

AMENDMENT OF SOLICITATION/ MODIFICATION OF CONTRACT		1. CONTRACT ID CODE		PAGE OF PAGES 1 54	
2. AMENDMENT/MODIFICATION NO. 0001		3. EFFECTIVE DATE 2/20/13		4. REQUISITION/PURCHASE REQ. NO.	
5. PROJECT NO. (If applicable)		6. ISSUED BY NASA/Johnson Space Center Attn: BH2/Miyoshi Thompson 2101 NASA Parkway Houston, Texas 77058-3696		7. ADMINISTERED BY (If other than Item 6) NASA/Johnson Space Center Attn: BH2/Miyoshi Thompson 2101 NASA Parkway Houston, TX 77058-3696	

8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State, and ZIP Code)

Jacobs Technology Inc.
600 William Northern Blvd.
Tullahoma, TN 37388

CODE	FACILITY CODE
(X)	9A. AMENDMENT OF SOLICITATION NO. NNJ13HA01C
X	9B. DATED (SEE ITEM 11) 2/12/2013
	10A. MODIFICATION OF CONTRACT/ORDER NO.
	10B. DATED (SEE ITEM 13)

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☒ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is ☐ is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:

(a) By completing Items 8 and 15, and returning ☐ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)
N/A13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS,
IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.(x)

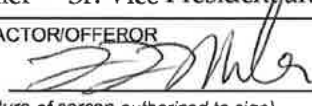
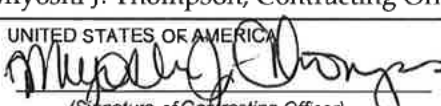
	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
X	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: Mutual Agreement of the Parties
	d. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor ☐ is not, ☒ is required to sign this document and return 3 copies to the issuing office.

14. description of amendment/modification (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

The purpose of this modification is to update and add clauses to the contract at no cost to the Government. See the list of changes on Page 2.

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print) Lon F. Miller - Sr. Vice President and General Manager		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Miyoshi J. Thompson, Contracting Officer	
15B. CONTRACTOR/OFFEROR  (Signature of person authorized to sign)	15C. DATE SIGNED 2/15/13	16B. UNITED STATES OF AMERICA BY  (Signature of Contracting Officer)	16C. DATE SIGNED 2/20/13

Section A:

1. Added Clause I.24 NONDISPLACEMENT OF QUALIFIED WORKERS.

Section H:

2. Updated Clause H.8 CROSS-WAIVER OF LIABILITY FOR INTERNATIONAL SPACE STATION ACTIVITIES OCT 2012.
3. Updated Clause H.9 CROSS-WAIVER OF LIABILITY FOR SCIENCE OR SPACE EXPLORATION ACTIVITIES UNRELATED TO THE INTERNATIONAL SPACE STATION OCT 2012.

Section I-1:

4. Added Clause 52.203-14 by reference.
5. Updated Clause 52.204-7 date to DEC. 2012
6. Updated Clause 52.222-54 date to JUL. 2012
7. Corrected Clause 52.245-1 to correct the alternate I clause.

Section I

8. Added Clause I.24, FAR 52.222-17, NONDISPLACEMENT OF QUALIFIED WORKERS.
9. Added FAR 52.227-15, REPRESENTATION OF LIMITED RIGHTS DATA AND RESTRICTED COMPUTER SOFTWARE by reference
10. Modified Clause I.11, FAR 52.227-14, RIGHTS IN DATA—GENERAL in full text (Corrected clerical errors, included the Limited Rights Notice, and included ALT III)
11. Modified title to Clause I.22, FAR 52.227-11, PATENT RIGHTS—OWNERSHIP BY THE CONTRACTOR in full text (Clarified that this clause applies to small entity subcontractors)

See Replacement Pages to follow. All terms and conditions remained unchanged

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SECTION H – SPECIAL CONTRACT REQUIREMENTS

H.1 LISTING OF CLAUSES INCORPORATED BY REFERENCE

Clause(s) at the beginning of this Section are incorporated by reference, with the same force and effect as if they were given in full text. Clauses incorporated by reference which require a fill-in by the Government include the text of the affected paragraph(s) only. This does not limit the clause to the affected paragraph(s). The Contractor is responsible for understanding and complying with the entire clause.

The following contract clauses pertinent to this section are hereby incorporated by reference:

I. FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1)

<u>CLAUSE NUMBER</u>	<u>DATE</u>	<u>TITLE</u>
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NONE

II. NASA FAR SUPPLEMENT (48 CFR CHAPTER 18) PROVISIONS

<u>CLAUSE NUMBER</u>	<u>DATE</u>	<u>TITLE</u>
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1852.208-81	NOV 2004	RESTRICTIONS ON PRINTING AND DUPLICATING
1852.223-75	FEB 2002	MAJOR BREACH OF SAFETY OR SECURITY (ALTERNATE 1) (FEB 2006)
1852.225-70	FEB 2000	EXPORT LICENSES (ALTERNATE 1) (FEB 2000) INSERT: LYNDON B. JOHNSON SPACE CENTER
1852.235-73	DEC 2006	FINAL SCIENTIFIC AND TECHNICAL REPORTS (ALTERNATE II) (DEC 2005)
1852.244-70	APR 1985	GEOGRAPHIC PARTICIPATION IN THE AEROSPACE PROGRAM
1852.246-70	MAR 1997	MISSION CRITICAL SPACE SYSTEMS PERSONNEL RELIABILITY PROGRAM

(End of Clauses Incorporated by Reference)

H.2 LIMITATION OF FUTURE CONTRACTING (NFS 1852.209-71) (DEC 1988)

- (a) The Contracting Officer has determined that this acquisition may give rise to a potential organizational conflict of interest. Accordingly, the attention of prospective offerors is invited to FAR Subpart 9.5 - Organizational Conflicts of Interest.
- (b) The nature of this conflict shall be described in accordance with, DRD MGMT-12 Organizational Conflict of Interest Mitigation Plan.
- (c) The restrictions upon future contracting are as follows:
- (1) If the Contractor, under the terms of this contract, or through the performance of tasks pursuant to this contract, is required to develop specifications or statements of work that are to be incorporated into a solicitation, the Contractor shall be ineligible to perform the work described in that solicitation as a prime or first-tier subcontractor under an ensuing NASA contract. This restriction shall remain in effect for a reasonable time, as agreed to by the Contracting Officer and the Contractor, sufficient to avoid unfair competitive advantage or potential bias (this time shall in no case be less than the duration of the initial production contract). NASA shall not unilaterally require the Contractor to prepare such specifications or statements of work under this contract.
 - (2) To the extent that the work under this contract requires access to proprietary, business confidential, or financial data of other companies, and as long as these data remain proprietary or confidential, the Contractor shall protect these data from unauthorized use and disclosure and agrees not to use them to compete with those other companies.

(End of clause)

H.3 REPRESENTATIONS, CERTIFICATIONS AND OTHER STATEMENTS OF OFFEROR

The completed provision FAR 52.204-8, annual Representations and Certifications, including any amended representation(s) made at paragraph (b) of the provision; and other representations, certifications and other statements contained as set forth in the Contractor's proposal number **NNJ11379802R** dated **December 6, 2012** are hereby incorporated into the resultant contract by reference with the same force and effects as if it were given in full text reference in this resulting contract.

(End of clause)

H.4 SMALL BUSINESS SUBCONTRACTING GOALS (JSC 52.219-90) (OCT 2006)

For purposes of this clause, the terms, “HUBZone Small Business Concern”, “Small Disadvantaged Business Concern”, “Service-Disabled, Veteran-Owned Small Business Concern”, “Veteran-Owned Small Business Concern”, “Women-Owned Small Business Concern”, and “Minority Serving Institutions (MSI)” are defined in paragraph 2.101 of the Federal Acquisition Regulation.

The total small business goal, expressed as a percent of total contract value including options, is ^{(b) (4)} percent. The small business percentage goal, includes the following goals expressed as a percent of total contract value:

Small Disadvantaged Business Concerns	^{(b) (4)} percent
Woman-Owned Small Business Concerns	percent
HUBZone Small Business Concerns	percent
Veteran-Owned Small Business Concern	percent
Service-Disabled, Veteran-Owned Small Business Concern	percent
Minority Serving Institutions	percent

(End of clause)

H.5 APPLICABILITY OF RIGHTS IN DATA

"FAR 52.227-17, Rights in Data--Special Works (incorporated by reference) only applies to a task or delivery order where this clause is explicitly incorporated by reference in said task or delivery order and only to video production deliverables produced under a subject task or delivery order. FAR 52.227-14, Rights in Data -- General applies to all other data."

(End of clause)

H.6 TASK ORDER PROCEDURES

- (a) Only the Contracting Officer may issue task orders to the Contractor, providing specific authorization or direction to perform work within the general scope of the JETS Statement of Work (SOW). The Contractor may incur costs under this contract in performance of task orders and task order modifications issued in accordance with this clause. No other costs are authorized unless otherwise specified in the contract or expressly authorized by the Contracting Officer.
- (b) Prior to issuing a task, the Contracting Officer will provide the Contractor with the following data:
 - (1) A functional description of the work identifying the objectives or results desired from the contemplated task order.

- (2) Proposed performance standards to be used as criteria for determining whether the work requirements have been met.
- (3) A request for a proposal from the Contractor to include:
 - (i) Contractor's proposed technical approach. The Contractor shall not simply copy the Government's requirements, a sound and rational technical approach shall be documented in the task order response.
 - (ii) Period of performance
 - (iii) Clearly discernable and appropriate cost information, including but not limited to a clear estimate using the rates established in Clause B.8-FULLY BURDENED RATE TABLE FOR PRICING COST REIMBURSEMENT (CR) TASK ORDER and any other information required to determine the reasonableness of the Contractor's proposal.
- (c) Within three business days (unless negotiated with the Contracting Officer and another time frame is explicitly and expressly stated in the task order) after receipt of the Contracting Officer's request, the Contractor shall submit a proposal conforming to the request. The Contractor shall provide any re-submittals or supplemental data requested by the Government within three business days (unless otherwise negotiated with the Contracting Officer and another time frame is explicitly and expressly agreed upon).
- (d) After review and any necessary discussions, the Contracting Officer may issue a task order to the Contractor containing, at a minimum, the following:
 - (1) Date of the order.
 - (2) Contract number and order number.
 - (3) Functional description of the work identifying the objectives or results desired from the task order, including special instructions or other information necessary for performance of the task.
 - (4) Performance standards, and where appropriate, quality assurance standards.
 - (5) Maximum dollar amount authorized (cost and fee or price).
 - (6) Any other resources (travel, materials, equipment, facilities, etc.) authorized.
 - (7) Delivery/performance schedule including start and end dates.
 - (8) If contract funding is by individual task order, accounting and appropriation data.
- (e) The Contractor shall provide acknowledgment of receipt to the Contracting Officer within one business day after receipt of the task order.

- (f) If time constraints do not permit issuance of a fully defined task order in accordance with the procedures -described in paragraphs (a) through (d), a task order which includes a ceiling price may be issued.
- (g) The Contracting Officer may amend task orders in the same manner in which they were issued.
- (h) In the event of a conflict between the requirements of the Task Order and the Contractor's approved proposal, the Task Order shall prevail.
- (i) Contractor shall submit data that communicates project status in accordance with the SOW, Project Schedule (DRD RV-01) and Regular Status Report/Summary Review (DRD RV-02)
- (j) In the event of a conflict between the requirements of the task order and the Contractor's approved task plan, the Task Order shall prevail.

(End of clause)

H.7 SAFETY AND HEALTH (NFS 1852.223-70) (APR 2002)

- (a) Safety is the freedom from those conditions that can cause death, injury, occupational illness, damage to or loss of equipment or property, or damage to the environment. NASA's safety priority is to protect: (1) the public, (2) astronauts and pilots, (3) the NASA workforce (including contractor employees working on NASA contracts), and (4) high-value equipment and property.
- (b) The Contractor shall take all reasonable safety and occupational health measures in performing this contract. The Contractor shall comply with all Federal, State, and local laws applicable to safety and occupational health and with the safety and occupational health standards, specifications, reporting requirements, and any other relevant requirements of this contract.
- (c) The Contractor shall take, or cause to be taken, any other safety, and occupational health measures the Contracting Officer may reasonably direct. To the extent that the Contractor may be entitled to an equitable adjustment for those measures under the terms and conditions of this contract, the equitable adjustment shall be determined pursuant to the procedures of the changes clause of this contract; provided, that no adjustment shall be made under this Safety and Health clause for any change for which an equitable adjustment is expressly provided under any other clause of the contract.
- (d) The Contractor shall immediately notify and promptly report to the Contracting Officer or a designee any accident, incident, or exposure resulting in fatality, lost-time occupational injury, occupational disease, contamination of property beyond any stated acceptable limits set forth in the contract Schedule; or property loss of \$25,000 or more, or Close Call (a situation or occurrence with no injury, no damage or only minor damage

(less than \$1,000) but possesses the potential to cause any type mishap, or any injury, damage, or negative mission impact) that may be of immediate interest to NASA, arising out of work performed under this contract. The Contractor is not required to include in any report an expression of opinion as to the fault or negligence of any employee. In addition, service contractors (excluding construction contracts) shall provide quarterly reports specifying lost-time frequency rate, number of lost-time injuries, exposure, and accident/incident dollar losses as specified in the contract Schedule.

(e) The Contractor shall investigate all work-related incidents, accidents, and Close Calls, to the extent necessary to determine their causes and furnish the Contracting Officer a report, in such form as the Contracting Officer may require, of the investigative findings and proposed or completed corrective actions.

(f) (1) The Contracting Officer may notify the Contractor in writing of any noncompliance with this clause and specify corrective actions to be taken. When the Contracting Officer becomes aware of noncompliance that may pose a serious or imminent danger to safety and health of the public, astronauts and pilots, the NASA workforce (including contractor employees working on NASA contracts), or high value mission critical equipment or property, the Contracting Officer shall notify the Contractor orally, with written confirmation. The Contractor shall promptly take and report any necessary corrective action.

(2) If the Contractor fails or refuses to institute prompt corrective action in accordance with subparagraph (f) (1) of this clause, the Contracting Officer may invoke the stop-work order clause in this contract or any other remedy available to the Government in the event of such failure or refusal.

(g) The Contractor (or subcontractor or supplier) shall insert the substance of this clause, including this paragraph (g) and any applicable Schedule provisions and clauses, with appropriate changes of designations of the parties, in all solicitations and subcontracts of every tier, when one or more of the following conditions exist:

(1) The work will be conducted completely or partly on premises owned or controlled by the Government.

(2) The work includes construction, alteration, or repair of facilities in excess of the simplified acquisition threshold.

(3) The work, regardless of place of performance, involves hazards that could endanger the public, astronauts and pilots, the NASA workforce (including Contractor employees working on NASA contracts), or high value equipment or property, and the hazards are not adequately addressed by Occupational Safety and Health Administration (OSHA) or Department of Transportation (DOT) regulations (if applicable).

(4) When the Contractor (or subcontractor or supplier) determines that the assessed risk and consequences of a failure to properly manage and control the

hazard(s) warrants use of the clause.

(h) The Contractor (or subcontractor or supplier) may exclude the provisions of paragraph (g) from its solicitation(s) and subcontract(s) of every tier when it determines that the clause is not necessary because the application of the OSHA and DOT (if applicable) regulations constitute adequate safety and occupational health protection. When a determination is made to exclude the provisions of paragraph (g) from a solicitation and subcontract, the Contractor must notify and provide the basis for the determination to the Contracting Officer. In subcontracts of every tier above the micro-purchase threshold for which paragraph (g) does not apply, the Contractor (or subcontractor or supplier) shall insert the substance of paragraphs (a), (b), (c), and (f) of this clause).

(i) Authorized Government representatives of the Contracting Officer shall have access to and the right to examine the sites or areas where work under this contract is being performed in order to determine the adequacy of the Contractor's safety and occupational health measures under this clause.

(j) The contractor shall continually update the safety and health plan when necessary. In particular, the Contractor shall furnish a list of all hazardous operations to be performed, and a list of other major or key operations required or planned in the performance of the contract, even though not deemed hazardous by the Contractor. NASA and the Contractor shall jointly decide which operations are to be considered hazardous, with NASA as the final authority. Before hazardous operations commence, the Contractor shall submit for NASA concurrence -

(1) Written hazardous operating procedures for all hazardous operations; and/or

(2) Qualification standards for personnel involved in hazardous operations.

(k) In the event of a conflict between JPR1700.1, JSC Safety and Health Handbook and this clause, the JPR 1700.1 requirement shall prevail.

(End of clause)

H.8 CROSS-WAIVER OF LIABILITY FOR INTERNATIONAL SPACE STATION ACTIVITIES (NFS 1852.228-76) (OCT ~~2009~~2012) (~~DEVIATION~~)(~~NASA PIC 9-11 dated 10/5/09~~)

(a) The Intergovernmental Agreement Among the Government of Canada, Governments of Member States of the European Space Agency, the Government of Japan, the Government of the Russian Federation, and the Government of the United States of America concerning Cooperation on the Civil International Space Station (IGA) for the International Space Station (ISS) contains a cross-waiver of liability provision to encourage participation in the exploration, exploitation, and use of outer

space through the ISS. The objective of this clause is to extend this cross-waiver of liability to NASA contracts in the interest of encouraging participation in the exploration, exploitation, and use of outer space through the International Space Station (ISS). The Parties intend that this cross-waiver of liability be broadly construed to achieve this objective.

(b) As used in this clause, the term:

(1) "Agreement" refers to any NASA Space Act agreement that contains the cross-waiver of liability provision authorized by 14 CFR Part 1266.102.

(2) "Damage" means:

(i) Bodily injury to, or other impairment of health of, or death of, any person;

(ii) Damage to, loss of, or loss of use of any property;

(iii) Loss of revenue or profits; or

(iv) Other direct, indirect, or consequential Damage.

(3) "Launch Vehicle" means an object, or any part thereof, intended for launch, launched from Earth, or returning to Earth which carries Payloads or persons, or both.

(4) "Partner State" includes each Contracting Party for which the IGA has entered into force, pursuant to Article 25 of the IGA or pursuant to any successor agreement. A Partner State includes its Cooperating Agency. It also includes any entity specified in the Memorandum of Understanding (MOU) between NASA and the Government of Japan to assist the Government of Japan's Cooperating Agency in the implementation of that MOU.

(5) "Party" means a party to a NASA Space Act agreement involving activities in connection with the ISS and a party that is neither the prime contractor under this contract nor a subcontractor at any tier.

(6) "Payload" means all property to be flown or used on or in a Launch Vehicle or the ISS.

(7) "Protected Space Operations" means all Launch or Transfer Vehicle activities, ISS activities, and Payload activities on Earth, in outer space, or in transit between Earth and outer space in implementation of the IGA, MOUs concluded pursuant to the IGA, implementing arrangements, and contracts to perform work in support of NASA's obligations under these Agreements. It includes, but is not limited to:

(i) Research, design, development, test, manufacture, assembly, integration, operation, or use of Launch or Transfer Vehicles, the ISS, Payloads, or instruments, as well as related support equipment and facilities and services; and

(ii) All activities related to ground support, test, training, simulation, or guidance and control equipment and related facilities or services. "Protected Space Operations" also includes all activities related to evolution of the ISS, as provided for in Article 14 of the IGA. "Protected Space Operations" excludes activities on Earth which are conducted on return from the ISS to develop further a Payload's product or process for use other than for ISS-related activities in implementation of the IGA.

(8) "Related Entity" means:

(i) A contractor or subcontractor of a Party or a Partner State at any tier;

(ii) A user or customer of a Party or a Partner State at any tier; or

(iii) A contractor or subcontractor of a user or customer of a Party or a Partner State at any tier. The terms “contractor” and “subcontractor” include suppliers of any kind.

(9) “Transfer Vehicle” means any vehicle that operates in space and transfers Payloads or persons or both between two different space objects, between two different locations on the same space object, or between a space object and the surface of a celestial body. A Transfer Vehicle also includes a vehicle that departs from and returns to the same location on a space object.

(c) Cross-waiver of liability:

(1) The Contractor agrees to a cross-waiver of liability pursuant to which it waives all claims against any of the entities or persons listed in paragraphs (c)(1)(i) through (c)(1)(iv) of this clause based on Damage arising out of Protected Space Operations. This cross-waiver shall apply only if the person, entity, or property causing the Damage is involved in Protected Space Operations and the person, entity, or property damaged is damaged by virtue of its involvement in Protected Space Operations. The cross-waiver shall apply to any claims for Damage, whatever the legal basis for such claims, against:

(i) A Party as defined in (b)(5) of this clause;

(ii) A Partner State other than the United States of America;

(iii) A Related Entity of any entity identified in paragraph (c)(1)(i) or (c)(1)(ii) of this clause; or

(iv) The employees of any of the entities identified in paragraphs (c)(1)(i) through (c)(1)(iii) of this clause.

(2) In addition, the contractor shall, by contract or otherwise, extend the cross-waiver of liability set forth in paragraph (c)(1) of this clause to its subcontractors at any tier by requiring them, by contract or otherwise, to:

(i) Waive all claims against the entities or persons identified in paragraphs (c)(1)(i) through (c)(1)(iv) of this clause; and

(ii) Require that their subcontractors waive all claims against the entities or persons identified in paragraphs (c)(1)(i) through (c)(1)(iv) of this clause.

(3) For avoidance of doubt, this cross-waiver of liability includes a cross-waiver of claims arising from the *Convention on International Liability for Damage Caused by Space Objects*, which entered into force on September 1, 1972, where the person, entity, or property causing the Damage is involved in Protected Space Operations and the person, entity, or property damaged is damaged by virtue of its involvement in Protected Space Operations.

(4) Notwithstanding the other provisions of this clause, this cross-waiver of liability shall not be applicable to:

(i) Claims between the Government and its own contractors or between its own contractors and subcontractors;

(ii) Claims made by a natural person, his/her estate, survivors or subrogees (except when a subrogee is a Party to an Agreement or is otherwise bound by the terms of this cross-waiver) for bodily injury to, or other impairment of health of, or death of, such person;

- (iii) Claims for Damage caused by willful misconduct;
- (iv) Intellectual property claims;
- (v) Claims for Damage resulting from a failure of the contractor to extend the cross-waiver of liability to its subcontractors and related entities, pursuant to paragraph (c)(2) of this clause;
- (vi) Claims by the Government arising out of or relating to the contractor's failure to perform its obligations under this contract.
- (5) Nothing in this clause shall be construed to create the basis for a claim or suit where none would otherwise exist.
- (6) This cross-waiver shall not be applicable when 49 U.S.C. Subtitle IX, Chapter. 701 is applicable.

(End of clause)

~~(a) The Intergovernmental Agreement (IGA) among the Government of Canada, Governments of Member States of the European Space Agency, the Government of Japan, the Government of the Russian Federation, and the Government of the United States of America concerning Cooperation on the Civil International Space Station for the International Space Station (ISS) contains a cross-waiver of liability provision to encourage participation in the exploration, exploitation, and use of outer space through the ISS. The Parties intend that this cross-waiver of liability be broadly construed to achieve this objective.~~

~~(b) As used in this clause, the term:~~

~~(1) "Agreement" refers to any NASA Space Act agreement that contains the cross-waiver of liability provision authorized by 14 CFR Part 1266.102.~~

~~(2) "Damage" means:~~

~~(i) Bodily injury to, or other impairment of health of, or death of, any person;~~

~~(ii) Damage to, loss of, or loss of use of any property;~~

~~(iii) Loss of revenue or profits; or~~

~~(iv) Other direct, indirect, or consequential damage.~~

~~(3) "Launch Vehicle" means an object, or any part thereof, intended for launch, launched from Earth, or returning to Earth which carries payloads or persons, or both.~~

~~(4) "Partner State" includes each Contracting Party for which the IGA has entered into force, pursuant to Article 25 of the IGA or pursuant to any successor agreement. A Partner State includes its Cooperating Agency. It also includes any entity specified in the Memorandum of Understanding (MOU) between NASA and the Government of Japan's Cooperating Agency in the implementation of that MOU.~~

- (5) ~~"Party" means a party to a NASA Space Act agreement involving activities in connection with the ISS and a party that is neither the prime contractor under this contract nor a subcontractor at any tier.~~
- (6) ~~"Payload" means all property to be flown or used on or in a Launch Vehicle or the ISS.~~
- (7) ~~"Protected Space Operations" means all Launch or Transfer Vehicle activities, ISS activities, and Payload activities on Earth, in outer space, or in transit between Earth and outer space in implementation of the IGA, MOUs concluded pursuant to the IGA, implementing agreements, and contracts to perform work in support of NASA's obligations under these Agreements. It includes, but is not limited to:~~
- ~~(i) Research, design, development, test, manufacture, assembly, integration, operation, or use of Launch or Transfer Vehicles, the ISS, Payloads, or instruments, as well as related support equipment and facilities and services; and~~
 - ~~(ii) All activities related to ground support, test, training, simulation, or guidance and control equipment and related facilities or services. "Protected Space Operations" also includes all activities related to evolution of the ISS, as provided for in Article 14 of the IGA. "Protected Space Operations" excludes activities on Earth which are conducted on return from the ISS to develop further a Payload's product or process for use other than for ISS related activities in implementation of the IGA.~~
- (8) ~~"Related Entity" means:~~
- ~~(i) A contractor or subcontractor of a Party or a Partner State at any tier;~~
 - ~~(ii) A user or customer of a Party or a Partner State at any tier; or~~
 - ~~(iii) A contractor or subcontractor of a user or customer of a Party or a Partner State at any tier. The terms "contractor" and "subcontractor" include suppliers of any kind.~~
- (9) ~~"Transfer Vehicle" means any vehicle that operates in space and transfers Payloads or persons or both between two different space objects, between two different locations on the same space object, or between a space object and the surface of a celestial body. A "Transfer Vehicle" also includes a vehicle that departs from and returns to the same location on a space object.~~
- (c)(1) ~~The Contractor agrees to a cross waiver of liability pursuant to which it waives all claims against any of the entities or persons listed in paragraphs (c)(1)(i) through (c)(1)(iv) of this clause based on Damage arising out of Protected Space Operations. This cross waiver shall apply only if the person, entity, or property causing the Damage is involved in Protected Space Operations and the person, entity, or property damaged is damaged by virtue of its involvement in Protected Space Operations. The cross waiver shall apply to any claims for Damage, whatever the legal basis for such claims, against:~~

- ~~—(i) A Party as defined in (B)(5) above;~~
- ~~—(ii) A Partner State other than the United States of America;~~
- ~~(iii) A Related Entity of any entity identified in paragraph (c)(1)(i) or (c)(1)(ii) of this clause; or~~
- ~~(iv) The employees of any of the entities identified in paragraphs (c)(1)(i) through (c)(1)(iii) of this clause.~~
- ~~(2) In addition, the contractor shall, by contract or otherwise, extend the cross waiver of liability set forth in paragraph (c)(1) of this clause to its subcontractors at any tier by requiring them, by contract or otherwise, to:~~
 - ~~(i) Waive all claims against the entities or persons identified in paragraphs (c)(1)(i) through (c)(1)(iv) of this clause; and~~
 - ~~(ii) Require that their subcontractors waive all claims against the entities or persons identified in paragraphs (c)(1)(i) through (c)(1)(iv) of this clause.~~
- ~~(3) For avoidance of doubt, this cross waiver of liability includes a cross waiver of claims arising from the *Convention on International Liability for Damage Caused by Space Objects*, which entered into force on September 1, 1972, where the person, entity, or property causing the Damage is involved in Protected Space Operations and the person, entity, or property damaged is damaged by virtue of its involvement in Protected Space Operations.~~
- ~~(4) Notwithstanding the other provisions of this clause, this cross waiver of liability shall not be applicable to:~~
 - ~~(i) Claims between the Government and its own contractors or between its own contractors and subcontractors;~~
 - ~~(i) Claims made by a natural person, his/her estate, survivors or subrogees (except when a subrogee is a Party to an Agreement or is otherwise bound by the terms of this cross waiver) for bodily injury to, or other impairment of health of, or death of, such person;~~
 - ~~(iii) Claims for Damage caused by willful misconduct;~~
 - ~~(iv) Intellectual property claims;~~
 - ~~(v) Claims for Damage resulting from a failure of the contractor to extend the cross-waiver of liability to its subcontractors and related entities, pursuant to paragraph (c)(2) of this clause; or~~

~~(vi) Claims by the Government arising out of or relating to the contractor's failure to perform its obligations under this contract.~~

~~(5) Nothing in this clause shall be construed to create the basis for a claim or suit where none would otherwise exist.~~

~~(6) This cross waiver shall not be applicable when 49 U.S.C. Subtitle IX, Chapter 701 is applicable.~~

~~(End of clause)~~

H.9 CROSS-WAIVER OF LIABILITY FOR SCIENCE OR SPACE EXPLORATION ACTIVITIES UNRELATED TO THE INTERNATIONAL SPACE STATION (NFS 1852.228-78) (OCT 2009/2012) (DEVIATION) (NASA PIC 9-11 dated 10/5/09)

(a) The purpose of this clause is to extend a cross-waiver of liability to NASA contracts for work done in support of Agreements between Parties involving Science or Space Exploration activities that are not related to the International Space Station (ISS) but involve a launch. This cross-waiver of liability shall be broadly construed to achieve the objective of furthering participation in space exploration, use, and investment.

(b) As used in this clause, the term:

(1) "Agreement" refers to any NASA Space Act agreement that contains the cross-waiver of liability provision authorized in 14 CFR Part 1266.104.

(2) "Damage" means:

(i) Bodily injury to, or other impairment of health of, or death of, any person;

(ii) Damage to, loss of, or loss of use of any property;

(iii) Loss of revenue or profits; or

(iv) Other direct, indirect, or consequential Damage;

(3) "Launch Vehicle" means an object, or any part thereof, intended for launch, launched from Earth, or returning to Earth which carries Payloads or persons, or both.

(4) "Party" means a party to a NASA Space Act agreement for Science or Space Exploration activities unrelated to the ISS that involve a launch and a party that is neither the prime contractor under this contract nor a subcontractor at any tier hereof.

(5) "Payload" means all property to be flown or used on or in a Launch Vehicle.

(6) "Protected Space Operations" means all Launch or Transfer Vehicle activities and Payload activities on Earth, in outer space, or in transit between Earth and outer space in implementation of an Agreement for Science or Space Exploration activities unrelated to the ISS that involve a launch. Protected Space Operations begins at the signature of the Agreement and ends when all activities done in implementation of the Agreement are completed. It includes, but is not limited to:

(i) Research, design, development, test, manufacture, assembly, integration, operation, or use of Launch or Transfer Vehicles, Payloads, or instruments, as well as related support equipment and facilities and services; and

(ii) All activities related to ground support, test, training, simulation, or guidance and control equipment, and related facilities or services.

Protected Space Operations excludes activities on Earth which are conducted on return from space to develop further a payload's product or process other than for the activities within the scope of an Agreement.

(7) "Related entity" means:

(i) A contractor or subcontractor of a Party at any tier;

(ii) A user or customer of a Party at any tier; or

(iii) A contractor or subcontractor of a user or customer of a Party at any tier.

The terms "contractors" and "subcontractors" include suppliers of any kind.

(8) "Transfer Vehicle" means any vehicle that operates in space and transfers Payloads or persons or both between two different space objects, between two different locations on the same space object, or between a space object and the surface of a celestial body. A Transfer Vehicle also includes a vehicle that departs from and returns to the same location on a space object.

(c) Cross-waiver of liability:

(1) The Contractor agrees to a waiver of liability pursuant to which it waives all claims against any of the entities or persons listed in paragraphs (c)(1)(i) through (c)(1)(iv) of this clause based on Damage arising out of Protected Space Operations. This cross-waiver shall apply only if the person, entity, or property causing the Damage is involved in Protected Space Operations and the person, entity, or property damaged is damaged by virtue of its involvement in Protected Space Operations. The waiver shall apply to any claims for Damage, whatever the legal basis for such claims, against:

(i) A Party;

(ii) A Party to another NASA Agreement or contract that includes flight on the same Launch Vehicle;

(iii) A Related Entity of any entity identified in paragraphs (c)(1)(i) or (c)(1)(ii) of this clause; or

(iv) The employees of any of the entities identified in (c)(1)(i) through (iii) of this clause.

(2) The Contractor agrees to extend the cross-waiver of liability as set forth in paragraph (c)(1) of this clause to its own subcontractors at all tiers by requiring them, by contract or otherwise, to:

(i) Waive all claims against the entities or persons identified in paragraphs (c)(1)(i) through (c)(1)(iv) of this clause; and

(ii) Require that their Related Entities waive all claims against the entities or persons identified in paragraphs (c)(1)(i) through (c)(1)(iv) of this clause.

(3) For avoidance of doubt, this cross-waiver of liability includes a cross-waiver of claims arising from the *Convention on International Liability for Damage Caused by Space Objects*, entered into force on 1 September 1972, in which the person, entity, or property causing the Damage is involved in Protected Space Operations and the person, entity, or property damaged is damaged by virtue of its involvement in Protected Space Operations.

(4) Notwithstanding the other provisions of this clause, this cross-waiver of liability shall not be applicable to:

(i) Claims between the Government and its own contractors or between its own contractors and subcontractors;

(ii) Claims made by a natural person, his/her estate, survivors, or subrogees (except when a subrogee is a Party to an Agreement or is otherwise bound by the terms of this cross-waiver) for bodily injury to, or other impairment of health, or death of such person;

(iii) Claims for Damage caused by willful misconduct;

(iv) Intellectual property claims;

(v) Claims for damages resulting from a failure of the contractor to extend the cross-waiver of liability to its subcontractors and related entities, pursuant to paragraph (c)(2) of this clause; or

(vi) Claims by the Government arising out of or relating to a contractor's failure to perform its obligations under this contract.

(5) Nothing in this clause shall be construed to create the basis for a claim or suit where none would otherwise exist.

(6) This cross-waiver shall not be applicable when 49 U.S.C. Subtitle IX, Chapter 701 is applicable.

(End of clause)

~~(a) The purpose of this clause is to extend a cross-waiver of liability to NASA contracts for work done in support of Agreements between Parties involving Science or Space Exploration activities, unrelated to the International Space Station (ISS), but which involve a launch. This cross-waiver of liability shall be broadly construed to achieve the objective of furthering participation in space exploration, use, and investment.~~

~~(b) As used in this clause, the term:~~

~~(1) "Agreement" refers to any NASA Space Act agreement that contains the cross-waiver of liability provision authorized in 14 CFR 1266.104.~~

~~(2) "Damage" means:~~

~~(i) Bodily injury to, or other impairment of health of, or death of, any person;~~

~~(ii) Damage to, loss of, or loss of use of any property;~~

~~(iii) Loss of revenue or profits; or~~

~~(iv) Other direct, indirect, or consequential Damage;~~

~~(3) "Launch Vehicle" means an object, or any part thereof, intended for launch, launched from Earth, or returning to Earth which carries Payloads or persons, or both.~~

~~(4) "Party" means a party to a NASA Space Act agreement for Science or Space Exploration activities, unrelated to the ISS, but which involve a launch and a party that is neither the prime contractor under this contract nor a subcontractor at any tier hereto.~~

~~(5) "Payload" means all property to be flown or used on or in a Launch Vehicle.~~

~~(6) "Protected Space Operations" means all Launch or Transfer Vehicle activities and Payload activities on Earth, in outer space, or in transit between Earth and outer space in implementation of an Agreement for Science or Space Exploration activities, unrelated to the ISS, but which involve a launch. Protected Space Operations begins at the signature of the Agreement and ends when all activities done in implementation of the agreement are completed. It includes, but is not limited to:~~

~~(i) Research, design, development, test, manufacture, assembly, integration, operation, or use of Launch or Transfer Vehicles, Payloads, or instruments, as well as related support equipment and facilities and services; and~~

~~(ii) All activities related to ground support, test, training, simulation, or guidance and control equipment, and related facilities or services.~~

~~Protected Space Operations excludes activities on Earth which are conducted on return from space to develop further a Payload's product or process other than for the activities within the scope of an Agreement.~~

~~(7) "Related entity" means:~~

~~(i) A contractor or subcontractor of a Party at any tier;~~

~~(ii) A user or customer of a party at any tier; or~~

~~(iii) A contractor or subcontractor of a user or customer of a Party at any tier.~~

~~The terms "contractors" and "subcontractors" include suppliers of any kind.~~

~~(c) Cross waiver of liability:~~

~~(1) The contractor agrees to a waiver of liability pursuant to which it waives all claims against any of the entities or persons listed in paragraphs (c)(1)(i) through (c)(1)(iv) of this clause based on Damage arising out of Protected Space Operations.~~

~~This cross waiver shall apply only if the person, entity, or property causing the Damage is involved in Protected Space Operations and the person, entity, or property damaged is damaged by virtue of its involvement in Protected Space Operations. The waiver shall apply to any claims for Damage, whatever the legal basis for such claims, against:~~

~~(i) A Party;~~

~~(ii) A Party to another NASA Agreement or contract that includes flight on the same Launch Vehicle;~~

~~(iii) A Related Entity of any of the entities identified in (c)(1)(i) or (c)(1)(ii) of this clause; or~~

~~(iv) The employees of any of the entities identified in (c)(1)(i) through (c)(1)(iii) of this clause.~~

~~(2) The contractor agrees to extend the cross waiver of liability as set forth in paragraph (c)(1) of this clause to its own subcontractors at all tiers by requiring them, by contract or otherwise, to:~~

~~(i) Waive all claims against the entities or persons identified in paragraphs (c)(1)(i) through (c)(1)(iv) of this clause; and~~

~~(ii) Require that their Related Entities waive all claims against the entities or persons identified in paragraph (c)(1)(i) through (c)(1)(iv) of this clause.~~

~~(3) For avoidance of doubt, this cross waiver includes a cross waiver of claims arising from the *Convention on International Liability for Damage Caused by Space Objects*, which entered into force on September 1, 1972, where the person, entity, or property causing the Damage is involved in Protected Space Operations and the person, entity, or property damaged is damaged by virtue of its involvement in Protected Space Operations.~~

~~(4) Notwithstanding the other provisions of this clause, this cross waiver of liability shall not be applicable to:~~

~~(i) Claims between the Government and its own contractors or between its own~~

~~contractors and subcontractors;~~

~~(ii) Claims made by a natural person, his/her estate, survivors, or subrogees (except when a subrogee is a Party to an Agreement or is otherwise bound by the terms of this cross waiver) for bodily injury to, or other impairment of health, or death of such person;~~

~~(iii) Claims for Damage caused by willful misconduct;~~

~~(iv) Intellectual property claims;~~

~~(v) Claims for damages resulting from failure of the contractor to extend the cross-waiver of liability to its subcontractors and related entities, pursuant to paragraph (e)(2) of this clause; or~~

~~(vi) Claims by the Government arising out of or relating to a contractor's failure to perform its obligations under this contract.~~

~~(5) Nothing in this clause shall be construed to create the basis for a claim or suit where none would otherwise exist.~~

~~(6) This cross waiver shall not be applicable when 49 U.S.C. Subtitle IX, Chapter 701 is applicable.~~

~~(End of clause)~~

H.10 KEY PERSONNEL AND FACILITIES (NFS 1852.235-71) (MAR 1989)

(a) The personnel and/or facilities listed below are considered essential to the work being performed under this contract. Before removing, replacing, or diverting any of the listed or specified personnel or facilities, the Contractor shall (1) notify the Contracting Officer reasonably in advance and (2) submit justification (including proposed substitutions) in sufficient detail to permit evaluation of the impact on this contract.

(b) The Contractor shall make no diversion without the Contracting Officer's written consent; provided that the Contracting Officer may ratify in writing the proposed change, and that ratification shall constitute the Contracting Officer's consent required by this clause.

(c) The list of personnel and/or facilities (shown below or as specified in the contract Schedule) may, with the consent of the contracting parties, be amended from time to time during the course of the contract to add or delete personnel and/or facilities.

Key Personnel: (Includes full name and position title)

Lon Miller, General Manager

(b) (4)

(b) (4)

Key Facilities: 2224 Bay Area Blvd., Houston TX, 77508

(End of clause)

H.11 OBSERVANCE OF LEGAL HOLIDAYS (NFS 1852.242-72) (AUG 1992)
(ALTERNATE 1) (SEPT 1989)

(a) The on-site Government personnel observe the following holidays:

New Year's Day	Labor Day
Martin Luther King, Jr.'s Birthday	Columbus Day
President's Day	Veterans Day
Memorial Day	Thanksgiving Day
Independence Day	Christmas Day

Any other day designated by Federal statute, Executive order, or the President's proclamation.

(b) When any holiday falls on a Saturday, the preceding Friday is observed. When any holiday falls on a Sunday, the following Monday is observed. Observance of such days by Government personnel shall not by itself be cause for an additional period of performance or entitlement of compensation except as set forth within the contract.

(c) On-site personnel assigned to this contract shall not be granted access to the installation during the holidays in paragraph (a) of the clause, except as follows: the Contractor shall provide sufficient on-site personnel to perform round-the-clock requirements of critical work already in process, unless otherwise instructed by the Contracting Officer or authorized representative. If the Contractor's on-site personnel work during a holiday other than those in paragraph (a) of this clause, no form of holiday or other premium compensation shall be reimbursed as either a direct or indirect cost. However, this does not preclude reimbursement for authorized overtime work that would have been overtime regardless of the status of the day as a holiday.

(d) The Contractor shall place identical requirements, including this paragraph, in all subcontracts that require performance of work on-site, unless otherwise instructed by the Contracting Officer.

(End of clause)

H.12 ENVIRONMENTAL AND ENERGY CONSERVATION REQUIREMENTS (JSC 52.223-93) (Feb 2011)

(a) The Contractor shall ensure that all work performed and equipment used to fulfill the requirements of this contract are in compliance with all Federal, state, and local regulations and public laws, and the following NASA JSC directives: JPR 8550.1, JSC Environmental Compliance Procedural Requirements; JPR 8553.1, JSC Environmental Management System Manual; JWI 8553.1, EMS Aspect/Impact Assessment and EMP Process; NPR 8570.1, Energy Efficiency and Water Conservation; and JWI 8570.1, Energy Conservation. The Contractor shall provide data on affirmative procurement, waste reduction activity, energy efficient product procurement, and ozone depleting substances in accordance with NPR 8530.1.

(b) The Government remains the owner and operator of record for all environmental activities conducted at NASA owned properties unless otherwise documented in a signed agreement between NASA and the Contractor. The Contractor is advised that activities performed at JSC and associated facilities are subject to Federal, state and local regulatory agency inspections to review compliance with environmental laws and regulations. For on-site issues, JSC's Environmental Office will be the single point of contact with Federal and state regulatory agencies and their representatives unless otherwise directed by the Contracting Officer or the Environmental Office. The Contractor shall immediately notify the JSC Environmental Office when contacted by external regulatory agency representatives and shall cooperate fully. The Contractor shall complete, maintain, and make available to the Contracting Officer, JSC Environmental Office, JSC Energy Manager, or regulatory agency personnel all documentation relating to environmental compliance matters under applicable laws. The Contractor shall immediately notify the JSC Environmental Office upon issuance of a Notice of Violation or noncompliance to the Contractor.

(c) Should a Notice of Violation, Notice of Noncompliance, Notice of Deficiency, or similar regulatory agency notice be issued to the Government as a facility owner/operator on account of the actions or inactions of the Contractor or one of its subcontractors in the performance of work under this contract, the Contractor shall fully cooperate with the Government in correcting any problems and defending against regulatory assessment of any civil fines or penalties arising out of such actions or inactions.

(End of clause)

H.13 ADMINISTRATIVE LEAVE (JSC 52.242-94) (SEP 2008)

(a) When the NASA installation grants administrative leave to its Government employees (e.g., as a result of inclement weather, potentially hazardous conditions, or other special circumstances), the following personnel should also be dismissed upon notification of a center closure provided by the Contracting Officer:

1. Contractor personnel working on-site; and
2. Contractor personnel dedicated to the contract effort who are
 - a) working off-site within 10 miles of JSC; and
 - b) unable to perform their NASA contract duties at their off-site location because their normal place of business has been or is expected to be negatively impacted by an emergency situation (e.g. has sustained damage, has been evacuated, etc.).

However, the contractor shall provide sufficient on-site personnel to perform round-the-clock requirements of critical work already in process, unless otherwise instructed by the Contracting Officer or authorized representative.

(b) Administrative leave granted under this clause shall be subject to modification or termination by the Contracting Officer and in all instances shall be subject to the availability of funds. The cost of salaries and wages to the Contractor for the period of any such excused absence shall be a reimbursable item of cost under this contract for effected employees in accordance with the Contractor's established accounting policy.

1. If a labor hour-based contract, administrative leave granted under this clause shall be accounted for consistent with productive hours under this contract for employees in accordance with the Contractor's established accounting policy.

2. For fixed price contracts based on other than labor hours for deliverables, the Contracting Officer and Contractor shall as a precondition to any reimbursement negotiate an advanced agreement to determine the appropriate method in which to grant administrative leave under this clause.

3. All invoices requesting payment under this clause shall be marked as "Administrative Leave in accordance with 52.242-94, Administrative Leave." All such invoices paid will be subject to review, audit, and revision when routine operations recommence.

(c) The Contractor shall include this clause in all services subcontracts that include personnel in the categories described in (a) above.

(End of clause)

H.14 WORK IN PROGRESS (WIP) REPORTING FOR ON-SITE VS. OFF-SITE WORK

For on-site Johnson Space Center work in progress reporting, the contractor shall only supply its labor costs associated with that work to the controlling JSC organization for that organization to establish the total cost of the item and coordinate establishment of the property record at JSC.

WIP performed off-site by the contractor shall be reported by the contractor IAW NASA FAR Supplement 1845.7101 "Instructions For Preparing NASA Form 1018" and controlled in accordance with FAR 52.245-1 (Aug 2010).

(End of clause)

H.15 SUBCONTRACTING WITH RUSSIAN ENTITIES FOR GOODS OR SERVICES

(a) Definitions: In this provision:

(1) The term "Russian entities" means:

(A) Russian persons, or

(B) Entities created under Russian law or owned, in whole or in part, by Russian persons or companies including, but not limited to, the following:

(i) The Russian Federal Space Agency (Roscosmos),

(ii) Any organization or entity under the jurisdiction or control of Roscosmos, or

(iii) Any other organization, entity, or element of the Government of the Russian Federation.

(2) The term "extraordinary payments" means payments in cash or in kind made or to be made by the United States Government prior to July 1, 2016, for work to be performed or services to be rendered prior to that date necessary to meet United States obligations under the Agreement Concerning Cooperation on the Civil International Space Station, with annex, signed at Washington January 29, 1998, and entered into force March 27, 2001, or any protocol, agreement, memorandum of understanding, or contract related thereto.

(b) This clause implements the reporting requirement in section 6(i) of the Iran, North Korea, and Syria Nonproliferation Act. The provisions of this clause are without prejudice to the question of whether the Contractor or its subcontractor(s) are making extraordinary payments under section 6(a) or fall within the exceptions in section 7(1)(B) of the Act. NASA has applied the restrictions in the Act to include funding of Russian entities via U.S. Contractors.

(c)(1) The Contractor shall not subcontract with Russian entities without first receiving written approval from the CO. In order to obtain this written approval to subcontract

with any Russian entity as defined in paragraphs (a), the Contractor shall provide the CO with the following information related to each planned new subcontract and any change to an existing subcontract with entities that fit the description in paragraph (a):

(A) A detailed description of the subcontracting entity, including its name, address, and a point of contact, as well as a detailed description of the proposed subcontract including the specific purpose of payments that will be made under the subcontract.

(B) The Contractor shall provide certification that the subcontracting entity is not, at the date of the subcontract approval request, on any of the lists of proscribed denied parties, specially designated nationals and entities of concern found at:

BIS's Listing of Entities of Concern (see
<http://www.access.gpo.gov/bis/ear/pdf/744spir.pdf>)
BIS's List of Denied Parties (see <http://www.bis.doc.gov/dpl/Default.shtm>)
OFAC's List of Specially Designated Nationals (Adobe® PDF format) (see
<http://www.treas.gov/offices/enforcement/ofac/sdn/t11sdn.pdf>)
List of Unverified Persons in Foreign Countries (see
http://www.bis.doc.gov/Enforcement/UnverifiedList/unverified_parties.html)
State Department's List of Parties Statutorily Debarred for Arms Export Control
Act Convictions (see <http://www.pmddtc.state.gov/debar059.htm>)
State Department's Lists of Proliferating Entities (see
<http://www.state.gov/t/isn/c15231.htm>)

(2) Unless relief is granted by the CO, the information necessary to obtain approval to subcontract shall be provided to the CO 30 business days prior to executing any planned subcontract with entities defined in paragraph (a).

(d) After receiving approval to subcontract, the Contractor shall provide the CO with a report every six months that documents the individual payments made to an entity in paragraph (a). The reports are due on July 15th and January 15th. The July 15th report shall document all of the individual payments made from the previous January through June. The January 15th report shall document all of the individual payments made from the previous July through December. The content of the report shall provide the following information for each time a payment is made to an entity in paragraph (a):

- (1) The name of the entity
- (2) The subcontract number
- (3) The amount of the payment
- (4) The date of the payment

(e) The CO may direct the Contractor to provide additional information for any other prospective or existing subcontract at any tier. The CO may direct the Contractor to terminate for the convenience of the Government any subcontract at any tier with an entity described in paragraph (a), subject to an equitable adjustment.

(f) Notwithstanding FAR 52.216-7, "Allowable Cost and Payments," on or after June 30,

2016 the Contractor shall be responsible to make payments to entities defined in paragraph (a) of this provision. Any subcontract with entities defined in paragraph (a), therefore, shall be completed in sufficient time to permit the U.S. Government to make extraordinary payments on subcontracts with Russian entities on or before June 30, 2016.

(g) The Contractor shall include the substance of this clause in all its subcontracts, and shall require such inclusion in all other subcontracts of any tier. The Contractor shall be responsible to obtain written approval from the CO to enter into any tier subcontract that involves entities defined in paragraph (a).

(End of Clause)

H.16 EXTERNAL CUSTOMER EFFORT

The Government may allow nonexclusive, non-government use of Engineering and ARES Directorate facilities, Attachment J-25, by the contractor under this contract. If found appropriate by the Government through the Contracting Officer, the contractor and Government shall enter into a Reimbursable Space Act Agreement (RSAA) which will outline the benefit the Government will derive from the contractor's non-government use of designated property through rental receipts along with the terms and conditions related to the use of this equipment.

The contractor's use of such property for such purposes shall be subject to the terms and conditions of this contract.

The Government recognizes the benefit it derives from the contractor's non-government use of designated property through rental receipts as defined under the RSAA and that this benefit through the contractor's ability to provide non-government use services to its customers is dependent upon the reliability of the contractor's access to the designated property.

The contractor shall deliver (b) (4) in labor cost off-set over the life of the JETS contract. The contractor's External Customer Plan (DRD MGMT-10) provides additional details on this commitment.

The property authorized for non-Government use along with the terms and conditions for the use of this designated equipment will be set forth in the RSAA. Any dispute associated with this clause and/or the contractor's exercise of its authority for non-governmental use of the designated property shall be subject to the "Disputes" clause of this contract.

The Government reserves the right to enter into other reimbursable agreements within NASA or with other entities. Such agreements (e.g., Internal Task Agreements, Space Act Agreements) may require contractor support. In the case that contractor support is required in the execution of these other agreements; the contractor shall support these efforts via task orders issued by the Contracting Officer. As a matter of protocol and courtesy, the

Government will provide notice before entering into other reimbursable agreements that would interfere with performance of a RSAA between the contractor and the Government or any other contractor work. The Government's intent is to avoid interfering with the execution of contractor agreements.

(End of clause)

H. 17 ASSOCIATE CONTRACTOR AGREEMENTS (ACA) FOR JETS ACTIVITIES

(a) The success of the JETS Contract is dependent on the efforts of multiple Contractors. At a minimum, the Contractor shall develop, maintain and adhere to ACAs with the following contracts and their successors:

- i. The contractors that provide IT support services at JSC (end user services, desktop management, data center services, communication services, applications services, web based services, and media services)

ACES – Agency Consolidated End-User Services Contract
EPIC – Engineering Products Integration Contract

- ii. The contractor that provides facility services and maintenance at JSC

FSS – Facility Support Services

- iii. The contractor that provides quality and safety support services to the S&MA Directorate at JSC

SMASSC – Safety and Mission Assurance Support Services Contract
CISS – Center Institutional Safety Support Contract

- iv. The other contractors that provides support to the JSC Engineering Directorate.

EFS – Engineering Fabrication Services Contract
CRAVE II – Crew, Robotics, Avionics and Vehicle Equipment
CAMS II – Calibration and Metrology Services II
SEETS – Specialized Engineering, Evaluation and Test Services

- v. Contracts supporting other directorates, programs and offices at JSC which may interface with JETS

FBMS – Financial and Business Management Services Contract
BC – Bioastronautics Contract
International Space Station (ISS) Vehicle Sustaining Engineering Contract
CEV – Orion Crew Exploration Vehicle Contract

The Contractor shall develop, maintain and adhere to ACA's with any other interfaces the Contractor deems necessary to avoid negatively impacting the JETS contract work.

The Contractor shall make all ACAs available to the JETS Contracting Officer (CO) and Contracting Officer's Technical Representative (COTR).

- (b) The Contractor shall document agreements with other associate Contractors described in (a) above via Associate Contractor Agreements. The Government will not be a party in such Associate Contractor Agreements. All costs associated with such agreements are included in the negotiated price of this contract. Any additional ACA required shall be developed, modified and kept current at no additional cost to the Government. In order to achieve efficient and effective implementation of JETS operations; the Contractor shall establish the means for coordination and exchange of information with associate Contractors. The information to be exchanged shall be that required by the Contractors in the execution of their respective contract requirements. The Contractors are strongly encouraged to seek out and foster cooperative efforts that will benefit JETS with increased safety, efficiency, and productivity.
- (c) The Contractor is not relieved of any contract requirements or entitled to any adjustments to the contract terms because of the failure to resolve a disagreement with an associate Contractor. Liability for the improper disclosure of any proprietary data contained in or referenced by any agreement shall rest with the parties to the agreement, and not the Government.

(End of clause)

H.18 GOVERNMENT-FURNISHED COMPUTER SOFTWARE AND RELATED TECHNICAL DATA

(a) Definitions. As used in this clause—

“Government-furnished computer software” or “GFCS” means computer software: (1) in the possession of, or directly acquired by, the Government whereby the Government has title or Government purpose license rights thereto; and (2) subsequently furnished to the Contractor for performance of a Government contract.

“Computer software,” “data” and “technical data” have the meaning provided in the Federal Acquisition Regulations (FAR) Subpart 2.1—Definitions and the Rights in Data – General clause (FAR 52.227-14).

(b) The Government shall furnish to the Contractor the GFCS described in Section J-23 of this contract. The Government shall furnish related technical data needed for the intended use of the GFCS.

(c) Use of GFCS and related technical data. The Contractor shall use the GFCS and related technical data, and any modified or enhanced versions thereof, only for

performing work under this contract unless otherwise provided for in this contract or approved by the Contracting Officer.

(1) The Contractor shall not, without the express written permission of the Contracting Officer, reproduce, distribute copies, perform publicly, display publicly, release, or disclose the GFCS or related technical data to any person except for the performance of work under this contract.

(2) The Contractor shall not modify or enhance the GFCS unless this contract specifically identifies the modifications and enhancements as work to be performed. If the GFCS is modified or enhanced pursuant to this contract, the Contractor shall provide to the Government the complete source code, if any, of the modified or enhanced GFCS.

(3) Allocation of rights associated with any GFCS or related technical data modified or enhanced under this contract shall be defined by the FAR Rights in Data clause(s) included in this contract. If no Rights in Data clause is included in the contract, then the FAR Rights in Data – General (FAR 52.227-14) shall apply to all data first produced in the performance of this contract.

(4) The Contractor may provide the GFCS, and any modified or enhanced versions thereof, to subcontractors as required for the performance of work under this contract. Before release of the GFCS, and any modified or enhanced versions thereof, to such subcontractors (at any tier), the Contractor shall insert, or require the insertion of, this clause, including this paragraph (c)(4), suitably modified to reflect the relationship of the parties, in all such subcontracts (regardless of tier).

(d) The Government provides the GFCS in an “AS-IS” condition. The Government makes no warranty with respect to the serviceability and/or suitability of the GFCS for contract performance.

(e) The Contracting Officer may by written notice, at any time—

- (1) Increase or decrease the amount of GFCS under this contract;
- (2) Substitute other GFCS for the GFCS previously furnished, to be furnished, or to be acquired by the Contractor for the Government under this contract;
- (3) Withdraw authority to use the GFCS or related technical data; or
- (4) Instruct the Contractor to return or dispose of the GFCS and related technical data.

(f) Title to or license rights in GFCS. The Government shall retain title to or license rights in all GFCS. Title to or license rights in GFCS shall not be affected by its incorporation into or attachment to any data not owned by or licensed to the Government.

(g) Waiver of Claims and Indemnification. The Contractor agrees to waive any and all claims against the Government and shall indemnify and hold harmless the Government, its agents, and employees from every claim or liability, including attorneys fees, court costs, and expenses, arising out of, or in any way related to, the misuse or unauthorized modification, reproduction, release, performance, display, or disclosure of the GFCS and related technical data by the Contractor or by any person to whom the Contractor has released or disclosed such GFCS or related technical data.

(End of clause)

H.19 CALIBRATION

(b) (4)

(End of clause)

H.20 RESERVED**H.21 RECEIVING INSPECTION AND TEST FACILITY (RITF) UTILIZATION**

The Contractor shall utilize the services of the RITF to the maximum extent practicable. Services provided by the RITF include: failure analysis; electrical, electronic, and electromechanical (EEE) part screening; metallic alloy testing for mechanical, chemical, and physical properties; fastener screening; and NASA unique and NASA approved IPC electronic workmanship training.

(End of clause)

H.22 USE OF JSC FABRICATION CAPABILITY

The Contractor shall utilize the services of the JSC fabrication capability located in buildings 9 and 10 to the maximum extent practicable for manufacturing, fabrication, assembly, and metal finishing utilized under this contract, the total cost of which would otherwise be a direct charge to this contract.

(End of clause)

H.23 MITIGATION OF ORGANIZATIONAL CONFLICTS OF INTEREST

(a) Mitigation plan. The Organizational Conflict of Interest Mitigation Plan and its obligations are hereby incorporated in the contract by reference.

(b) Changes.

(1) Either the Contractor or the Government may propose changes to the Organizational Conflict of Interest Mitigation Plan. Such changes are subject to the mutual agreement of the parties and will become effective only upon incorporating the change into the plan by

contract amendment.

(2) In the event that the Government and the Contractor cannot agree upon a mutually acceptable change, the Government reserves the right to make a unilateral change to the OCI Plan as necessary, with the approval of the head of the contracting activity, subject to Contractor appeal as provided in the Disputes clause.

(c) Violation. The Contractor shall report any violation of the Organizational Conflict of Interest Mitigation Plan, whether by its own personnel or those of the Government or other contractors, to the Contracting Officer. This report shall include a description of the violation and the actions the Contractor has taken or proposes to take to mitigate and avoid repetition of the violation. After conducting such further inquiries and discussions as may be necessary, the Contracting Officer and the Contractor shall agree on appropriate corrective action, if any, or the Contracting Officer will direct corrective action.

(d) Breach. Any breach of the above restrictions or any nondisclosure or misrepresentation of any relevant facts required regarding organizational conflicts of interests to be disclosed may result in termination of this contract for default or other remedies as may be available under law or regulation.

(e) Subcontracts. The Contractor shall include the substance of this clause, including this paragraph (e), in subcontracts where the work includes or may include tasks related to the organizational conflict of interest. The terms “Contractor” and “Contracting Officer” shall be appropriately modified to reflect the change in parties and to preserve the Government’s rights.

(End of clause)

H.24 DISCLOSURE OF ORGANIZATIONAL CONFLICT OF INTEREST AFTER CONTRACT AWARD

(a) If the Contractor identifies an actual or potential organizational conflict of interest that has not already been adequately disclosed and resolved (or waived in accordance with FAR 9.503), the Contractor shall make a prompt and full disclosure in writing to the Contracting Officer. This disclosure shall include a description of the action the Contractor has taken or proposes to take in order to resolve the conflict. This reporting requirement also includes subcontractors’ actual or potential organizational conflicts of interest not adequately disclosed and resolved prior to award.

(b) Mitigation Plan. If there is a mitigation plan in the contract, the Contractor shall periodically update the plan, based on changes such as changes to the legal entity, the overall structure of the organization, subcontractor arrangements, contractor management, ownership, ownership relationships, or modification of the work scope.

(End of clause)

[END OF SECTION]

SECTION I – CONTRACT CLAUSES

I.1 LISTING OF CLAUSES INCORPORATED BY REFERENCE

Clause(s) at the beginning of this Section are incorporated by reference, with the same force and effect as if they were given in full text. Clauses incorporated by reference which require a fill-in by the Government include the text of the affected paragraph(s) only. This does not limit the clause to the affected paragraph(s). The Contractor is responsible for understanding and complying with the entire clause.

I. FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1)

<u>Clause Number</u>	<u>Date</u>	<u>Title</u>
52.202-1	JAN 2012	DEFINITIONS
52.203-3	APR 1984	GRATUITIES
52.203-5	APR 1984	COVENANT AGAINST CONTINGENT FEES
52.203-6	SEP 2006	RESTRICTIONS ON SUBCONTRACTOR SALES TO THE GOVERNMENT
52.203-7	OCT 2010	ANTI-KICKBACK PROCEDURES
52.203-8	JAN 1997	CANCELLATION, RESCISSION, AND RECOVERY OF FUNDS FOR ILLEGAL OR IMPROPER ACTIVITY
52.203-10	JAN 1997	PRICE OR FEE ADJUSTMENT FOR ILLEGAL OR IMPROPER ACTIVITY
52.203-12	OCT 2010	LIMITATION ON PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS
52.203-13	APR 2010	CONTRACTOR CODE OF BUSINESS ETHICS AND CONDUCT
<u>52.203-14</u>	<u>DEC 2007</u>	<u>DISPLAY OF HOTLINE POSTER(S)</u>
52.204-2	AUG 1996	SECURITY REQUIREMENTS
52.204-4	MAY 2011	PRINTED OR COPIED DOUBLE-SIDED ON

RECYCLED PAPER

52.204-7	FEB-DEC 2012	CENTRAL CONTRACTOR REGISTRATION
52.204-9	JAN 2011	PERSONAL IDENTITY VERIFICATION OF CONTRACTOR PERSONNEL
52.204-10	FEB 2012	REPORTING EXECUTIVE COMPENSATION AND FIRST-TIER SUBCONTRACT AWARDS
52.209-6	DEC 2010	PROTECTING THE GOVERNMENT'S INTEREST WHEN SUBCONTRACTING WITH CONTRACTORS DEBARRED, SUSPENDED, OR PROPOSED FOR DEBARMENT
52.209-10	MAY 2012	PROHIBITION ON CONTRACTING WITH INVERTED DOMESTIC CORPORATIONS
52.210-1	APR 2011	MARKET RESEARCH
52.211-5	AUG 2000	MATERIAL REQUIREMENTS
52.211-15	APR 2008	DEFENSE PRIORITY AND ALLOCATION REQUIREMENTS
52.215-2	OCT 2010	AUDIT AND RECORDS- NEGOTIATION
52.215-8	OCT 1997	ORDER OF PRECEDENCE – UNIFORM CONTRACT FORMAT
52.215-11	AUG 2011	PRICE REDUCTION FOR DEFECTIVE COST OR PRICING DATA – MODIFICATIONS
52.215-13	OCT 2010	SUBCONTRACTOR COST OR PRICING DATA – MODIFICATIONS
52.215-14	OCT 2010	INTEGRITY OF UNIT PRICES
52.215-15	OCT 2010	PENSION ADJUSTMENTS AND ASSET REVERSIONS
52.215-17	OCT 1997	WAIVER OF FACILITIES CAPITAL COST OF MONEY
52.215-18	JUL 2005	REVERSION OR ADJUSTMENT OF PLANS FOR POSTRETIREMENT BENEFITS (PRB) OTHER THAN PENSIONS

52.215-21	OCT 2010	REQUIREMENTS FOR COST OR PRICING DATA OR INFORMATION OTHER THAN COST OR PRICING DATA – MODIFICATIONS (ALTERNATE III) (OCT 1997) (c) Submit the cost portion of the proposal via the following electronic media: email and/or compact disc (CD)
52.215-22	OCT 2009	LIMITATIONS ON PASS-THROUGH CHARGES – IDENTIFICATION OF SUBCONTRACT EFFORT
52.215-23	OCT 2009	LIMITATIONS ON PASS-THROUGH CHARGES. (ALT.1) (OCT 2009)
52.216-7	JUN 2011	ALLOWABLE COST AND PAYMENT
52.217-8	NOV 1999	OPTION TO EXTEND SERVICES The Contracting Officer may exercise the option by written notice to the Contractor within <u>60 calendar days</u> prior to the Option start date.
52.217-9	MAR 2000	OPTION TO EXTEND THE TERM OF THE CONTRACT (a) The Government may extend the term of this contract by written notice to the Contractor no later than <u>30 calendar days</u> prior to the Option start date, provided that the Government gives the Contractor a preliminary written notice of its intent to extend at least <u>60 calendar days</u> before the contract expires. The preliminary notice does not commit the Government to an extension. (c) The total duration of this contract, including the exercise of any options under this clause, shall not exceed <u>9 years</u> .
52.219-4	JAN 2011	NOTICE OF PRICE EVALUATION PREFERENCE FOR HUB ZONE SMALL BUSINESS CONCERNS
52.219-8	JAN 2011	UTILIZATION OF SMALL BUSINESS CONCERNS
52.219-9	JAN 2011	SMALL BUSINESS SUBCONTRACTING PLAN; (ALTERNATE II) (OCT 2001)
52.219-14	NOV 2011	LIMITATIONS ON SUBCONTRACTING

52.219-16	JAN 1999	LIQUIDATED DAMAGES – SUBCONTRACTING PLAN
52.219-25	DEC 2010	SMALL DISADVANTAGED BUSINESS PARTICIPATION PROGRAM – DISADVANTAGED STATUS AND REPORTING
52.219-28	APR 2012	POST-AWARD SMALL BUSINESS PROGRAM REPRESENTATION
52.222-1	FEB 1997	NOTICE TO THE GOVERNMENT OF LABOR DISPUTES
52.222-2	JUL 1990	PAYMENT FOR OVERTIME PREMIUMS (a) The use of overtime is authorized under this contract if the overtime premium does not exceed zero or the overtime premium is paid work - -
52.222-3	JUN 2003	CONVICT LABOR
52.222-4	JUL 2005	CONTRACT WORK HOURS AND SAFETY STANDARDS ACT - OVERTIME COMPENSATION
52.222-21	FEB 1999	PROHIBITION OF SEGREGATED FACILITIES
52.222-26	MAR 2007	EQUAL OPPORTUNITY
52.222-35	SEP 2010	EQUAL OPPORTUNITY FOR SPECIAL DISABLED VETERANS, VETERANS OF THE VIETNAM ERA, AND OTHER ELIGIBLE VETERANS
52.222-36	OCT 2010	AFFIRMATIVE ACTION FOR WORKERS WITH DISABILITIES
52.222-37	SEP 2010	EMPLOYMENT REPORTS ON SPECIAL DISABLED VETERANS, VETERANS OF THE VIETNAM ERA, AND OTHER ELIGIBLE VETERANS
52.222-40	DEC 2010	NOTIFICATION OF EMPLOYEE RIGHTS UNDER THE NATIONAL LABOR RELATIONS ACT
52.222-41	NOV 2007	SERVICE CONTRACT ACT OF 1965
52.222-50	FEB 2009	COMBATING TRAFFICKING IN PERSONS
52.222-54	JAN-JUL 2012 <u>2009</u>	EMPLOYMENT ELIGIBILITY VERIFICATION

52.223-2	JUL 2012	AFFIRMATIVE PROCUREMENT OF BIO-BASED PRODUCTS UNDER SERVICE AND CONSTRUCTION CONTRACTS
52.223-3	JAN 1997	HAZARDOUS MATERIAL IDENTIFICATION AND MATERIAL SAFETY DATA; (ALTERNATE I) (JUL 1995) (b) None
52.223-5	MAY 2011	POLLUTION PREVENTION AND RIGHT-TO-KNOW INFORMATION; (ALTERNATE I) (MAY 2011) (ALTERNATE II) (MAY 2011)
52.223-6	MAY 2001	DRUG-FREE WORKPLACE
52.223-10	MAY 2011	WASTE REDUCTION PROGRAM
52.223-12	MAY 1995	REFRIGERATION EQUIPMENT AND AIR CONDITIONERS
52.223-15	DEC 2007	ENERGY EFFICIENCY IN ENERGY-CONSUMING PRODUCTS
52.223-17	MAY 2008	AFFIRMATIVE PROCUREMENT OF EPA-DESIGNATED ITEMS IN SERVICE AND CONSTRUCTION CONTRACTS
52.223-18	AUG 2011	ENCOURAGING CONTRACTOR POLICIES TO BAN TEXT MESSAGING WHILE DRIVING
52.223-19	MAY 2011	COMPLIANCE WITH ENVIRONMENTAL MANAGEMENT SYSTEMS
52.224-1	APR 1984	PRIVACY ACT NOTIFICATION
52.224-2	APR 1984	PRIVACY ACT
52.225-1	FEB 2009	BUY AMERICAN ACT - SUPPLIES
52.225-13	JUN 2008	RESTRICTIONS ON CERTAIN FOREIGN PURCHASES
52.227-1	DEC 2007	AUTHORIZATION AND CONSENT
52.227-2	DEC 2007	NOTICE AND ASSISTANCE REGARDING PATENT

AND COPYRIGHT INFRINGEMENT

<u>52.227-15</u>	<u>DEC 2007</u>	<u>REPRESENTATION OF LIMITED RIGHTS DATA AND RESTRICTED COMPUTER SOFTWARE</u>
52.227-16	JUN 1987	ADDITIONAL DATA REQUIREMENTS
52.227-17	DEC 2007	RIGHTS IN DATA--SPECIAL WORKS
52.228-7	MAR 1996	INSURANCE – LIABILITY TO THIRD PERSONS
52.230-2	MAY 2012	COST ACCOUNTING STANDARDS
52.230-6	JUN 2010	ADMINISTRATION OF COST ACCOUNTING STANDARD
52.232-9	APR 1984	LIMITATION ON WITHHOLDING OF PAYMENTS
52.232-17	OCT 2010	INTEREST
52.232-18	APR 1984	AVAILABILITY OF FUNDS
52.232-19	APR 1984	AVAILABILITY OF FUNDS FOR THE NEXT FISCAL YEAR
52.232-22	APR 1984	LIMITATION OF FUNDS
52.232-23	JAN 1986	ASSIGNMENT OF CLAIMS
52.232-25	OCT 2008	PROMPT PAYMENT; (ALTERNATE I) (FEB 2002)
52.232-33	OCT 2003	PAYMENT BY ELECTRONIC FUNDS TRANSFER – OTHER THAN CENTRAL CONTRACTOR REGISTRATION
52.233-1	JUL 2002	DISPUTES; (ALTERNATE I) (DEC 1991)
52.233-3	AUG 1996	PROTEST AFTER AWARD; (ALTERNATE I) (JUN 1985)
52.233-4	OCT 2004	APPLICABLE LAW FOR BREACH OF CONTRACT CLAIM
52.237-2	APR 1984	PROTECTION OF GOVERNMENT BUILDINGS, EQUIPMENT, AND VEGETATION

52.237-3	JAN 1991	CONTINUITY OF SERVICES
52.239-1	AUG 1996	PRIVACY OR SECURITY
52.242-1	AUG 1984	NOTICE OF INTENT TO DISALLOW COSTS
52.242-3	MAY 2001	PENALTIES FOR UNALLOWABLE COSTS
52.242-13	JUL 1995	BANKRUPTCY
52.243-6	APR 1984	CHANGE ORDER ACCOUNTING
52.243-7	APR 1984	NOTIFICATION OF CHANGES
52.244-2	OCT 2010	SUBCONTRACTS
52.244-5	DEC 1996	COMPETITION IN SUBCONTRACTING
52.244-6	DEC 2010	SUBCONTRACTS FOR COMMERCIAL ITEMS
52.245-1	APR 2012	GOVERNMENT PROPERTY; (ALTERNATE I) (APR 2012)
52.245-9	APR 2012	USE & CHARGES
52.246-24	FEB 1997	LIMITATION OF LIABILITY – HIGH VALUE ITEMS
52.246-25	FEB 1997	LIMITATION OF LIABILITY – SERVICES
52.247-63	JUN 2003	PREFERENCE FOR U.S. FLAG AIR CARRIERS
52.247-64	FEB 2006	PREFERENCE FOR PRIVATELY OWNED U.S. FLAG COMMERCIAL VESSELS
52.247-68	FEB 2006	REPORT OF SHIPMENT (RESHIP)
52.248-1	OCT 2010	VALUE ENGINEERING
52.249-6	MAY 2004	TERMINATION (COST-REIMBURSEMENT)
52.249-14	APR 1984	EXCUSABLE DELAYS
52.251-1	APR 2012	GOVERNMENT SUPPLY SOURCES
52.253-1	JAN 1991	COMPUTER GENERATED FORMS

II. NASA FAR SUPPLEMENT (48 CFR CHAPTER 18) PROVISIONS

<u>CLAUSE NUMBER</u>	<u>DATE</u>	<u>TITLE</u>
1852.203-70	JUN 2001	DISPLAY OF INSPECTOR GENERAL HOTLINE POSTERS
1852.216-89	JUL 1997	ASSIGNMENT AND RELEASE FORMS
1852.219-74	SEP 1990	USE OF RURAL AREA SMALL BUSINESS
1852.219-75	MAY 1999	SMALL BUSINESS SUBCONTRACTING REPORTING
1852.219-77	MAY 2009	NASA MENTOR PROTÉGÉ PROGRAM
1852.219-79	MAY 2009	MENTOR REQUIREMENTS AND EVALUATION
1852.223-74	MAR 1996	DRUG AND ALCOHOL-FREE WORKPLACE
1852.228-75	OCT 1988	MINIMUM INSURANCE COVERAGE
1852.235-70	DEC 2006	CENTER FOR AEROSPACE INFORMATION
1852.237-70	DEC 1988	EMERGENCY EVACUATION PROCEDURES
1852.242-78	APR 2001	EMERGENCY MEDICAL SERVICES AND EVACUATION
1852.243-71	MAR 1997	SHARED SAVING

(End of Clauses Incorporated by Reference)

I.2 APPROVAL OF CONTRACT (FAR 52.204-1) (DEC 1989)

This contract is subject to the written approval of the JSC Procurement Officer and shall not be binding until so approved.

(End of clause)

I.3 UPDATES OF PUBLICLY AVAILABLE INFORMATION REGARDING RESPONSIBILITY MATTERS (FAR 52.209-9) (FEB 2012)

(a) The Contractor shall update the information in the Federal Awardee Performance and Integrity Information System (FAPIIS) on a semi-annual basis, throughout the life of the contract, by posting the required information in the Central Contractor Registration database via <https://www.acquisition.gov>.

(b) As required by section 3010 of the Supplemental Appropriations Act, 2010 (Pub. L. 111-212), all information posted in FAPIIS on or after April 15, 2011, except past performance reviews, will be publicly available. FAPIIS consists of two segments—

(1) The non-public segment, into which Government officials and the Contractor post information, which can only be viewed by—

(i) Government personnel and authorized users performing business on behalf of the Government; or

(ii) The Contractor, when viewing data on itself; and

(2) The publicly-available segment, to which all data in the non-public segment of FAPIIS is automatically transferred after a waiting period of 14 calendar days, except for—

(i) Past performance reviews required by subpart 42.15;

(ii) Information that was entered prior to April 15, 2011; or

(iii) Information that is withdrawn during the 14-calendar-day waiting period by the Government official who posted it in accordance with paragraph (c)(1) of this clause.

(c) The Contractor will receive notification when the Government posts new information to the Contractor's record.

(1) If the Contractor asserts in writing within 7 calendar days, to the Government official who posted the information, that some of the information posted to the non-public segment of FAPIIS is covered by a disclosure exemption under the Freedom of Information Act, the Government official who posted the information must within 7 calendar days remove the posting from FAPIIS and resolve the issue in accordance with agency Freedom of Information procedures, prior to reposting the releasable information. The contractor must cite 52.209-9 and request removal within 7 calendar days of the posting to FAPIIS.

(2) The Contractor will also have an opportunity to post comments regarding information that has been posted by the Government. The comments will be retained as long as the associated information is retained, i.e., for a total period of 6 years. Contractor comments will remain a part of the record unless the Contractor revises them.

(3) As required by section 3010 of Pub. L. 111-212, all information posted in FAPIIS on or after April 15, 2011, except past performance reviews, will be publicly available.

(d) Public requests for system information posted prior to April 15, 2011, will be handled under Freedom of Information Act procedures, including, where appropriate, procedures promulgated under E.O. 12600.

(End of clause)

I.4 NOTIFICATION OF OWNERSHIP CHANGES (FAR 52.215-19) (OCT 1997)

a) The Contractor shall make the following notifications in writing:

(1) When the Contractor becomes aware that a change in its ownership has occurred, or is certain to occur, that could result in changes in the valuation of its capitalized assets in

the accounting records, the Contractor shall notify the Administrative Contracting Officer (ACO) within 30 days.

(2) The Contractor shall also notify the ACO within 30 days whenever changes to asset valuations or any other cost changes have occurred or are certain to occur as a result of a change in ownership.

(b) The Contractor shall—

(1) Maintain current, accurate, and complete inventory records of assets and their costs;

(2) Provide the ACO or designated representative ready access to the records upon request;

(3) Ensure that all individual and grouped assets, their capitalized values, accumulated depreciation or amortization, and remaining useful lives are identified accurately before and after each of the Contractor's ownership changes; and

(4) Retain and continue to maintain depreciation and amortization schedules based on the asset records maintained before each Contractor ownership change.

(c) The Contractor shall include the substance of this clause in all subcontracts under this contract that meet the applicability requirement of FAR 15.408(k).

(End of clause)

I.5 ORDERING (FAR 52.216-18) (OCT 1995)

(a) Any supplies and services to be furnished under this contract shall be ordered by issuance of task orders by the individuals or activities designated in the Schedule. Such orders may be issued from **May 1, 2013** through **April 30, 2018**.

(b) All task orders are subject to the terms and conditions of this contract. In the event of conflict between a task order and this contract, the contract shall control.

(c) If mailed, a task order is considered "issued" when the Government deposits the order in the mail. Orders may be issued orally, by facsimile, or by electronic commerce methods only if authorized in the contract.

(End of clause)

I.6 ORDER LIMITATIONS (52.216-19) (OCT 1995)

(a) *Minimum order.* When the Government requires supplies or services covered by this contract in an amount of less than **\$25,000**, the Government is not obligated to purchase, nor is the Contractor obligated to furnish, those supplies or services under the contract.

(b) *Maximum order.* The Contractor is not obligated to honor -

- (1) Any order for a single item in excess of **\$350,000,000**;
- (2) Any order for a combination of items in excess of **\$350,000,000**; or
- (3) A series of orders from the same ordering office within **30** days that together call for quantities exceeding the limitation in subparagraph (b)(1) or (2) of this section.

(c) If this is a requirements contract (*i.e.*, includes the Requirements clause at subsection 52.216-21 of the Federal Acquisition Regulation (FAR)), the Government is not required to order a part of any one requirement from the Contractor if that requirement exceeds the maximum-order limitations in paragraph (b) of this section.

(d) Notwithstanding paragraphs (b) and (c) of this section, the Contractor shall honor any order exceeding the maximum order limitations in paragraph (b), unless that order (or orders) is returned to the ordering office within 10 calendar days after issuance, with written notice stating the Contractor's intent not to ship the item (or items) called for and the reasons. Upon receiving this notice, the Government may acquire the supplies or services from another source.

(End of clause)

I.7 INDEFINITE QUANTITY (52.216-22) (OCT 1995)

(a) This is an indefinite-quantity contract for the supplies or services specified, and effective for the period stated, in the Schedule. The quantities of supplies and services specified in the Schedule are estimates only and are not purchased by this contract.

(b) Delivery or performance shall be made only as authorized by orders issued in accordance with the Ordering clause. The Contractor shall furnish to the Government, when and if ordered, the supplies or services specified in the Schedule up to and including the quantity designated in the Schedule as the "maximum." The Government shall order at least the quantity of supplies or services designated in the Schedule as the "minimum."

(c) Except for any limitations on quantities in the Order Limitations clause or in the Schedule, there is no limit on the number of orders that may be issued. The Government may issue orders requiring delivery to multiple destinations or performance at multiple locations.

(d) Any order issued during the effective period of this contract and not completed within that period shall be completed by the Contractor within the time specified in the order. The contract shall govern the Contractor's and Government's rights and obligations with respect to that order to the same extent as if the order were completed during the contract's effective period; provided, that the Contractor shall not be required to make any deliveries under this contract after **12 months after the contract end date**.

(End of clause)

I.8 NOTICE FOR PRICE EVALUATION ADJUSTMENT FOR SMALL DISADVANTAGED BUSINESS CONCERNS (FAR 52.219-23)(OCT 2008)

(a) *Definitions.* As used in this clause—

“Historically black college or university” means an institution determined by the Secretary of Education to meet the requirements of 34 CFR 608.2. For the Department of Defense (DoD), the National Aeronautics and Space Administration (NASA), and the Coast Guard, the term also includes any nonprofit research institution that was an integral part of such a college or university before November 14, 1986.

“Minority institution” means an institution of higher education meeting the requirements of Section 365(3) of the Higher Education Act of 1965 (20 U.S.C. 1067k), including a Hispanic-serving institution of higher education, as defined in Section 502(a) of the Act (20 U.S.C. 1101a).

“Small disadvantaged business concern” means an Offeror that represents, as part of its offer, that it is a small business under the size standard applicable to this acquisition; and either—

- (1) It has received certification by the Small Business Administration as a small disadvantaged business concern consistent with 13 CFR Part 124, subpart B; and
- (i) No material change in disadvantaged ownership and control has occurred since its certification;
- (ii) Where the concern is owned by one or more disadvantaged individuals, the net worth of each individual upon whom the certification is based does not exceed \$750,000 after taking into account the applicable exclusions set forth at 13 CFR 124.104(c)(2); and
- (iii) It is identified, on the date of its representation, as a certified small disadvantaged business concern in the database maintained by the Small Business Administration (PRO-Net).
- (2) It has submitted a completed application to the Small Business Administration or a Private Certifier to be certified as a small disadvantaged business concern in accordance with 13 CFR Part 124, subpart B, and a decision on that application is pending, and that no material change in disadvantaged ownership and control has occurred since its application was submitted. In this case, in order to receive the benefit of a price evaluation adjustment, an Offeror must receive certification as a small disadvantaged business concern by the Small Business Administration prior to contract award; or

(3) Is a joint venture as defined in 13 CFR 124.1002(f).

(b) Evaluation adjustment.

- (1) The Contracting Officer will evaluate offers by adding a factor of 10 percent to the price of all offers, except—
- (i) Offers from small disadvantaged business concerns that have not waived the adjustment; and
- (ii) An otherwise successful offer from a historically black college or university or minority institution.

- (2) The Contracting Officer will apply the factor to a line item or a group of line items on which award may be made. The Contracting Officer will apply other evaluation factors described in the solicitation before application of the factor. The factor may not be applied if using the adjustment would cause the contract award to be made at a price that exceeds the fair market price by more than the factor in paragraph (b)(1) of this clause.
- (c) *Waiver of evaluation adjustment.* A small disadvantaged business concern may elect to waive the adjustment, in which case the factor will be added to its offer for evaluation purposes. The agreements in paragraph (d) of this clause do not apply to offers that waive the adjustment.
- (N/A) Offeror elects to waive the adjustment.
- (d) Agreements.
- (1) A small disadvantaged business concern, that did not waive the adjustment, agrees that in performance of the contract, in the case of a contract for—
- (i) Services, except construction, at least 50 percent of the cost of personnel for contract performance will be spent for employees of the concern;
 - (ii) Supplies (other than procurement from a nonmanufacturer of such supplies), at least 50 percent of the cost of manufacturing, excluding the cost of materials, will be performed by the concern;
 - (iii) General construction, at least 15 percent of the cost of the contract, excluding the cost of materials, will be performed by employees of the concern; or
 - (iv) Construction by special trade contractors, at least 25 percent of the cost of the contract, excluding the cost of materials, will be performed by employees of the concern.
- (2) A small disadvantaged business concern submitting an offer in its own name shall furnish in performing this contract only end items manufactured or produced by small disadvantaged business concerns in the United States or its outlying areas. This paragraph does not apply to construction or service contracts.

(End of clause)

I.9 STATEMENT OF EQUIVALENT RATES FOR FEDERAL HIRES (FAR 52.222-42) (MAY 1989)

In compliance with the Service Contract Act of 1965, as amended, and the regulations of the Secretary of Labor (29 CFR part 4), this clause identifies the classes of service employees expected to be employed under the contract and states the wages and fringe benefits payable to each if they were employed by the contracting agency subject to the provisions of 5 U.S.C. 5341 or 5332. This statement can be found in Attachment J.12, Wage Determination and is for informational purposes only, and should not be considered as a wage determination.

(End of clause)

I.10 NOTICE OF RADIOACTIVE MATERIALS (FAR 52.223-7) (JAN 1997)

(a) The Contractor shall notify the Contracting Officer or designee, in writing, five days prior to the delivery of, or prior to completion of any servicing required by this contract of, items containing either (1) radioactive material requiring specific licensing under the regulations issued pursuant to the Atomic Energy Act of 1954, as amended, as set forth in Title 10 of the Code of Federal Regulations, in effect on the date of this contract, or (2) other radioactive material not requiring specific licensing in which the specific activity is greater than 0.002 microcuries per gram or the activity per item equals or exceeds 0.01 microcuries. Such notice shall specify the part or parts of the items which contain radioactive materials, a description of the materials, the name and activity of the isotope, the manufacturer of the materials, and any other information known to the Contractor which will put users of the items on notice as to the hazards involved (OMB No. 9000-0107).

(b) If there has been no change affecting the quantity of activity, or the characteristics and composition of the radioactive material from deliveries under this contract or prior contracts, the Contractor may request that the Contracting Officer or designee waive the notice requirement in paragraph (a) of this clause. Any such request shall-

(1) Be submitted in writing;

(2) State that the quantity of activity, characteristics, and composition of the radioactive material have not changed; and

(3) Cite the contract number on which the prior notification was submitted and the contracting office to which it was submitted.

(c) All items, parts, or subassemblies which contain radioactive materials in which the specific activity is greater than 0.002 microcuries per gram or activity per item equals or exceeds 0.01 microcuries, and all containers in which such items, parts or subassemblies are delivered to the Government shall be clearly marked and labeled as required by the latest revision of MIL-STD 129 in effect on the date of the contract.

(d) This clause, including this paragraph (d), shall be inserted in all subcontracts for radioactive materials meeting the criteria in paragraph (a) of this clause.

(End of clause)

**I.11 RIGHTS IN DATA-GENERAL (FAR 52.227-14) (DEC 2007) ALT II (DEC 2007)
(As modified by NASA FAR Supplement 1852.227-14)**

(a) Definitions. As used in this clause--

“Computer database” or “database” means a collection of recorded information in a form capable of, and for the purpose of, being stored in, processed, and operated on by a computer. The term does not include computer software.

“Computer software”—

(1) Means

(i) Computer programs that comprise a series of instructions, rules, routines, or statements, regardless of the media in which recorded, that allow or cause a computer to perform a specific operation or series of operations; and

- (ii) Recorded information comprising source code listings, design details, algorithms, processes, flow charts, formulas, and related material that would enable the computer program to be produced, created, or compiled.
- (2) Does not include computer databases or computer software documentation.

“Computer software documentation” means owner’s manuals, user’s manuals, installation instructions, operating instructions, and other similar items, regardless of storage medium, that explain the capabilities of the computer software or provide instructions for using the software.

“Data” means recorded information, regardless of form or the media on which it may be recorded. The term includes technical data and computer software. The term does not include information incidental to contract administration, such as financial, administrative, cost or pricing, or management information.

“Form, fit, and function data” means data relating to items, components, or processes that are sufficient to enable physical and functional interchangeability, and data identifying source, size, configuration, mating, and attachment characteristics, functional characteristics, and performance requirements. For computer software it means data identifying source, functional characteristics, and performance requirements but specifically excludes the source code, algorithms, processes, formulas, and flow charts of the software.

“Limited rights” means the rights of the Government in limited rights data as set forth in the Limited Rights Notice of subparagraph (g)(2) if included in this clause.

“Limited rights data” means data, other than computer software, that embody trade secrets or are commercial or financial and confidential or privileged, to the extent that such data pertain to items, components, or processes developed at private expense, including minor modifications.

“Restricted computer software” means computer software developed at private expense and that is a trade secret; is commercial or financial and is confidential or privileged; or is copyrighted computer software, including minor modifications of the computer software.

“Restricted rights,” as used in this clause, means the rights of the Government in restricted computer software, as set forth in a Restricted Rights Notice of paragraph (g) if included in this clause, or as otherwise may be provided in a collateral agreement incorporated in and made part of this contract, including minor modifications of such computer software.

“Technical data” means recorded information (regardless of the form or method of the recording) of a scientific or technical nature (including computer databases and computer software documentation). This term does not include computer software or financial, administrative, cost or pricing, or management data or other information incidental to contract administration. The term includes recorded information of a scientific or technical nature that is included in computer databases (See 41 U.S.C. 403(8)).

“Unlimited rights” means the right of the Government to use, disclose, reproduce, prepare derivative works, distribute copies to the public, and perform publicly and display publicly, in any manner and for any purpose, and to have or permit others to do so.

(b) Allocation of rights.

(1) Except as provided in paragraph (c) of this clause, the Government shall have unlimited rights in—

- (i) Data first produced in the performance of this contract;
- (ii) Form, fit, and function data delivered under this contract;
- (iii) Data delivered under this contract (except for restricted computer software) that constitute manuals or instructional and training material for installation, operation, or routine maintenance and repair of items, components, or processes delivered or furnished for use under this contract; and
- (iv) All other data delivered under this contract unless provided otherwise for limited rights data or restricted computer software in accordance with paragraph (g) of this clause.

(2) The Contractor shall have the right to—

- (i) Assert copyright in data first produced in the performance of this contract to the extent provided in paragraph (c)(1) of this clause;
- (ii) Use, release to others, reproduce, distribute, or publish any data first produced or specifically used by the Contractor in the performance of this contract, unless provided otherwise in paragraph (d) of this clause;
- (iii) Substantiate use of, add or correct limited rights, restricted rights, or copyright notices and to take other appropriate action, in accordance with paragraphs (e) and (f) of this clause; and
- (iv) Protect from unauthorized disclosure and use those data that are limited rights data or restricted computer software to the extent provided in paragraph (g) of this clause.

(c) Copyright—

(1) Data first produced in the performance of this contract.

- (i) Unless provided otherwise in paragraph (d) of this clause, the Contractor may establish, without prior approval of the Contracting Officer, claim to copyright in scientific and technical articles based on or containing data first produced in the performance of this contract and published in academic, technical or professional journals, symposia proceedings or similar works. The prior, express written permission of the Contracting Officer is required to assert copyright in all other data first produced in the performance of this contract.
- (ii) When authorized to assert copyright to the data, the Contractor shall affix the applicable copyright notices of 17 U.S.C. 401 or 402, and acknowledgment of Government sponsorship (including contract number).
- (iii) For data other than computer software, the Contractor grants to the Government, and others acting on its behalf, a paid-up, nonexclusive,

irrevocable worldwide license in such copyrighted data to reproduce, prepare derivative works, distribute copies to the public, and perform publicly and display publicly, by or on behalf of the Government. For computer software, the Contractor grants to the Government and others acting on its behalf, a paid-up nonexclusive, irrevocable worldwide license in such copyrighted computer software to reproduce, prepare derivative works, and perform publicly and display publicly (but not to distribute copies to the public) by or on behalf of the Government.

- (2) Data not first produced in the performance of this contract. The Contractor shall not, without prior written permission of the Contracting Officer, incorporate in data delivered under this contract any data not first produced in the performance of this contract unless the Contractor—
 - (i) Identifies the data; and
 - (ii) Grants to the Government, or acquires on its behalf, a license of the same scope as set forth in subparagraph (c)(1) of this clause or; if such data are restricted computer software, the Government shall acquire a copyright license as set forth in subparagraph (g)(4) of this clause (if included in this contract) or as otherwise provided in a collateral agreement incorporated in or made part of this contract.
- (3) Removal of copyright notices. The Government will not remove any authorized copyright notices placed on data pursuant to this paragraph (c), and will include such notices on all reproductions of the data.
- (d) Release, publication and use of data. The Contractor shall have the right to use, release to others, reproduce, distribute, or publish any data first produced or specifically used by the Contractor in the performance of this contract, except—
 - (1) As prohibited by Federal law or regulation (e.g., export control or national security laws or regulations);
 - (2) As expressly set forth in this contract; or
 - (3) If the Contractor receives or is given access to data necessary for the performance of this contract which contain restrictive markings, the Contractor shall treat the data in accordance with such markings unless otherwise specifically authorized otherwise in writing by the Contracting Officer.
- (4)(i) The Contractor agrees not to establish claim to copyright, publish or release to others any computer software first produced in the performance of this contract without the Contracting Officer's prior written permission.
 - (ii) If the Government desires to obtain copyright in computer software first produced in the performance of this contract and permission has not been granted as set forth in paragraph (d)(3)(i) of this clause, the Contracting Officer may direct the contractor to assert, or authorize the assertion of, claim to copyright in such data and to assign, or obtain the assignment of, such copyright to the Government or its designated assignee.
 - (iii) Whenever the word "establish" is used in this clause, with reference to a claim to copyright, it shall be construed to mean "assert".
- (e) Unauthorized marking of data.
 - (1) Notwithstanding any other provisions of this contract concerning inspection or

acceptance, if any data delivered under this contract are marked with the notices specified in paragraph (g)(3) or (g)(4) of this clause and use of the notices is not authorized by this clause, or if such data bears any other restrictive or limiting markings not authorized by this contract, the Contracting Officer may at any time either return the data to the Contractor, or cancel or ignore the markings. However, pursuant to 41 U.S.C. 253d, the following procedures shall apply prior to canceling or ignoring the markings.

- (i) The Contracting Officer will make written inquiry to the Contractor affording the Contractor 60 days from receipt of the inquiry to provide written justification to substantiate the propriety of the markings;
 - (ii) If the Contractor fails to respond or fails to provide written justification to substantiate the propriety of the markings within the 60-day period (or a longer time approved in writing by the Contracting Officer for good cause shown), the Government shall have the right to cancel or ignore the markings at any time after said period and the data will no longer be made subject to any disclosure prohibitions.
 - (iii) If the Contractor provides written justification to substantiate the propriety of the markings within the period set in subdivision (e)(1)(i) of this clause, the Contracting Officer will consider such written justification and determine whether or not the markings are to be canceled or ignored. If the Contracting Officer determines that the markings are authorized, the Contractor will be so notified in writing. If the Contracting Officer determines, with concurrence of the head of the contracting activity, that the markings are not authorized, the Contracting Officer will furnish the Contractor a written determination, which determination shall become the final agency decision regarding the appropriateness of the markings unless the Contractor files suit in a court of competent jurisdiction within 90 days of receipt of the Contracting Officer's decision. The Government shall continue to abide by the markings under this paragraph (e)(1)(iii) until final resolution of the matter either by the Contracting Officer's determination becoming final (in which instance the Government will thereafter have the right to cancel or ignore the markings at any time and the data will no longer be made subject to any disclosure prohibitions), or by final disposition of the matter by court decision if suit is filed.
- (2) The time limits in the procedures set forth in subparagraph (e)(1) of this clause may be modified in accordance with agency regulations implementing the Freedom of Information Act (5 U.S.C. 552) if necessary to respond to a request thereunder.
- (3) Except to the extent the Government's action occurs as the result of final disposition of the matter by a court of competent jurisdiction, the Contractor is not precluded by paragraph (e) of this clause from bringing a claim, in accordance with the Disputes clause of this contract, that may arise as a result of the Government removing or ignoring authorized markings on data delivered under this contract.

(f) Omitted or incorrect markings.

- (1) Data delivered to the Government without any restrictive markings shall be deemed to have been furnished with unlimited rights. The Government is not liable

for the disclosure, use, or reproduction of such data.

(2) If the unmarked data has not been disclosed without restriction outside the Government, the Contractor may request, within 6 months (or a longer time approved by the Contracting Officer in writing for good cause shown) after delivery of such data, permission to have authorized notices placed on qualifying data at the Contractor's expense, and the Contracting Officer may agree to do so if the Contractor—

- (i) Identifies the data to which the omitted notice is to be applied;
- (ii) Demonstrates that the omission of the notice was inadvertent;
- (iii) Establishes that the use of the proposed notice is authorized; and
- (iv) Acknowledges that the Government has no liability for the disclosure, use, or reproduction of any data made prior to the addition of the notice or resulting from the omission of the notice.

(3) If data has been marked with an incorrect notice, the Contracting Officer may—

- (i) Permit correction of the notice at the Contractor's expense if the Contractor identifies the data and demonstrates that the correct notice is authorized, or
- (ii) Correct any incorrect notices.

(g) Protection of limited rights data and restricted computer software.

(1) The Contractor may withhold from delivery qualifying limited rights data or restricted computer software that are not data identified in paragraphs (b)(1)(i), (ii), and (iii) of this clause. As a condition to this withholding, the Contractor shall—

- (i) Identify the data being withheld; and
- (ii) Furnish form, fit, and function data instead.

(2) Limited rights data that are formatted as a computer database for delivery to the Government shall be treated as limited rights data and not restricted computer software.

(3) Notwithstanding paragraph (g)(1) of this clause, the contract may identify and specify the delivery of limited rights data, or the Contracting Officer may require by written request the delivery of limited rights data that has been withheld or would otherwise be entitled to be withheld. If delivery of that data is required, the Contractor shall affix the following "Limited Rights Notice" to the data and the Government will treat the data, subject to the provisions of paragraphs (e) and (f) of this clause, in accordance with the notice:

Limited Rights Notice (Dec 2007)

(a) These data are submitted with limited rights under Government Contract No. _____ (and subcontract _____, if appropriate). These data may be reproduced and used by the Government with the express limitation that they will not, without written permission of the Contractor, be used for purposes of manufacture nor disclosed outside the Government; except that the Government may disclose these data outside the Government for the following purposes, if any; provided that the Government makes such disclosure subject to prohibition against further use and disclosure:

- (i) Use (except for manufacture) by support service contractors.
- (ii) Evaluation by nongovernment evaluators.
- (iii) Use (except for manufacture) by other contractors participating in the Government's program of which the specific contract is a part.
- (iv) Emergency repair or overhaul work.
- (v) Release to a foreign government, or its instrumentalities, if required to serve the interests of the U.S. Government, for information or evaluation, or for emergency repair or overhaul work by the foreign government.

(b) This notice shall be marked on any reproduction of these data, in whole or in part.

(End of Notice)

(4)(i) Notwithstanding paragraph (g)(1) of this clause, the contract may identify and specify the delivery of restricted computer software, or the Contracting Officer may require by written request the delivery of restricted computer software that has been withheld or would otherwise be entitled to be withheld. If delivery of that computer software is required, the Contractor shall affix the following "Restricted Rights Notice" to the computer software and the Government will treat the computer software, subject to paragraphs (e) and (f) of this clause, in accordance with the notice:

Restricted Rights Notice (Dec 2007)

(a) This computer software is submitted with restricted rights under Government Contract No. _____ (and subcontract _____, if appropriate). It may not be used, reproduced, or disclosed by the Government except as provided in paragraph (b) of this notice or as otherwise expressly stated in the contract.

(b) This computer software may be—

- (1) Used or copied for use with the computer(s) for which it was acquired, including use at any Government installation to which the computer(s) may be transferred;
- (2) Used or copied for use with a backup computer if any computer for which it was acquired is inoperative;
- (3) Reproduced for safekeeping (archives) or backup purposes;
- (4) Modified, adapted, or combined with other computer software, *provided that* the modified, adapted, or combined portions of the derivative software incorporating any of the delivered, restricted computer software shall be subject to the same restricted rights;
- (5) Disclosed to and reproduced for use by support service Contractors or their subcontractors in accordance with paragraphs (b)(1) through (4) of this notice; and
- (6) Used or copied for use with a replacement computer.

(c) Notwithstanding the foregoing, if this computer software is copyrighted computer software, it is licensed to the Government with the minimum rights set forth in paragraph (b) of this notice.

(d) Any other rights or limitations regarding the use, duplication, or disclosure of this computer software are to be expressly stated in, or incorporated in, the contract.

(e) This notice shall be marked on any reproduction of this computer software, in whole or in part.

(End of Notice)

(h) Subcontracting. The Contractor shall obtain from its subcontractors all data and rights therein necessary to fulfill the Contractor's obligations to the Government under this contract. If a subcontractor refuses to accept terms affording the Government such rights, the Contractor shall promptly notify the Contracting Officer of the refusal and shall not proceed with the subcontract award without authorization in writing from the Contracting Officer.

(i) Relationship to patents or other rights. Nothing contained in this clause shall imply a license to the Government under any patent or be construed as affecting the scope of any license or other right otherwise granted to the Government.

(End of Clause)

I.12 CHANGES—COST-REIMBURSEMENT (FAR 52.243-2) (AUG 1987) (ALT II) (APR 1984)

(a) The Contracting Officer may at any time, by written order, and without notice to the sureties, if any, make changes within the general scope of this contract in any one or more of the following:

- (1) Description of services to be performed.
- (2) Time of performance (i.e., hours of the day, days of the week, etc.).
- (3) Place of performance of the services.
- (4) Drawings, designs, or specifications when the supplies to be furnished are to be specially manufactured for the Government in accordance with the drawings, designs, or specifications.
- (5) Method of shipment or packing of supplies.
- (6) Place of delivery.

(b) If any such change causes an increase or decrease in the estimated cost of, or the time required for, performance of any part of the work under this contract, whether or not changed by the order, or otherwise affects any other terms and conditions of this contract, the Contracting Officer shall make an equitable adjustment in the—

- (1) Estimated cost, delivery or completion schedule, or both;
- (2) Amount of any fixed fee; and

(3) Other affected terms and shall modify the contract accordingly.

(c) The Contractor must assert its right to an adjustment under this clause within 30 days from the date of receipt of the written order. However, if the Contracting Officer decides that the facts justify it, the Contracting Officer may receive and act upon a proposal submitted before final payment of the contract.

(d) Failure to agree to any adjustment shall be a dispute under the Disputes clause. However, nothing in this clause shall excuse the Contractor from proceeding with the contract as changed.

(e) Notwithstanding the terms and conditions of paragraphs (a) and (b) of this clause, the estimated cost of this contract and, if this contract is incrementally funded, the funds allotted for the performance of this contract, shall not be increased or considered to be increased except by specific written modification of the contract indicating the new contract estimated cost and, if this contract is incrementally funded, the new amount allotted to the contract. Until this modification is made, the Contractor shall not be obligated to continue performance or incur costs beyond the point established in the Limitation of Cost or Limitation of Funds clause of this contract.

(End of clause)

I.13 CLAUSES INCORPORATED BY REFERENCE (FAR 52.252-2) (FEB 1998)

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at this/these address(es):

<http://www.arnet.gov/far/>

<http://www.hq.nasa.gov/office/procurement/regs/nfstoc.htm>

(End of clause)

I.14 SECURITY CLASSIFICATION REQUIREMENTS (NFS 1852.204-75) (SEP 1989)

Performance under this contract will involve access to and/or generation of classified information, work in a security area, or both, up to the level of SECRET. See FAR clause 52.204-2 (Security Requirements) in this contract and DD Form 254, Contract Security Classification Specification, Attachment J-14, DD 254 Department of Defense Contract Security Classification Specification.

(End of clause)

I.15 SECURITY REQUIREMENTS FOR UNCLASSIFIED INFORMATION TECHNOLOGY RESOURCES (NFS 1852.204-76) (JAN 2011)

- (a) The Contractor shall protect the confidentiality, integrity, and availability of NASA Electronic Information and IT resources and protect NASA Electronic Information from unauthorized disclosure.
- (b) This clause is applicable to all NASA Contractors and subcontractors that process, manage, access, or store unclassified electronic information, to include Sensitive But Unclassified (SBU) information, for NASA in support of NASA's missions, programs, projects and/or institutional requirements. Applicable requirements, regulations, policies, and guidelines are identified in the Applicable Documents List (ADL) provided as an attachment to the contract. The documents listed in the ADL can be found at: www.nasa.gov/offices/ocio/itsecurity/index.html. For policy information considered sensitive, the documents will be identified as such in the ADL and made available through the Contracting Officer.
- (c) Definitions
 - (1) IT resources means any hardware or software or interconnected system or subsystem of equipment, that is used to process, manage, access, or store electronic information.
 - (2) NASA Electronic Information is any data (as defined in the Rights in Data clause of this contract) or information (including information incidental to contract administration, such as financial, administrative, cost or pricing, or management information) that is processed, managed, accessed or stored on an IT system(s) in the performance of a NASA contract.
 - (3) IT Security Management Plan -- This plan shall describe the processes and procedures that will be followed to ensure appropriate security of IT resources that are developed, processed, or used under this contract.
 - (4) IT Security Plan – this is a FISMA requirement; see the ADL for applicable requirements.

Within 30 days after contract award, the Contractor shall develop and deliver an IT Security Management Plan. The delivery address and approval authority will be included in DRD IT-02.

All Contractor personnel requiring physical or logical access to NASA IT resources must complete NASA's annual IT Security Awareness training. Refer to the IT Training policy located in the IT Security website at <https://itsecurity.nasa.gov/policies/index.html>.

- (d) The Contractor shall afford Government access to the Contractor's and subcontractors' facilities, installations, operations, documentation, databases, and personnel used in performance of the contract. Access shall be provided to the extent required to carry out a program of IT inspection (to include vulnerability testing), investigation and audit to safeguard against threats and hazards to the integrity,

availability, and confidentiality of NASA Electronic Information or to the function of IT systems operated on behalf of NASA, and to preserve evidence of computer crime.

- (e) At the completion of the contract, the Contractor shall return all NASA information and IT resources provided to the Contractor during the performance of the contract in accordance with retention documentation available in the ADL. The Contractor shall provide a listing of all NASA Electronic information and IT resources generated in performance of the contract. At that time, the Contractor shall request disposition instructions from the Contracting Officer. The Contracting Officer will provide disposition instructions within 30 calendar days of the Contractor's request.
- (f) The Contracting Officer may waive specific requirements of this clause upon request of the Contractor. The Contractor shall provide all relevant information requested by the Contracting Officer to support the waiver request.

The Contractor shall insert this clause, including this paragraph in all subcontracts that process, manage, access or store NASA Electronic Information in support of the mission of the Agency.

(End of clause)

I.16 OMBUDSMAN (NFS 1852.215-84) (NOV 2011) (ALTERNATE I) (NOV 2011)

- (a) An ombudsman has been appointed to hear and facilitate the resolution of concerns from Offerors, potential Offerors, and contractors during the pre-award and post-award phases of this acquisition. When requested, the ombudsman will maintain strict confidentiality as to the source of the concern. The existence of the ombudsman is not to diminish the authority of the contracting officer, the Source Evaluation Board, or the selection official. Further, the ombudsman does not participate in the evaluation of proposals, the source selection process, or the adjudication of formal contract disputes. Therefore, before consulting with an ombudsman, interested parties must first address their concerns, issues, disagreements, and/or recommendations to the contracting officer for resolution.
- (b) If resolution cannot be made by the contracting officer, interested parties may contact the installation ombudsman, whose name, address, telephone number, facsimile number, and e-mail address may be found at:
http://prod.nais.nasa.gov/pub/pub_library/Omb.html. Concerns, issues, disagreements, and recommendations which cannot be resolved at the installation may be referred to the Agency ombudsman identified at the above URL. Please do not contact the ombudsman to request copies of the solicitation, verify offer due date, or clarify technical requirements. Such inquiries shall be directed to the Contracting Officer or as specified elsewhere in this document.

(End of clause)

I.17 NASA 8 PERCENT GOAL (NFS 1852.219-76) (JUL 1997)**(a) Definitions.**

"Historically Black Colleges or University," as used in this clause, means an institution determined by the Secretary of Education to meet the requirements of 34 CFR Section 608.2. The term also includes any nonprofit research institution that was an integral part of such a college or university before November 14, 1986.

"Minority institutions," as used in this clause, means an institution of higher education meeting the requirements of section 1046(3) of the Higher Education Act of 1965 (20 U.S.C. 1135d-5(3)) which for the purposes of this clause includes a Hispanic-serving institution of higher education as defined in section 316(b)(1) of the Act (20 U.S.C. 1059c(b)(1)).

"Small disadvantaged business concern," as used in this clause, means a small business concern that (1) is at least 51 percent unconditionally owned by one or more individuals who are both socially and economically disadvantaged, or a publicly owned business having at least 51 percent of its stock unconditionally owned by one or more socially and economically disadvantaged individuals, and (2) has its management and daily business controlled by one or more such individuals. This term also means a small business concern that is at least 51 percent unconditionally owned by an economically disadvantaged Indian tribe or Native Hawaiian Organization, or a publicly owned business having at least 51 percent of its stock unconditionally owned by one or more of these entities, which has its management and daily business controlled by members of an economically disadvantaged Indian tribe or Native Hawaiian Organization, and which meets the requirements of 13 CFR 124.

"Women-owned small business concern," as used in this clause, means a small business concern (1) which is at least 51 percent owned by one or more women or, in the case of any publicly owned business, at least 51 percent of the stock of which is owned by one or more women, and (2) whose management and daily business operations are controlled by one or more women.

- (b) The NASA Administrator is required by statute to establish annually a goal to make available to small disadvantaged business concerns, Historically Black Colleges and Universities, minority institutions, and women-owned small business concerns, at least 8 percent of NASA's procurement dollars under prime contracts or subcontracts awarded in support of authorized programs, including the space station by the time operational status is obtained.
- (c) The Contractor hereby agrees to assist NASA in achieving this goal by using its best efforts to award subcontracts to such entities to the fullest extent consistent with efficient contract performance.
- (d) Contractors acting in good faith may rely on written representations by their

subcontractors regarding their status as small disadvantaged business concerns, Historically Black Colleges and Universities, minority institutions, and women-owned small business concerns.

(End of clause)

I.18 RESTRICTION ON FUNDING ACTIVITY WITH CHINA (PIC 12-01A)

(a) Definition - “China” or “Chinese-owned company” means the People’s Republic of China, any company owned by the People’s Republic of China or any company incorporated under the laws of the People’s Republic of China.

(b) Public Laws 112-10, Section 1340(a) and 112-55, Section 539, restrict NASA from contracting to participate, collaborate, coordinate bilaterally in any way with China or a Chinese-owned company using funds appropriated on or after April 25, 2011. Contracts for commercial and non developmental items are exempted from the prohibition because they constitute purchase of goods or services that would not involve participation, collaboration, or coordination between the parties.

(c) This contract may use restricted funding that was appropriated on or after April 25, 2011. The contractor shall not contract with China or Chinese-owned companies for any effort related to this contract except for acquisition of commercial and non-developmental items. If the contractor anticipates making an award to China or Chinese-owned companies, the contractor must contact the contracting officer to determine if funding on this contract can be used for that purpose.

(d) Subcontracts - The contractor shall include the substance of this clause in all subcontracts made hereunder.

(End of clause)

I.19 ACCESS TO SENSITIVE INFORMATION (NFS 1852.237-72)(JUN 2005)

(a) As used in this clause, “sensitive information” refers to information that a Contractor has developed at private expense, or that the Government has generated that qualifies for an exception to the Freedom of Information Act, which is not currently in the public domain, and which may embody trade secrets or commercial or financial information, and which may be sensitive or privileged.

(b) To assist NASA in accomplishing management activities and administrative functions, the Contractor shall provide the services specified elsewhere in this contract.

(c) If performing this contract entails access to sensitive information, as defined above,

the Contractor agrees to--

- (1) Utilize any sensitive information coming into its possession only for the purposes of performing the services specified in this contract, and not to improve its own competitive position in another procurement.
 - (2) Safeguard sensitive information coming into its possession from unauthorized use and disclosure.
 - (3) Allow access to sensitive information only to those employees that need it to perform services under this contract.
 - (4) Preclude access and disclosure of sensitive information to persons and entities outside of the Contractor's organization.
 - (5) Train employees who may require access to sensitive information about their obligations to utilize it only to perform the services specified in this contract and to safeguard it from unauthorized use and disclosure.
 - (6) Obtain a written affirmation from each employee that he/she has received and will comply with training on the authorized uses and mandatory protections of sensitive information needed in performing this contract.
 - (7) Administer a monitoring process to ensure that employees comply with all reasonable security procedures, report any breaches to the Contracting Officer, and implement any necessary corrective actions.
- (d) The Contractor will comply with all procedures and obligations specified in its Organizational Conflicts of Interest Mitigation Plan (DRD MGMT-12), which this contract incorporates as a compliance document.
- (e) The nature of the work on this contract may subject the Contractor and its employees to a variety of laws and regulations relating to ethics, conflicts of interest, corruption, and other criminal or civil matters relating to the award and administration of Government contracts. Recognizing that this contract establishes a high standard of accountability and trust, the Government will carefully review the Contractor's performance in relation to the mandates and restrictions found in these laws and regulations. Unauthorized uses or disclosures of sensitive information may result in termination of this contract for default, or in debarment of the Contractor for serious misconduct affecting present responsibility as a Government Contractor.
- (f) The Contractor shall include the substance of this clause, including this paragraph (f), suitably modified to reflect the relationship of the parties, in all subcontracts that may involve access to sensitive information

(End of clause)

I.20 RELEASE OF SENSITIVE INFORMATION (NFS 1852.237-73) (JUN 2005)

- (a) As used in this clause, "Sensitive information" refers to information, not currently in the public domain, that the Contractor has developed at private expense, that may embody trade secrets or commercial or financial information, and that may be sensitive or privileged.
- (b) In accomplishing management activities and administrative functions, NASA relies heavily on the support of various service providers. To support NASA activities and functions, these service providers, as well as their subcontractors and their individual employees, may need access to sensitive information submitted by the Contractor under this contract. By submitting this proposal or performing this contract, the Contractor agrees that NASA may release to its service providers, their subcontractors, and their individual employees, sensitive information submitted during the course of this procurement, subject to the enumerated protections mandated by the clause at NFS 1852.237-72, Access to Sensitive Information.
- (c) (1) The Contractor shall identify any sensitive information submitted in support of this proposal or in performing this contract. For purposes of identifying sensitive information, the Contractor may, in addition to any other notice or legend otherwise required, use a notice similar to the following:

Mark the title page with the following legend:

“This proposal or document includes sensitive information that NASA shall not disclose outside the Agency and its service providers that support management activities and administrative functions. To gain access to this sensitive information, a service provider's contract must contain the clause at NFS 1852.237-72, Access to Sensitive Information. Consistent with this clause, the service provider shall not duplicate, use, or disclose the information in whole or in part for any purpose other than to perform the services specified in its contract. This restriction does not limit the Government's right to use this information if it is obtained from another source without restriction. The information subject to this restriction is contained in pages [insert page number(s)].”

Mark each page of sensitive information the Contractor wishes to restrict with the following legend:

“Use or disclosure of sensitive information contained on this page is subject to the restriction on the title page of this proposal or document.”

- (2) The Contracting Officer shall evaluate the facts supporting any claim that particular information is "sensitive." This evaluation shall consider the time and resources necessary to protect the information in accordance with the detailed

safeguards mandated by the clause at NFS 1852.237-72, Access to Sensitive Information. However, unless the Contracting Officer decides, with the advice of Center counsel, that reasonable grounds exist to challenge the Contractor's claim that particular information is sensitive, NASA and its service providers and their employees shall comply with all of the safeguards contained in paragraph (d) of this clause.

- (d) To receive access to sensitive information needed to assist NASA in accomplishing management activities and administrative functions, the service provider must be operating under a contract that contains the clause at NFS 1852.237-72, Access to Sensitive Information. This clause obligates the service provider to do the following:
- (1) Comply with all specified procedures and obligations, including the Organizational Conflicts of Interest Mitigation Plan (DRD MGMT-12), which the contract has incorporated as a compliance document.
 - (2) Utilize any sensitive information coming into its possession only for the purpose of performing the services specified in its contract.
 - (3) Safeguard sensitive information coming into its possession from unauthorized use and disclosure.
 - (4) Allow access to sensitive information only to those employees that need it to perform services under its contract.
 - (5) Preclude access and disclosure of sensitive information to persons and entities outside of the service provider's organization.
 - (6) Train employees who may require access to sensitive information about their obligations to utilize it only to perform the services specified in its contract and to safeguard it from unauthorized use and disclosure.
 - (7) Obtain a written affirmation from each employee that he/she has received and will comply with training on the authorized uses and mandatory protections of sensitive information needed in performing this contract.
 - (8) Administer a monitoring process to ensure that employees comply with all reasonable security procedures, report any breaches to the Contracting Officer, and implement any necessary corrective actions.
- (e) When the service provider will have primary responsibility for operating an information technology system for NASA that contains sensitive information, the service provider's contract shall include the clause at NFS 1852.204-76, Security Requirements for Unclassified Information Technology Resources. The Security Requirements clause requires the service provider to implement an Information Technology Security Plan to protect information processed, stored, or transmitted from

unauthorized access, alteration, disclosure, or use. Service provider personnel requiring privileged access or limited privileged access to these information technology systems are subject to screening using the standard National Agency Check (NAC) forms appropriate to the level of risk for adverse impact to NASA missions. The Contracting Officer may allow the service provider to conduct its own screening, provided the service provider employs substantially equivalent screening procedures.

- (f) This clause does not affect NASA's responsibilities under the Freedom of Information Act.
- (g) The Contractor shall insert this clause, including this paragraph (g); suitably modified to reflect the relationship of the parties, in all subcontracts that may require the furnishing of sensitive information.

(End of clause)

I.21 RIGHTS TO PROPOSAL DATA (TECHNICAL) (FAR 52.227-23) (Jun 1987)

Except for data contained on pages N/A, it is agreed that as a condition of award of this contract, and notwithstanding the conditions of any notice appearing thereon, the Government shall have unlimited rights (as defined in the "Rights in Data—General" clause contained in this contract) in and to the technical data contained in the proposal dated June 20, 2012, upon which this contract is based.

(End of clause)

I.22 PATENT RIGHTS—OWNERSHIP BY THE CONTRACTOR (FAR 52.227-11) (Dec 2007) (NFS 1852.227-11) ~~-(APPLIES TO SMALL ENTITY SUBCONTRACTORS)~~

(a) As used in this clause—

“Invention” means any invention or discovery that is or may be patentable or otherwise protectable under title 35 of the U.S. Code, or any variety of plant that is or may be protectable under the Plant Variety Protection Act (7 U.S.C. 2321, *et seq.*)

“Made” means—

- (1) When used in relation to any invention other than a plant variety, the conception or first actual reduction to practice of the invention; or
- (2) When used in relation to a plant variety, that the Contractor has at least tentatively determined that the variety has been reproduced with recognized characteristics.

“Nonprofit organization” means a university or other institution of higher education or an organization of the type described in section 501(c)(3) of the Internal Revenue Code of 1954 (26 U.S.C. 501(c)) and exempt from taxation under section 501(a) of the Internal Revenue Code (26 U.S.C. 501(a)), or any nonprofit scientific or educational organization qualified under a State nonprofit organization statute.

“Practical application” means to manufacture, in the case of a composition of product; to practice, in the case of a process or method; or to operate, in the case of a machine or system; and, in each case, under such conditions as to establish that the invention is being utilized and that its benefits are, to the extent permitted by law or Government regulations, available to the public on reasonable terms.

“Subject invention” means any invention of the Contractor made in the performance of work under this contract.

(b) *Contractor’s rights.*

(1) *Ownership.* The Contractor may retain ownership of each subject invention throughout the world in accordance with the provisions of this clause.

(2) *License.*

(i) The Contractor shall retain a nonexclusive royalty-free license throughout the world in each subject invention to which the Government obtains title, unless the Contractor fails to disclose the invention within the times specified in paragraph (c) of this clause. The Contractor’s license extends to any domestic subsidiaries and affiliates within the corporate structure of which the Contractor is a part, and includes the right to grant sublicenses to the extent the Contractor was legally obligated to do so at contract award. The license is transferable only with the written approval of the agency, except when transferred to the successor of that part of the Contractor’s business to which the invention pertains.

(ii) The Contractor’s license may be revoked or modified by the agency to the extent necessary to achieve expeditious practical application of the subject invention in a particular country in accordance with the procedures in FAR 27.302(i)(2) and 27.304-1(f).

(c) *Contractor’s obligations.*

(1) The Contractor shall disclose in writing each subject invention to the Contracting Officer within 2 months after the inventor discloses it in writing to Contractor personnel responsible for patent matters. The disclosure shall identify the inventor(s) and this contract under which the subject invention was made. It shall be sufficiently complete in technical detail to convey a clear understanding of the subject invention. The disclosure shall also identify any publication, on sale (*i.e.*, sale or offer for sale), or public use of the subject invention, or whether a manuscript describing the subject invention has been submitted for publication and, if so, whether it has been accepted for publication. In addition, after disclosure to the agency, the Contractor shall promptly notify the Contracting Officer of the acceptance of any manuscript describing the subject invention for publication and any on sale or public use.

(2) The Contractor shall elect in writing whether or not to retain ownership of any subject invention by notifying the Contracting Officer within 2 years of disclosure to the agency. However, in any case where publication, on sale, or public use has initiated the 1-year statutory period during which valid patent protection can be obtained in the United States, the period for election of title may be shortened by the agency to a date that is no more than 60 days prior to the end of the statutory period.

(3) The Contractor shall file either a provisional or a nonprovisional patent application or a Plant Variety Protection Application on an elected subject invention within 1 year after election. However, in any case where a publication, on sale, or public use has

initiated the 1-year statutory period during which valid patent protection can be obtained in the United States, the Contractor shall file the application prior to the end of that statutory period. If the Contractor files a provisional application, it shall file a non-provisional application within 10 months of the filing of the provisional application. The Contractor shall file patent applications in additional countries or international patent offices within either 10 months of the first filed patent application (whether provisional or non-provisional) or 6 months from the date permission is granted by the Commissioner of Patents to file foreign patent applications where such filing has been prohibited by a Secrecy Order.

- (4) The Contractor may request extensions of time for disclosure, election, or filing under paragraphs (c)(1), (c)(2), and (c)(3) of this clause.
- (5) The Contractor may use whatever format is convenient to disclose subject inventions required in subparagraph (c)(1). NASA prefers that the contractor use either the electronic or paper version of NASA Form 1679, Disclosure of Invention and New Technology (Including Software) to disclose subject inventions. Both the electronic and paper versions of NASA Form 1679 may be accessed at the electronic New Technology Reporting Web site <http://ntr.ndc.nasa.gov/>.
- (6) In addition to the above, the Contractor shall provide the New Technology Representative identified in this contract at 1852.227-72 the following:
 - (i) An interim new technology summary report every 12 months (or such longer period as the Contracting Officer may specify) from the date of the contract, listing all subject inventions required to be disclosed during the period or certifying that there were none.
 - (ii) A final new technology summary report, within 3 months after completion of the contracted work, listing all subject inventions or certifying that there were none.
 - (iii) Upon request, the filing date, serial number and title, a copy of the patent application, and patent number and issue date for any subject invention in any country in which the contractor has applied for patents.
 - (iv) An irrevocable power to inspect and make copies of the patent application file, by the Government, when a Federal Government employee is a coinventor.

(d) *Government's rights—*

- (1) *Ownership.* The Contractor shall assign to the agency, on written request, title to any subject invention—
 - (i) If the Contractor fails to disclose or elect ownership to the subject invention within the times specified in paragraph (c) of this clause, or elects not to retain ownership; provided, that the agency may request title only within 60 days after learning of the Contractor's failure to disclose or elect within the specified times.
 - (ii) In those countries in which the Contractor fails to file patent applications within the times specified in paragraph (c) of this clause; provided, however, that if the Contractor has filed a patent application in a country after the times specified in paragraph (c) of this clause, but prior to its receipt of the written request of the agency, the Contractor shall continue to retain ownership in that country.
 - (iii) In any country in which the Contractor decides not to continue the prosecution of any application for, to pay the maintenance fees on, or defend in reexamination or opposition proceeding on, a patent on a subject invention.

- (2) *License.* If the Contractor retains ownership of any subject invention, the Government shall have a nonexclusive, nontransferable, irrevocable, paid-up license to practice, or have practiced for or on its behalf, the subject invention throughout the world.
- (e) *Contractor action to protect the Government's interest.*
- (1) The Contractor shall execute or have executed and promptly deliver to the agency all instruments necessary to—
 - (i) Establish or confirm the rights the Government has throughout the world in those subject inventions in which the Contractor elects to retain ownership; and
 - (ii) Assign title to the agency when requested under paragraph (d) of this clause and to enable the Government to obtain patent protection and plant variety protection for that subject invention in any country.
 - (iii) The Contractor shall, through employee agreements or other suitable Contractor policy, require that its employees “will assign and do hereby assign” to the Contractor all right, title, and interest in any invention resulting or that may result from their performance of work under this Contract.
 - (2) The Contractor shall require, by written agreement, its employees, other than clerical and nontechnical employees, to disclose promptly in writing to personnel identified as responsible for the administration of patent matters and in the Contractor's format, each subject invention in order that the Contractor can comply with the disclosure provisions of paragraph (c) of this clause, and to execute all papers necessary to file patent applications on subject inventions and to establish the Government's rights in the subject inventions. The disclosure format should require, as a minimum, the information required by paragraph (c)(1) of this clause. The Contractor shall instruct such employees, through employee agreements or other suitable educational programs, as to the importance of reporting inventions in sufficient time to permit the filing of patent applications prior to U.S. or foreign statutory bars.
 - (3) The Contractor shall notify the Contracting Officer of any decisions not to file a non-provisional patent application, continue the prosecution of a patent application, pay maintenance fees, or defend in a reexamination or opposition proceeding on a patent, in any country, not less than 30 days before the expiration of the response or filing period required by the relevant patent office.
 - (4) The Contractor shall include, within the specification of any United States non-provisional patent or plant variety protection application and any patent or plant variety protection certificate issuing thereon covering a subject invention, the following statement, “This invention was made with Government support under (identify the contract) awarded by (identify the agency). The Government has certain rights in the invention.”
- (f) *Reporting on utilization of subject inventions.* The Contractor shall submit, on request, periodic reports no more frequently than annually on the utilization of a subject invention or on efforts at obtaining utilization of the subject invention that are being made by the Contractor or its licensees or assignees. The reports shall include information regarding the status of development, date of first commercial sale or use, gross royalties received by the Contractor, and other data and information as the agency may reasonably specify. The Contractor also shall provide additional reports as may be requested by the agency in connection with any march-in proceeding

undertaken by the agency in accordance with paragraph (h) of this clause. The Contractor also shall mark any utilization report as confidential/proprietary to help prevent inadvertent release outside the Government. As required by 35 U.S.C. 202(c)(5), the agency will not disclose that information to persons outside the Government without the Contractor's permission.

- (g) *Preference for United States industry.* Notwithstanding any other provision of this clause, neither the Contractor nor any assignee shall grant to any person the exclusive right to use or sell any subject invention in the United States unless the person agrees that any products embodying the subject invention or produced through the use of the subject invention will be manufactured substantially in the United States. However, in individual cases, the requirement for an agreement may be waived by the agency upon a showing by the Contractor or its assignee that reasonable but unsuccessful efforts have been made to grant licenses on similar terms to potential licensees that would be likely to manufacture substantially in the United States, or that under the circumstances domestic manufacture is not commercially feasible.
- (h) *March-in rights.* The Contractor acknowledges that, with respect to any subject invention in which it has retained ownership, the agency has the right to require licensing pursuant to 35 U.S.C. 203 and 210(c), and in accordance with the procedures in 37 CFR 401.6 and any supplemental regulations of the agency in effect on the date of contract award.
- (i) Special provisions for contracts with nonprofit organizations. If the Contractor is a nonprofit organization, it shall—
 - (1) Not assign rights to a subject invention in the United States without the written approval of the agency, except where an assignment is made to an organization that has as one of its primary functions the management of inventions, *provided*, that the assignee shall be subject to the same provisions as the Contractor;
 - (2) Share royalties collected on a subject invention with the inventor, including Federal employee co-inventors (but through their agency if the agency deems it appropriate) when the subject invention is assigned in accordance with 35 U.S.C. 202(e) and 37 CFR 401.10;
 - (3) Use the balance of any royalties or income earned by the Contractor with respect to subject inventions, after payment of expenses (including payments to inventors) incidental to the administration of subject inventions for the support of scientific research or education; and
 - (4) Make efforts that are reasonable under the circumstances to attract licensees of subject inventions that are small business concerns, and give a preference to a small business concern when licensing a subject invention if the Contractor determines that the small business concern has a plan or proposal for marketing the invention which, if executed, is equally as likely to bring the invention to practical application as any plans or proposals from applicants that are not small business concerns; *provided*, that the Contractor is also satisfied that the small business concern has the capability and resources to carry out its plan or proposal. The decision whether to give a preference in any specific case will be at the discretion of the Contractor.
 - (5) Allow the Secretary of Commerce to review the Contractor's licensing program and

decisions regarding small business applicants, and negotiate changes to its licensing policies, procedures, or practices with the Secretary of Commerce when the Secretary's review discloses that the Contractor could take reasonable steps to more effectively implement the requirements of paragraph (i)(4) of this clause.

- (j) For the purposes of this clause, communications between the Contractor and the Government shall be as specified in the NASA FAR Supplement at 1852.227-72, Designation of New Technology Representative and Patent Representative.
- (k) *Subcontracts.*
 - (1) The Contractor shall include the substance of this clause, including this paragraph (k), in all subcontracts for experimental, developmental, or research work to be performed by a small business concern or nonprofit organization.
 - (2) The Contractor shall include the clause in the NASA FAR Supplement at 1852.227-70, New Technology, suitably modified to identify the parties, in all subcontracts, regardless of tier, for experimental, developmental, research, design, or engineering work to be performed by other than a small business firm or nonprofit organization. At all tiers, the New Technology clause must be modified to identify the parties as follows: references to the Government are not changed, and in all references to the Contractor the subcontractor is substituted for the Contractor so that the subcontractor has all rights and obligations of the Contractor in the clause.
 - (3) At all tiers, the patent rights clause must be modified to identify the parties as follows: references to the Government are not changed, and the subcontractor has all rights and obligations of the Contractor in the clause. The Contractor shall not, as part of the consideration for awarding the subcontract, obtain rights in the subcontractor's subject inventions.
 - (4) In subcontracts, at any tier, the agency, the subcontractor, and the Contractor agree that the mutual obligations of the parties created by this clause constitute a contract between the subcontractor and the agency with respect to the matters covered by the clause; provided, however, that nothing in this paragraph is intended to confer any jurisdiction under the Contract Disputes Act in connection with proceedings under paragraph (h) of this clause.

(End of clause)

I.23 PROVIDING ACCELERATED PAYMENTS TO SMALL BUSINESS SUBCONTRACTORS (FAR 52.232-99) (AUG 2012) (DEVIATION)

This clause implements the temporary policy provided by OMB Policy Memorandum M-12-16, Providing Prompt Payment to Small Business Subcontractors, dated July 11, 2012.

- (a) Upon receipt of accelerated payments from the Government, the contractor is required to make accelerated payments to small business subcontractors to the maximum extent practicable after receipt of a proper invoice and all proper documentation from the small business subcontractor.
- (b) Include the substance of this clause, including this paragraph (b), in all subcontracts with small business concerns.

- (c) The acceleration of payments under this clause does not provide any new rights under the Prompt Payment Act.

I.24 NONDISPLACEMENT OF QUALIFIED WORKERS (FAR 52.222-17) (JAN 2013)

(a) "Service employee", as used in this clause, means any person engaged in the performance of a service contract other than any person employed in a bona fide executive, administrative, or professional capacity, as those terms are defined in 29 CFR part 541. The term "service employee" includes all such persons regardless of any contractual relationship that may be alleged to exist between a contractor or subcontractor and such persons.

(b) The Contractor and its subcontractors shall, except as otherwise provided herein, in good faith offer those service employees employed under the predecessor contract whose employment will be terminated as a result of award of this contract or the expiration of the contract under which the service employees were hired, a right of first refusal of employment under this contract in positions for which the service employees are qualified.

(1) The Contractor and its subcontractors shall determine the number of service employees necessary for efficient performance of this contract and may elect to employ fewer employees than the predecessor Contractor employed in connection with performance of the work.

(2) Except as provided in paragraph (c) of this clause, there shall be no employment opening under this contract, and the Contractor and any subcontractors shall not offer employment under this contract, to any person prior to having complied fully with this obligation.

(i) The successor Contractor and its subcontractors shall make a bona fide express offer of employment to each service employee as provided herein and shall state the time within which the service employee must accept such offer, but in no case shall the period within which the service employee must accept the offer of employment be less than 10 days.

(ii) The successor Contractor and its subcontractors shall decide any question concerning a service employee's qualifications based upon the individual's education and employment history, with particular emphasis on the employee's experience on the predecessor contract, and the Contractor may utilize employment screening processes only when such processes are provided for by the contracting agency, are conditions of the service contract, and are consistent with Executive Order 13495.

(iii) Where the successor Contractor does not initially offer employment to all the predecessor contract service employees, the obligation to offer employment shall continue for 90 days after the successor contractor's first date of performance on the contract.

(iv) An offer of employment will be presumed to be bona fide even if it is not for a position similar to the one the employee previously held, but is one for which the employee is qualified, and even if it is subject to different employment terms and conditions, including changes to pay or benefits. (See 29 CFR 9.12 for a detailed description of a bonafide offer of employment).

(c)(1) Notwithstanding the obligation under paragraph (b) of this clause, the successor

Contractor and any subcontractors (i) may employ under this contract any service employee who has worked for the contractor or subcontractor for at least three months immediately preceding the commencement of this contract and who would otherwise face lay-off or discharge, (ii) are not required to offer a right of first refusal to any service employee(s) of the predecessor contractor who are not service employees within the meaning of the Service Contract Act, 41 U.S.C. 6701(3), and (iii) are not required to offer a right of first refusal to any service employee(s) of the predecessor contractor whom the Contractor or any of its subcontractors reasonably believes, based on the particular service employee's past performance, has failed to perform suitably on the job (see 29 CFR 9.12 (c)(4) for additional information). The successor Contractor bears the responsibility of demonstrating the appropriateness of claiming any of these exceptions.

(2) In addition, any Contractor or subcontractor that has been certified by the U.S. Small Business Administration as a HUBZone small business concern must ensure that it complies with the statutory and regulatory requirements of the HUBZone Program (e.g., it must ensure that at least 35 percent of all of its employees reside within a HUBZone). The HUBZone small business Contractor or subcontractor must consider whether it can meet the requirements of this clause and Executive Order 13495 while also ensuring it meets the HUBZone Program's requirements.

(3) Nothing in this clause shall be construed to permit a Contractor or subcontractor to fail to comply with any provision of any other Executive order or law. For example, the requirements of the HUBZone Program (see FAR subpart 19.13), Executive Order 11246 (Equal Employment Opportunity), and the Vietnam Era Veterans' Readjustment Assistance Act of 1974 may conflict, in certain circumstances, with the requirements of Executive Order 13495. All applicable laws and Executive orders must be satisfied in tandem with, and if necessary prior to, the requirements of Executive Order 13495, 29 CFR part 9, and this clause.

(d)(1) The Contractor shall, not less than 30 days before completion of the Contractor's performance of services on the contract, furnish the Contracting Officer with a certified list of the names of all service employees working under this contract and its subcontracts at the time the list is submitted. The list shall also contain anniversary dates of employment of each service employee under this contract and its predecessor contracts with either the current or predecessor contractors or their subcontractors. Where changes to the workforce are made after the submission of the certified list described in this paragraph, the Contractor shall, in accordance with paragraph (e) of this clause, not less than 10 days before completion of the services on this contract, furnish the Contracting Officer with an updated certified list of the names of all service employees employed within the last month of contract performance. The updated list shall also contain anniversary dates of employment, and, where applicable, dates of separation of each service employee under the contract and its predecessor contracts with either the current or predecessor Contractors or their subcontractors.

(2) Immediately upon receipt of the certified service employee list but not before contract award, the contracting officer shall provide the certified service employee list to the successor contractor, and, if requested, to employees of the predecessor contractor or subcontractors or their authorized representatives.

(3) The Contracting Officer will direct the predecessor Contractor to provide written notice (Appendix B to 29 CFR chapter 9) to service employees of their possible right to

an offer of employment with the successor contractor. Where a significant portion of the predecessor Contractor's workforce is not fluent in English, the notice shall be provided in English and the language(s) with which service employees are more familiar. The written notice shall be—

(i) Posted in a conspicuous place at the worksite; or

(ii) Delivered to the service employees individually. If such delivery is via e-mail, the notification must result in an electronic delivery receipt or some other reliable confirmation that the intended recipient received the notice.

(e)(1) If required in accordance with 52.222-41(n), the predecessor Contractor shall, not less than 10 days before completion of this contract, furnish the Contracting Officer a certified list of the names of all service employees working under this contract and its subcontracts during the last month of contract performance. The list shall also contain anniversary dates of employment of each service employee under this contract and its predecessor contracts either with the current or predecessor Contractors or their subcontractors. If there are no changes to the workforce before the predecessor contract is completed, then the predecessor Contractor is not required to submit a revised list 10 days prior to completion of performance and the requirements of 52.222-41(n) are met. When there are changes to the workforce after submission of the 30-day list, the predecessor Contractor shall submit a revised certified list not less than 10 days prior to performance completion.

(2) Immediately upon receipt of the certified service employee list but not before contract award, the contracting officer shall provide the certified service employee list to the successor contractor, and, if requested, to employees of the predecessor contractor or subcontractors or their authorized representatives.

(f) The Contractor and subcontractor shall maintain the following records (regardless of format, e.g., paper or electronic) of its compliance with this clause for not less than a period of three years from the date the records were created.

(1) Copies of any written offers of employment or a contemporaneous written record of any oral offers of employment, including the date, location, and attendance roster of any service employee meeting(s) at which the offers were extended, a summary of each meeting, a copy of any written notice that may have been distributed, and the names of the service employees from the predecessor contract to whom an offer was made.

(2) A copy of any record that forms the basis for any exemption claimed under this part.

(3) A copy of the service employee list provided to or received from the contracting agency.

(4) An entry on the pay records of the amount of any retroactive payment of wages or compensation under the supervision of the Administrator of the Wage and Hour Division to each service employee, the period covered by such payment, and the date of payment, and a copy of any receipt form provided by or authorized by the Wage and Hour Division. The Contractor shall also deliver a copy of the receipt to the service employee and file the original, as evidence of payment by the Contractor and receipt by the service employee, with the Administrator or an authorized representative within 10 days after payment is made.

(g) Disputes concerning the requirements of this clause shall not be subject to the general disputes clause (52.223-1) of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR part 9. Disputes

within the meaning of this clause include disputes between or among any of the following: The Contractor, the contracting agency, the U.S. Department of Labor, and the service employees under the contract or its predecessor contract. The Contracting Officer will refer any service employee who wishes to file a complaint, or ask questions concerning this contract clause, to the: Branch of Government Contracts Enforcement, Wage and Hour Division, U.S. Department of Labor, 200 Constitution Avenue NW, Washington, DC 20210. Contact e-mail: displaced@dol.gov.

(h) The Contractor shall cooperate in any review or investigation by the Department of Labor into possible violations of the provisions of this clause and shall make such records requested by such official(s) available for inspection, copying, or transcription upon request.

(i) If it is determined, pursuant to regulations issued by the Secretary of Labor (Secretary), that the Contractor or its subcontractors are not in compliance with the requirements of this clause or any regulation or order of the Secretary, appropriate sanctions may be imposed and remedies invoked against the Contractor or its subcontractors, as provided in Executive Order 13495, the regulations, and relevant orders of the Secretary, or as otherwise provided by law.

(j) The Contractor shall take such action with respect to any such subcontract as may be directed by the Secretary of Labor as a means of enforcing such provisions, including the imposition of sanctions for noncompliance. However, if the Contractor, as a result of such direction, becomes involved in litigation with a subcontractor, or is threatened with such involvement, the Contractor may request that the United States, through the Secretary, enter into such litigation to protect the interests of the United States.

(k) The Contracting Officer will withhold, or cause to be withheld, from the prime Contractor under this or any other Government contract with the same prime Contractor, such sums as an authorized official of the Department of Labor requests, upon a determination by the Administrator, the Administrative Law Judge, or the Administrative Review Board, that there has been a failure to comply with the terms of this clause and that wages lost as a result of the violations are due to service employees or that other monetary relief is appropriate. If the Contracting Officer or the Administrator, upon final order of the Secretary, finds that the Contractor has failed to provide a list of the names of service employees working under the contract, the Contracting Officer may, in his or her discretion, or upon request by the Administrator, take such action as may be necessary to cause the suspension of the payment of contract funds until such time as the list is provided to the Contracting Officer.

(l) *Subcontracts.* In every subcontract over the simplified acquisition threshold entered into in order to perform services under this contract, the Contractor shall include a provision that ensures—

(1) That each subcontractor will honor the requirements of paragraphs (b) through (c) of this clause with respect to the service employees of a predecessor subcontractor or subcontractors working under this contract, as well as of a predecessor Contractor and its subcontractors;

(2) That the subcontractor will provide the Contractor with the information about the service employees of the subcontractor needed by the Contractor to comply with paragraphs (d) and (e) of this clause; and

(3) The recordkeeping requirements of paragraph (f) of this clause.

(End of clause)

(End of clause)

[END OF SECTION]

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE		PAGE OF PAGES 1 5	
2. AMENDMENT/MODIFICATION NO. 000002		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO.	
6. ISSUED BY NASA/Johnson Space Center Attn: Miyoshi Thompson-BH2 2101 NASA Parkway Houston TX 77058-3696		CODE JSC		5. PROJECT NO. (If applicable)	
		7. ADMINISTERED BY (If other than Item 6) NASA/Johnson Space Center Attn:Chris Gaspard/BH2 281.483.0034 cgaspard@nasa.gov 2101 NASA Parkway Houston TX 77058-3696		CODE JSC	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) JACOBS 600 WILLIAM NORTHERN BLVD TULLAHOMA TN 37388-4729		(x)		9A. AMENDMENT OF SOLICITATION NO.	
				9B. DATED (SEE ITEM 11)	
		x		10A. MODIFICATION OF CONTRACT/ORDER NO. NNJ13HA01C	
CODE 07486		FACILITY CODE		10B. DATED (SEE ITEM 13) 02/08/2013	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
X	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: Mutual Agreement of Both Parties
	D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor ☐ is not, ☒ is required to sign this document and return 2 copies to the issuing office.

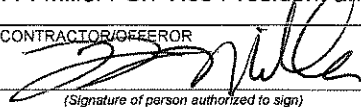

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

The purpose of this modification is to modify Section H.16, External Customer Effort, Section H.17, Associate Contractor Agreements(ACA) for JETS Activities, and Section I.1, FAR 52.245-1 (Remove Alternate I), of the contract. Change pages are attached.

Payment Terms:

Net 30 days

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print) Lon F. Miller / Sr. Vice President and General Manager		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Miyoshi J. Thompson	
15B. CONTRACTOR/OFFEROR  (Signature of person authorized to sign)	15C. DATE SIGNED 3/18/13	16B. UNITED STATES OF AMERICA  (Signature of Contracting Officer)	16C. DATE SIGNED 3/25/13

The clauses below are revised as follows:

H.16 EXTERNAL CUSTOMER EFFORT

The Government may allow nonexclusive, non-government use of Engineering and ARES Directorate facilities, Attachment J-25, by the contractor under this contract. If found appropriate by the Government through the Contracting Officer, the contractor and Government shall enter into a Reimbursable Space Act Agreement (RSAA) which will outline the benefit the Government will derive from the contractor's non-government use of designated property through rental receipts along with the terms and conditions related to the use of this equipment.

The contractor's use of such property for such purposes shall be subject to the terms and conditions of this contract.

The Government recognizes the benefit it derives from the contractor's non-government use of designated property through rental receipts as defined under the RSAA and that this benefit through the contractor's ability to provide non-government use services to its customers is dependent upon the reliability of the contractor's access to the designated property.

The contractor shall deliver (b) (4) in cost off-set over the life of the JETS contract. The contractor's External Customer Plan (DRD MGMT-10) provides additional details on this commitment.

The property authorized for non-Government use along with the terms and conditions for the use of this designated equipment will be set forth in the RSAA. Any dispute associated with this clause and/or the contractor's exercise of its authority for non-governmental use of the designated property shall be subject to the "Disputes" clause of this contract.

The Government reserves the right to enter into other reimbursable agreements within NASA or with other entities. Such agreements (e.g., Internal Task Agreements, Space Act Agreements) may require contractor support. In the case that contractor support is required in the execution of these other agreements; the contractor shall support these efforts via task orders issued by the Contracting Officer. As a matter of protocol and courtesy, the Government will provide notice before entering into other reimbursable agreements that would interfere with performance of a RSAA between the contractor and the Government or any other contractor work. The Government's intent is to avoid interfering with the execution of contractor agreements.

(End of clause)

H. 17 ASSOCIATE CONTRACTOR AGREEMENTS (ACA) FOR JETS ACTIVITIES

(a) The success of the JETS Contract is dependent on the efforts of multiple Contractors. At a minimum, the Contractor shall develop, maintain and adhere to ACAs with the

following contracts and their successors:

- i. The contractors that provide IT support services at JSC (end user services, desktop management, data center services, communication services, applications services, web based services, and media services)

ACES – Agency Consolidated End-User Services Contract

EPIC – Engineering Products Integration Contract

- ii. The contractor that provides facility services and maintenance at JSC

FSS – Facility Support Services

- iii. The contractor that provides quality and safety support services to the S&MA Directorate at JSC

SMASSC – Safety and Mission Assurance Support Services Contract

CISS – Center Institutional Safety Support Contract

- iv. The other contractors that provides support to the JSC Engineering Directorate.

EFS – Engineering Fabrication Services Contract

CRAVE II – Crew, Robotics, Avionics and Vehicle Equipment

CAMS II – Calibration and Metrology Services II

SEETS – Specialized Engineering, Evaluation and Test Services

- v. Contracts supporting other directorates, programs and offices at JSC which may interface with JETS

FBMS – Financial and Business Management Services Contract

BC – Bioastronautics Contract

International Space Station (ISS) Vehicle Sustaining Engineering Contract

CEV – Orion Crew Exploration Vehicle Contract

The Contractor shall develop, maintain and adhere to ACA's with any other interfaces the Contractor deems necessary to avoid negatively impacting the JETS contract work.

The Contractor shall make all ACAs available to the JETS Contracting Officer (CO) and Contracting Officer's Technical Representative (COTR).

- (b) The Contractor shall document agreements with other associate Contractors described in (a) above via Associate Contractor Agreements. The Government will not be a party in such Associate Contractor Agreements. All costs associated with such agreements are included in the negotiated price of this contract. Any additional ACA required shall be developed, modified and kept current at no additional cost to the Government. In order to achieve efficient and effective implementation of JETS

operations; the Contractor shall establish the means for coordination and exchange of information with associate Contractors. The information to be exchanged shall be that required by the Contractors in the execution of their respective contract requirements. The Contractors are strongly encouraged to seek out and foster cooperative efforts that will benefit JETS with increased safety, efficiency, and productivity.

- (c) The Contractor is not relieved of any contract requirements or entitled to any adjustments to the contract terms because of the failure to resolve a disagreement with an associate Contractor. Liability for the improper disclosure of any proprietary data contained in or referenced by any agreement shall rest with the parties to the agreement, and not the Government.
- (d) A copy of the ACA shall be provided to the Contracting Officer within 30 days after agreement is reached.

(End of clause)

Additionally, Section I.1, page I-7 is replaced with the following:

52.242-1	AUG 1984	NOTICE OF INTENT TO DISALLOW COSTS
52.242-3	MAY 2001	PENALTIES FOR UNALLOWABLE COSTS
52.242-13	JUL 1995	BANKRUPTCY
52.243-6	APR 1984	CHANGE ORDER ACCOUNTING
52.243-7	APR 1984	NOTIFICATION OF CHANGES
52.244-2	OCT 2010	SUBCONTRACTS
52.244-5	DEC 1996	COMPETITION IN SUBCONTRACTING
52.244-6	DEC 2010	SUBCONTRACTS FOR COMMERCIAL ITEMS
52.245-1	APR 2012	GOVERNMENT PROPERTY (APR 2012)
52.245-9	APR 2012	USE & CHARGES
52.246-24	FEB 1997	LIMITATION OF LIABILITY – HIGH VALUE ITEMS
52.246-25	FEB 1997	LIMITATION OF LIABILITY – SERVICES
52.247-63	JUN 2003	PREFERENCE FOR U.S. FLAG AIR CARRIERS
52.247-64	FEB 2006	PREFERENCE FOR PRIVATELY OWNED U.S. FLAG COMMERCIAL VESSELS
52.247-68	FEB 2006	REPORT OF SHIPMENT (RESHIP)
52.248-1	OCT 2010	VALUE ENGINEERING
52.249-6	MAY 2004	TERMINATION (COST-REIMBURSEMENT)
52.249-14	APR 1984	EXCUSABLE DELAYS
52.251-1	APR 2012	GOVERNMENT SUPPLY SOURCES
52.253-1	JAN 1991	COMPUTER GENERATED FORMS

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE		PAGE OF PAGES 1 2	
2. AMENDMENT/MODIFICATION NO. 000003		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO. See Schedule	
5. PROJECT NO. (If applicable)		6. ISSUED BY NASA/Johnson Space Center Attn: Lawrence Miller/BH2 2101 NASA Parkway Houston TX 77058-3696		7. ADMINISTERED BY (If other than Item 6) NASA/Johnson Space Center Attn: Lawrence Miller/BH2 281.483.3916 lawrence.l.miller@nasa.gov 2101 NASA Parkway Houston TX 77058-3696	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) JACOBS 600 WILLIAM NORTHERN BLVD TULLAHOMA TN 37388-4729		9A. AMENDMENT OF SOLICITATION NO. (x)		9B. DATED (SEE ITEM 11)	
CODE 07486 FACILITY CODE		10A. MODIFICATION OF CONTRACT/ORDER NO. NNJ13HA01C		10B. DATED (SEE ITEM 13) 02/08/2013	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)
See Schedule Net Increase: \$6,670,385.35

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) FAR 52.232-22 Limitation of Funds Clause (APR 1984)

E. IMPORTANT: Contractor ☒ is not. ☐ is required to sign this document and return _____ 0 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

The purpose of this modification is to 1) Increase the current contract funding from \$20,000,000.00 to \$26,670,385.35, and increase of \$6,670,385.35, and 2) Recapitulate funding.

The contract change pages are attached.

Payment Terms:

Net 30 days

FOB: Destination

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Miyoshi J. Thompson	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA (Signature of Contracting Officer)	16C. DATE SIGNED 5-9-2013

B.5 CONTRACT FUNDING (NFS 1852.232-81) (JUN 1990)

- (a) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds clause, the total amount allotted by the Government to this contract is
- (b) (b) (4) This allotment is for JSC Engineering, Technology and Science (JETS) efforts at NASA/JSC and covers the contract minimum.
- (b) An additional amount of (b) (4) is obligated under this contract for payment of fee.

(End of clause)

	Prior Funding Thru	Current Action	Total Funding Thru
	Mod 2	Mod 3	Mod 3
Cost	(b) (4)		
Fee			
Total	\$20,000,000.00	\$6,670,385.35	\$26,670,385.35

OBLIGATIONS	
PR	Amount
4200474827	\$2,581,153.20
4200474826	\$4,089,232.15

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE		PAGE OF PAGES 1 2	
2. AMENDMENT/MODIFICATION NO. 000004		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO.	
6. ISSUED BY CODE NASA/Johnson Space Center Attn: Lawrence Miller/BH2 2101 NASA Parkway Houston TX 77058-3696		JSC		5. PROJECT NO. (If applicable)	
		7. ADMINISTERED BY (If other than Item 6) NASA/Johnson Space Center Attn: Lawrence Miller/BH2 281.483.3916 lawrence.l.miller@nasa.gov 2101 NASA Parkway Houston TX 77058-3696		CODE JSC	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) JACOBS 600 WILLIAM NORTHERN BLVD TULLAHOMA TN 37388-4729		(x)		9A. AMENDMENT OF SOLICITATION NO.	
				9B. DATED (SEE ITEM 11)	
		x		10A. MODIFICATION OF CONTRACT/ORDER NO. NNJ13HA01C	
				10B. DATED (SEE ITEM 13) 02/08/2013	
CODE 07486		FACILITY CODE			

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required) Net Decrease: -\$1,914,038.48
See Schedule

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) FAR 52.232-22 Limitation of Funds Clause (APR 1984)

E. IMPORTANT: Contractor ☒ is not, ☐ is required to sign this document and return _____ 0 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

The purpose of this modification is to 1) decrease the current contract funding from \$26,670,385.35 to \$24,756,346.87, and decrease of \$1,914,038.48, and 2) Recapitulate funding.

The contract change pages are attached.

Payment Terms:

Net 30 days

FOB: Destination

Except as provided herein, all terms and conditions of the document referenced in item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)	
		Miyoshi J. Thompson	
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA	16C. DATE SIGNED
(Signature of person authorized to sign)		(Signature of Contracting Officer)	5-13-13

B.5 CONTRACT FUNDING (NFS 1852.232-81) (JUN 1990)

- (a) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds clause, the total amount allotted by the Government to this contract is
- (b) (b) (4) This allotment is for JSC Engineering, Technology and Science (JETS) efforts at NASA/JSC and covers the contract minimum.
- (b) An additional amount of (b) (4) is obligated under this contract for payment of fee.

(End of clause)

	Prior Funding Thru	Current Action	Total Funding Thru
	Mod 3	Mod 4	Mod 4
Cost	(b) (4)		
Fee			
Total	\$26,670,385.35	\$(1,914,038.48)	\$24,756,346.87

DE OBLIGATIONS				
PR #	PLI	ALI	WBS Element	Amount
4200463007	2	24	432938.11.01.05.01.02	\$ 135,000.00
4200463007	2	42	401769.06.03.06.02.09	\$ 4,200.00
4200463007	2	58	401769.06.03.02.02.01	\$ 109,437.84
4200463007	2	60	401769.06.03.03.02.01	\$ 17,520.00
4200463007	2	62	401769.06.03.03.02.19	\$ 12,057.00
4200463007	2	63	401769.06.05.01.02.03	\$ 51,970.34
4200463007	2	64	401769.06.03.02.02.16	\$ 80,637.69
4200463007	2	65	401769.06.03.02.02.01	\$ 19,757.16
4200463007	2	66	401769.06.03.02.02.02	\$ 31,528.96
4200463007	2	68	401769.06.03.02.02.05	\$ 34,683.40
4200463007	2	69	401769.06.03.02.02.06	\$ 199,937.00
4200463007	2	70	401769.06.03.02.02.07	\$ 75,820.28
4200463007	2	72	401769.06.03.02.02.26	\$ 10,628.49
4200463007	2	73	401769.06.03.02.02.01	\$ 15,860.32
4200463007	2	21	432938.11.01.05.05	\$ 1,115,000.00
Total				\$(1,914,038.48)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE		PAGE OF PAGES 1 4	
2. AMENDMENT/MODIFICATION NO. 000005		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO.	
6. ISSUED BY NASA/Johnson Space Center Attn: Lawrence Miller/BH2 2101 NASA Parkway Houston TX 77058-3696		CODE JSC		5. PROJECT NO. (if applicable)	
		7. ADMINISTERED BY (if other than item 6) NASA/Johnson Space Center Attn: Lawrence Miller/BH2 281.483.3916 lawrence.1.miller@nasa.gov 2101 NASA Parkway Houston TX 77058-3696		CODE JSC	
8. NAME AND ADDRESS OF CONTRACTOR (fno., street, county, State and ZIP Code) JACOBS 600 WILLIAM NORTHERN BLVD TULLAHOMA TN 37388-4729		(x)		9A. AMENDMENT OF SOLICITATION NO.	
				9B. DATED (SEE ITEM 11)	
		x		10A. MODIFICATION OF CONTRACT/ORDER NO. NNJ13HAQ1C	
				10B. DATED (SEE ITEM 13) 02/08/2013	
CODE 07486		FACILITY CODE			

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in item 14. The hour and date specified for receipt of Offers ☐ is extended, ☐ is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing items 8 and 16, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (if required)

See Schedule

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
	D. OTHER (Specify type of modification and authority)
X	Mutual Agreement of Both Parties

E. IMPORTANT: Contractor ☐ is not. ☒ is required to sign this document and return _____ 2 _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

The purpose of this modification is to modify 1) Section J-2, DRL: BP- 07 (Reports Required for Logistics) and MGMT-06 (Wage/Salary and Fringe Benefit Data), 2) Section E.3, Higher-Level Quality Requirement.


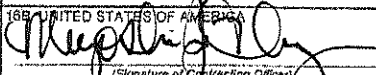
The contract change pages are attached.

The contract change pages are attached.

Payment Terms:

Net 30 days

Except as provided herein, all terms and conditions of the document referenced in item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print) Lon F. Miller / Sr. Vice President and General Manager		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Miyoshi J. Thompson	
16B. CONTRACTOR/OFFEROR 	16C. DATE SIGNED 5/17/13	16D. UNITED STATES OF AMERICA 	16E. DATE SIGNED 5-20-13

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STANDARD FORM 30 (REV. 10-83)
Prescribed by GSA
FAR (48 CFR) 53.243

1. Line item no. MGMT-04	2. DRD Title Staffing and Critical Skills Plan	3. Frequency RT	4. As-of-date --	5. 1 st subm. date Due with Proposal	6. Copies a. Type E b. Number 1
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval	<input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request				
8. Distribution 1) Electronic copy delivered to the DDMS. 2) Hard copy submitted to CO.	9. Remarks - Annual review required. Block 3: First update 30 days after contract start date. Subsequent revisions as required.				
1. Line item no. MGMT-05	2. DRD Title Contract Phase-In Plan	3. Frequency OT	4. As-of-date --	5. 1 st subm. date Due with Proposal	6. Copies a. Type E HC b. Number 1 2
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval	<input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request				
8. Distribution 1) Electronic copy delivered to the DDMS. 2) Hard copy submitted to CO. 3) Hard copy submitted to BB/Contractor Industrial Relations Office.	9. Remarks				
1. Line item no. MGMT-06	2. DRD Title Wage/Salary and Fringe Benefit Data	3. Frequency AN	4. As-of-date --	5. 1 st subm. date 90 days after contract award	6. Copies a. Type E HC b. Number 1 2
7. Data type: <input type="checkbox"/> (1) Written Approval	<input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request				
8. Distribution 1) Electronic copy delivered to the DDMS. 2) Hard copy submitted to CO. 3) Hard copy submitted to BB/Contractor Industrial Relations Office.	9. Remarks - Three hardcopies and one electronic copy of each Collective Bargaining Agreement are required if organized labor is represented. - Changes shall be incorporated as required by change page or complete reissue. - Copies of all CBA must be provided within 30 days of ratification or modification to the Contracting Officer, and Contractor Industrial Relations Officer. Block 3: Subsequent submittals shall be annually, 90 days prior to the anniversary of the contract.				

1. Line item no. BP-05	2. DRD Title RESERVED	3. Frequency	4. As-of-date	5. 1 st subm. date	6. Copies a. Type b. Number	
7. Data type: <input type="checkbox"/> (1) Written Approval	<input type="checkbox"/> (2) Mandatory Submittal	9. Remarks				
8. Distribution						
1. Line item no. BP-06	2. DRD Title Patent Rights Retention	3. Frequency See Block 9	4. As-of-date	5. 1 st subm. date Contract start + 12 months	6. Copies a. Type b. Number E 1 HC 1	
7. Data type: <input type="checkbox"/> (1) Written Approval	<input checked="" type="checkbox"/> (2) Mandatory Submittal	9. Remarks				
8. Distribution 1) Electronic copy delivered to the DDMS. 2) Hard copy submitted to CO.						
1. Line item no. BP-07	2. DRD Title Reports Required for Logistics	3. Frequency See Block 9	4. As-of-date --	5. 1 st subm. date See Block 9	6. Copies a. Type b. Number E 1 HC 2	
7. Data type: <input type="checkbox"/> (1) Written Approval	<input checked="" type="checkbox"/> (2) Mandatory Submittal	9. Remarks				
8. Distribution 1) Electronic copy delivered to the DDMS. 2) Hard copy submitted to CO. 3) Hard copy submitted to the Supply and Equipment Management Office (SEMO).						
1. Line item no. BP-08	2. DRD Title RESERVED	3. Frequency	4. As-of-date --	5. 1 st subm. date	6. Copies a. Type b. Number	
7. Data type: <input type="checkbox"/> (1) Written Approval	<input type="checkbox"/> (2) Mandatory Submittal	9. Remarks				
8. Distribution						
1. Reports of Personnel Property Management Operations: 3/25 and 9/25.* 2. Analysis of Fixed Inventory Assets: 3/25 and 9/25.* 3. Physical Inventory of Materials Annual Report: 9/25. 4. Quarterly Report of contractor-acquired material: 15 days after the end of fiscal quarters.** 5. Annual report of Exchange/Sale: 15 days after the end of the Government Fiscal Year. * Initial reports shall be delivered by 9/25/2013 and semiannually (every six months) thereafter. ** The delivery of the first quarterly report shall be due on or before 7/15/2013.						

E.3 HIGHER-LEVEL QUALITY REQUIREMENT (FAR 52.246-11) (FEB 1999)

The Contractor shall comply with the higher-level quality standards selected below.

<u>Title</u>	<u>Number/ Date</u>	<u>Tailoring</u>
Quality Management Systems –Requirements for Aviation, Space and Defense Organizations	SAE Certified AS9100C (Off-Site)/2009	Specific tailoring is contained in JSC Work Instructions. Independent certification/registration is not required.

(End of Clause)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE		PAGE OF PAGES 1 2	
2. AMENDMENT/MODIFICATION NO. 000006		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO.	
5. PROJECT NO. (If applicable)		6. ISSUED BY NASA/Johnson Space Center Attn: Lawrence Miller/BH2 2101 NASA Parkway Houston TX 77058-3696		7. ADMINISTERED BY (If other than Item 6) NASA/Johnson Space Center Attn: Lawrence Miller/BH2 281.483.3916 lawrence.l.miller@nasa.gov 2101 NASA Parkway Houston TX 77058-3696	
8. NAME AND ADDRESS OF CONTRACTOR (Attn, street, county, State and ZIP Code) JACOBS 600 WILLIAM NORTHERN BLVD TULLAHOMA TN 37388-4729		(X) 9A. AMENDMENT OF SOLICITATION NO.		9B. DATED (SEE ITEM 11)	
CODE 07486 FACILITY CODE		X 10A. MODIFICATION OF CONTRACT/ORDER NO. NNJ13HA01C		10B. DATED (SEE ITEM 13) 02/08/2013	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing items 5 and 15, and returning _____ copies of the amendment. (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

See Schedule

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation data, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.102(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
	D. OTHER (Specify type of modification and authority)
X	Mutual Agreement of Both Parties

E. IMPORTANT: Contractor ☐ is not, ☒ is required to sign this document and return _____ 2 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

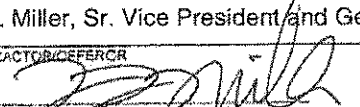
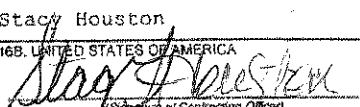
The purpose of this modification is to modify Attachment J-2 BP-06 in the contract.

The contract change pages are attached.

Payment Terms:

Net 30 days

Except as provided herein, all terms and conditions of the document referenced in item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print) Lon F. Miller, Sr. Vice President and General Manager		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Stacy Houston	
15B. CONTRACTOR/REFEROR 	15C. DATE SIGNED 5/28/13	16B. UNITED STATES OF AMERICA 	16C. DATE SIGNED 5/28/13

NSN 7540-01-152-8070
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STANDARD FORM 30 (REV 10-83)
Prescribed by GSA
FAR (48 CFR) 53.243

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC -STD-123. See work page for instructions.)

1. DRD Title Patent Rights Retention	2. Date of current version 12/01/2011	3. DRL Line Item No. BP-06	RFP/Contract No. (Procurement completes) NNJ13HA01C
4. Use (Define need for, intended use of, and/or anticipated results of data) Identification of any subject inventions including: Information on patent applications and related filings.			5. DRD Category: (check one) <input type="checkbox"/> Technical <input checked="" type="checkbox"/> Administrative <input type="checkbox"/> SR&QA
6. References (Optional) NFS Clause 1852.227-11 "Patent Rights-Retention by the Contractor (Short Form)"		7. Interrelationships (e.g., with other DRDs) (Optional)	

8. Preparation Information (Include complete instructions for document preparation)

A. SCOPE:

Inventions by the Contractor as part of their performance on this Government Contract.

B. CONTENT:

1. A listing in accordance to I.22 (Patent Rights-Ownership By The Contractor) of all subject inventions required to be disclosed during the period.
2. A final report prior to close-out, of the contract listing of all subject inventions or certifying that there were none.
3. Upon request, the filing date, serial number, and title, a copy of the patent application, patent number, and issue date for any subject invention, in any country in, which the contractor has applied for patents.

C. FORMAT:

The electronic or paper version of NASA form 1679, Disclosure of Invention and New Technology (Including Software) submitted to DDMS to disclose subject Invention.

D. MAINTENANCE:

E. DISTRIBUTION:

Distribution shall be in accordance with the DRL.

F. APPLICABLE DOCUMENTS:

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE		PAGE OF PAGES 1 2	
2. AMENDMENT/MODIFICATION NO. 000007		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO. See Schedule	
5. PROJECT NO. (If applicable)		6. ISSUED BY CODE JSC		7. ADMINISTERED BY (If other than Item 6) CODE JSC	
NASA/Johnson Space Center Attn: Lawrence Miller/BH2 2101 NASA Parkway Houston TX 77058-3696		NASA/Johnson Space Center Attn: Lawrence Miller/BH2 281.483.3916 lawrence.l.miller@nasa.gov 2101 NASA Parkway Houston TX 77058-3696			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) JACOBS 600 WILLIAM NORTHERN BLVD TULLAHOMA TN 37388-4729		9A. AMENDMENT OF SOLICITATION NO. 9B. DATED (SEE ITEM 11) X 10A. MODIFICATION OF CONTRACT/ORDER NO. NNJ13HA01C 10B. DATED (SEE ITEM 13) 02/08/2013			
CODE 07486		FACILITY CODE			
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS					
<input type="checkbox"/> The above numbered solicitation is amended as set forth in item 14. The hour and date specified for receipt of Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.					
12. ACCOUNTING AND APPROPRIATION DATA (If required)		Net Increase: \$20,347,158.14 13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.			
CHECK ONE		A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A. B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b). C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: D. OTHER (Specify type of modification and authority) X FAR 52.232-22, Limitation of Funds			
E. IMPORTANT: Contractor <input checked="" type="checkbox"/> is not. <input type="checkbox"/> is required to sign this document and return 0 copies to the issuing office.					
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.) The purpose of this modification is to: 1) Add funding in the amount of \$20,347,158.14 to increase the contract obligation from \$25,106,346.87 to \$45,453,505.01; 2) Update contract clause B.5, Contract Funding (see page 2); and 3) To correct the text in Modification 4 to "The purpose of this modification is to 1) decrease the current contract funding from \$27,020,385.35 to \$25,106,348.87, a decrease of \$1,914,038.48, and 2) Recapitulate funding." Payment Terms: Net 30 days FOB: Destination					
Except as provided herein, all terms and conditions of the document referenced in item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.					
15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
		Miyoshi J. Thompson			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA	
(Signature of person authorized to sign)				(Signature of Contracting Officer) 6-13-13	
NSN 7540-01-152-8070 Previous edition unusable					
STANDARD FORM 30 (REV. 10-83) Prescribed by GSA FAR (48 CFR) 63.243					

B.5 CONTRACT FUNDING (NFS 1852.232-81) (JUN 1990)

(a) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds clause, the total amount allotted by the Government to this contract is

(b) (4) This allotment is for JSC Engineering, Technology and Science (JETS) efforts at NASA/JSC and covers the following estimated period of performance: May 1, 2013 through **August 18, 2013**.

(b) An additional amount of (b) (4) is obligated under this contract for payment of fee.

(End of clause)

Funding recapitulation (included for administrative purposes only):

	Prior Funding Thru Mod 6	Current Action Mod 7	Total Funding Thru Mod 7
Cost	(b) (4)	(b) (4)	(b) (4)
Fee			
FFP			
Total	\$25,106,346.87	\$20,347,158.14	\$45,453,505.01

PR	Amount
4200478580	\$10,662,674.81
4200478581	\$5,352,030.17
4200478613	\$4,332,453.16
Total	\$20,347,158.14

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE		PAGE OF PAGES 1 3	
2. AMENDMENT/MODIFICATION NO. 000008		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ NO.	
6. ISSUED BY NASA/Johnson Space Center Attn: Lawrence Miller/BH2 2101 NASA Parkway Houston TX 77058-3696		CODE JSC		5. PROJECT NO. (if applicable)	
7. ADMINISTERED BY (if other than item 6) NASA/Johnson Space Center Attn: Lawrence Miller/BH2 281.483.3916 lawrence.l.miller@nasa.gov 2101 NASA Parkway Houston TX 77058-3696		CODE JSC			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) JACOBS 600 WILLIAM NORTHERN BLVD TULLAHOMA TN 37388-4729		(x) 9A. AMENDMENT OF SOLICITATION NO.		9B. DATED (SEE ITEM 11)	
		X 10A. MODIFICATION OF CONTRACT/ORDER NO. NNJ13HA01C		10B. DATED (SEE ITEM 12) 02/08/2013	
CODE 07486		FACILITY CODE			

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended, ☐ is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 6 and 10, and returning _____ copies of the amendment. (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (if required)

See Schedule

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) Mutual Agreement of Both Parties

E. IMPORTANT: Contractor ☐ is not, ☒ is required to sign this document and return _____ 2 _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible)

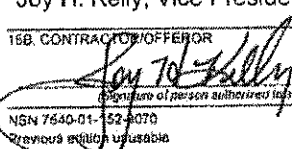
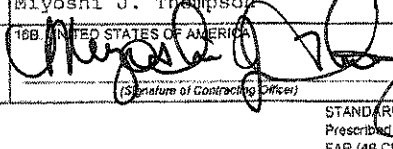
The purpose of this modification is to incorporate H.20 Handling and Protection of Government Controlled Contractor Generated Data Clause in the contract and update section A to include H.20.

The contract change pages are attached.

Payment Terms:

Net 30 days

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print) Joy H. Kelly, Vice President & Deputy General Manager		15A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Miyoshi J. Thompson	
15B. CONTRACTOR/OFFEROR  Signature of person authorized to sign		15C. DATE SIGNED 6/19/13	
15B. UNITED STATES OF AMERICA  Signature of Contracting Officer		15C. DATE SIGNED 6/20/13	

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H.3	Representations, Certifications, and Other Statements of Offeror	H-2
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H.5	Applicability of Rights in Data	H-3
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H.11	Observance of Legal Holidays.....	H-13
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H.21	Receiving Inspection and Test Facility (RITF) Utilization	<u>H-23</u>
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H.23	Mitigation of Organizational Conflicts of Interest.....	<u>H-24</u>
H.24	Disclosure of Organizational Conflicts of Interest after Contract Award	<u>H-25</u>

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I.4	Notification of Ownership Changes.....	I-9
I.5	Ordering	I-10
I.6	Order Limitations.....	I-10
I.7	Indefinite Quantity	I-11
I.8	Notice for Price Evaluation Adjustment for Small Disadvantaged Business Concerns	I-12

The clause below was added to section H of the contract:

H.20 Handling and Protection of Government Controlled Contractor Generated Data

- (a) In the performance of this contract it is anticipated that the Contractor may generate data which the Government intends to control the release, publication, distribution and use thereof.
- (b) For data generated by the Contractor in support of an identified Space Act Agreement, Commercial Space Launch Act Agreement, Commercial Space Competitiveness Act Agreement, or Cooperative Research and Development Agreement, to which the Contractor is not party to such agreements; or for data otherwise identified by the Contracting Officer, the Contractor agrees, for a period of 5 years from the date of development of such data, to:
 - (1) use and disclose such data only to the extent necessary to perform the work required under this contract in support of such agreement, with particular emphasis on restricting disclosure of the data to those persons who have a definite need for the data in order to perform under this contract in support of such agreement;
 - (2) not reproduce the data unless reproduction of the data is required to accomplish work required under this contract in support of such agreement, the reproduction shall carry the same marking as which appears on the original pursuant to the requirements of Paragraph (b)(5) of this clause;
 - (3) refrain from disclosing the data to third parties without the written consent of the Contracting Officer except for subcontractors, contract labor, consultants and agents of the Contractor who have a need to know to accomplish work required under this contract in support of such agreement;
 - (4) return or deliver the data including all copies thereof to the Contracting Officer or his designated recipient when requested by the Contracting Officer; and
 - (5) mark such data with the following or a similar restrictive notice:

SENSITIVE BUT UNCLASSIFIED INFORMATION – SPACE ACT AGREEMENT


The data herein were created on [enter date]; are restricted under the Data Rights Provision of Space Act Agreement (SAA) [provide applicable reference number]; and shall be used and disclosed only to the extent necessary to perform work required to support such SAA. After [enter date X years after creation date], these restrictions are no longer applicable.

- (c) The Contractor shall include the substance of this clause, including paragraph (c), suitably modified to reflect the relationship of the parties, in all subcontracts that may require the subcontractor to generate data in support of such agreements.

[End of Clause]

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE		PAGE OF PAGES 1 2	
2. AMENDMENT/MODIFICATION NO. 000009		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO. See Schedule	
5. PROJECT NO. (If applicable)		6. ISSUED BY CODE JSC		7. ADMINISTERED BY (If other than Item 6) CODE JSC	
NASA/Johnson Space Center Attn: Lawrence Miller/BH2 2101 NASA Parkway Houston TX 77058-3696		NASA/Johnson Space Center Attn: Lawrence Miller/BH2 281.483.3916 lawrence.l.miller@nasa.gov 2101 NASA Parkway Houston TX 77058-3696			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) JACOBS 600 WILLIAM NORTHERN BLVD TULLAHOMA TN 37388-4729		(x) 9A. AMENDMENT OF SOLICITATION NO. 9B. DATED (SEE ITEM 11) x 10A. MODIFICATION OF CONTRACT/ORDER NO. NNJ13HA01C 10B. DATED (SEE ITEM 13) 02/08/2013			
CODE 07486		FACILITY CODE			
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS					
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended. <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.					
12. ACCOUNTING AND APPROPRIATION DATA (If required) See Schedule		Net Increase: \$16,185,878.63			
13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.					
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A. B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b). C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: D. OTHER (Specify type of modification and authority) X FAR 52.232-22, Limitation of Funds				
E. IMPORTANT: Contractor <input checked="" type="checkbox"/> is not. <input type="checkbox"/> is required to sign this document and return _____ copies to the issuing office.					
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.) The purpose of this modification is to 1) Add funding in the amount of \$17,272,868.42 and remove funding in the amount of \$1,086,989.83 to increase the contract obligation from \$45,453,505.01 to 61,289,383.64; and 2) Update contract clause B.5, Contract Funding (see page 2); Payment Terms: Net 30 days FOB: Destination					

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Miyoshi J. Thompson	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA  (Signature of Contracting Officer)	16C. DATE SIGNED 07-09-13

B.5 CONTRACT FUNDING (NFS 1852.232-81) (JUN 1990)

- (a) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds clause, the total amount allotted by the Government to this contract is (b) (4). This allotment is for JSC Engineering, Technology and Science (JETS) efforts at NASA/JSC and covers the following estimated period of performance: May 1, 2013 through **September 27, 2013**.

- (b) An additional amount of (b) (4) is obligated under this contract for payment of fee.

(End of clause)

Funding recapitulation (included for administrative purposes only):

	Prior Funding Thru	Current Action	Total Funding Thru
	Mod 8	Mod 9	Mod 9
Cost	(b) (4)		
Fee			
Total	\$45,103,505.01	\$16,185,878.63	\$61,289,383.64

OBLIGATIONS		DE OBLIGATIONS				
PR	Amount	PR #	PLI	ALI	WBS Element	Amount
4200481686	\$7,063,799.20					
4200481688	\$3,294,993.11					
4200481689	\$6,914,076.15					
		4200463007	2	22	432938.11.01.05.05	\$ 75,000.00
		4200474826	1	13	086916.01.01.02.02.01	\$ 38,691.92
		4200463007	2	55	401769.06.04.01.02.05	\$ 751.00
		4200474827	2	27	432938.09.01.05.05.03.74	\$ 3,200.00
		4200463007	2	23	432938.11.01.05.01.02	\$ 211,714.75
		4200474826	1	26	747797.06.14.03.99.10	\$ 9,850.00
		4200463007	2	35	401769.06.06.01.02.30.01	\$ 44,971.51
		4200478581	2	27	401769.06.06.01.02.29.01	\$ 262,620.29
		4200478581	2	28	401769.06.06.01.02.36	\$ 5,000.00
		4200463007	2	31	401769.06.03.07.05.02	\$ 325,020.25
		4200463007	2	38	401769.06.01.01.25	\$ 83,141.42
		4200478581	2	63	804911.02.05.1609.13	\$ 778.69
		4200478613	3	3	769347.05.08.14.02.04	\$ 26,250.00
Total	\$17,272,868.46	Total				\$(1,086,989.83)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE		PAGE OF PAGES 1 2	
2. AMENDMENT/MODIFICATION NO. 000010		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO. See Schedule	
5. PROJECT NO. (If applicable)		6. ISSUED BY CODE JSC		7. ADMINISTERED BY (If other than Item 6) CODE JSC	
NASA/Johnson Space Center Attn: Lawrence Miller/BH2 2101 NASA Parkway Houston TX 77058-3696		NASA/Johnson Space Center Attn: Lawrence Miller/BH2 281.483.3916 lawrence.l.miller@nasa.gov 2101 NASA Parkway Houston TX 77058-3696			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) JACOBS 600 WILLIAM NORTHERN BLVD TULLAHOMA TN 37388-4729		(x)		9A. AMENDMENT OF SOLICITATION NO.	
				9B. DATED (SEE ITEM 11)	
		X		10A. MODIFICATION OF CONTRACT/ORDER NO. NNJ13HA01C	
				10B. DATED (SEE ITEM 13) 02/08/2013	
CODE 07486		FACILITY CODE			

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended, ☐ is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required) Net Increase: \$7,851,678.45

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) FAR 52.232-22, Limitation of Funds

E. IMPORTANT: Contractor ☒ is not, ☐ is required to sign this document and return _____ 0 _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

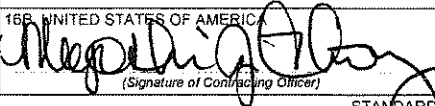
The purpose of this modification is to 1) increase contract funding from \$61,639,383.64 to \$69,491,062.09, an increase of \$7,851,678.45; and 2) update contract clause B.5, Contract Funding (see page 2).

Payment Terms:

Net 30 days

FOB: Destination

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		15A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Miyoshi J. Thompson	
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	15B. UNITED STATES OF AMERICA 	16C. DATE SIGNED 8-5-13
(Signature of person authorized to sign)		(Signature of Contracting Officer)	

B.5 CONTRACT FUNDING (NFS 1852.232-81) (JUN 1990)

(a) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds clause, the total amount allotted by the Government to this contract is (b) (4). This allotment is for JSC Engineering, Technology and Science (JETS) efforts at NASA/JSC and covers the following estimated period of performance: May 1, 2013 through **October 18, 2013**.

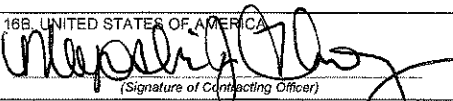
(b) An additional amount of (b) (4) is obligated under this contract for payment of fee.

(End of clause)

Funding recapitulation (included for administrative purposes only):

	Prior Funding Thru	Current Action	Total Funding Thru
	Mod 9	Mod 10	Mod 10
Cost	(b) (4)		
Fee	(b) (4)		
Total	\$61,289,383.64	\$7,851,678.45	\$69,141,062.09

PR	Amount
4200485670	\$1,580,872.48
4200485589	\$2,366,668.68
4200485604	\$3,872,101.99
4200485725	\$32,035.30
Total	\$7,851,678.45

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1. CONTRACT ID CODE		PAGE OF PAGES 1 3	
2. AMENDMENT/MODIFICATION NO. 000011		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
6. ISSUED BY NASA/Johnson Space Center Attn: Lawrence Miller/BH2 2101 NASA Parkway Houston TX 77058-3696		CODE JSC		7. ADMINISTERED BY (If other than Item 6) NASA/Johnson Space Center Attn: Lawrence Miller/BH2 281.483.3916 lawrence.l.miller@nasa.gov 2101 NASA Parkway Houston TX 77058-3696		CODE JSC	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) JACOBS 600 WILLIAM NORTHERN BLVD TULLAHOMA TN 37388-4729				(x) 9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				X 10A. MODIFICATION OF CONTRACT/ORDER NO. NNJ13HA01C			
				10B. DATED (SEE ITEM 13) 02/08/2013			
CODE 07486		FACILITY CODE		11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS			
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Decrease: -\$1,798,809.11			
13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) FAR 52.232-22, Limitation of Funds						
E. IMPORTANT: Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.) The purpose of this modification is to 1) decrease contract funding from \$69,491,062.09 to \$67,692,252.98, a decrease of \$1,798,809.11; and 2) update contract clause B.5, Contract Funding (see page 2). Payment Terms: Net 30 days FOB: Destination							
15A. NAME AND TITLE OF SIGNER (Type or print)				15A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Miyoshi J. Thompson			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA  (Signature of Contracting Officer)		16C. DATE SIGNED 8-7-13	
(Signature of person authorized to sign)							
NSN 7540-01-152-8070 Previous edition unusable				STANDARD FORM 30 (REV. 10-83) Prescribed by GSA FAR (48 CFR) 53.243			

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

B.5 CONTRACT FUNDING (NFS 1852.232-81) (JUN 1990)

- (a) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds clause, the total amount allotted by the Government to this contract is (b) (4). This allotment is for JSC Engineering, Technology and Science (JETS) efforts at NASA/JSC and covers the following estimated period of performance: May 1, 2013 through October 18, 2013.
- (b) An additional amount of (b) (4) is obligated under this contract for payment of fee.

(End of clause)

Funding recapitulation (included for administrative purposes only):

TOTAL			
	Prior Funding Thru Mod 10	Current Action Mod 11	Total Funding Thru Mod 11
Cost	(b) (4)		
Fee			
FFP			
Total	\$69,491,062.09	(\$1,798,809.11)	\$67,692,252.98

DE OBLIGATIONS				
PR #	PLI	ALI	WBS Element	Amount
4200463007	2	10	401769.06.06.01.02.08.01	\$ 36,000.00
4200463007	2	27	401769.06.03.06.02.12	\$ 5,602.96
4200463007	2	45	401769.06.04.02.02.04	\$ 31,451.00
4200463007	2	59	401769.06.03.02.02.02	\$ 26,756.86
4200463007	2	71	401769.06.06.01.02.15	\$ 2,770.00
4200474827	2	22	401769.06.03.03.02.19	\$ 66,759.30
4200474827	2	51	647280.04.01.10	\$ 54,803.31
4200478581	2	34	609524.09.03.02.08.33.01	\$ 32,500.00
4200478581	2	51	869021.05.05.09.21	\$ 2,525.83
4200478581	2	57	401769.06.05.02.02.27	\$ 12,709.16
4200478581	2	66	747797.01.02.99.10	\$ 13,679.18
4200481686	1	16	871056.06.02.01.09.10	\$ 45,000.00
4200481686	1	27	401769.06.03.02.02.01	\$ 39,220.29
4200481686	1	30	401769.06.05.01.02.13	\$ 15,331.95
4200481686	1	34	401769.06.06.01.02.04	\$ 42,119.00
4200481688	2	48	401769.06.03.01.02.16	\$ 40,823.00
4200481688	2	65	401769.06.04.03.02.05.01	\$ 7,674.00
4200481689	3	2	401769.06.03.06.02.02	\$ 5,019.90

Continuation of SF30

NNJ13HA01C

Modification 11

Page 3 of 3

4200481689	3	4	401769.06.03.06.02.14	\$ 1,273.64
4200481689	3	5	401769.06.03.06.02.17	\$ 34,301.42
4200481689	3	7	401769.06.03.09.01.01	\$ 188,000.00
4200481689	3	8	401769.06.05.02.02.03	\$ 468,981.00
4200481689	3	10	401769.06.06.01.02.29.01	\$ 3,290.62
4200481689	3	12	401769.06.08.02.03.02	\$ 137,727.83
4200481689	3	13	432938.11.01.05.03	\$ 21,999.00
4200481689	3	19	647280.04.01.10	\$ 217,489.86
4200481689	3	21	747797.06.51.99.10	\$ 15,000.00
4200478613	3	27	724297.20.27.05	\$ 100,000.00
4200478613	3	5	203959.02.02.19.94	\$ 30,000.00
4200485604	2	41	857464.05.05.04.01	\$ 100,000.00
Total				\$ (1,798,809.11)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE		PAGE OF PAGES 1 41	
2. AMENDMENT/MODIFICATION NO. 000012		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO.	
5. ISSUED BY NASA/Johnson Space Center Attn: Jon Prihoda/BH2 2101 NASA Parkway Houston TX 77058-3696		6. CODE JSC		7. ADMINISTERED BY (If other than Item 6) NASA/Johnson Space Center Attn: Lawrence Miller/BH2 281.483.3916 lawrence.l.miller@nasa.gov 2101 NASA Parkway Houston TX 77058-3696	
8. NAME AND ADDRESS OF CONTRACTOR (Firm, street, county, State and ZIP Code) JACOBS 600 WILLIAM NORTHERN BLVD TULLAHOMA TN 37388-4729		(x) 9A. AMENDMENT OF SOLICITATION NO.		9B. DATED (SEE ITEM 11)	
CODE 07486 FACILITY CODE		(x) 10A. MODIFICATION OF CONTRACT ORDER NO. NNJ13HA01C		10B. DATED (SEE ITEM 13) 02/08/2013	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

1. The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended, ☐ is not extended.
 Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF _____.
X	D. OTHER (Specify type of modification and authority) CHANGES - COST-REIMBURSEMENT (FAR 52.243-2) (ALT II)

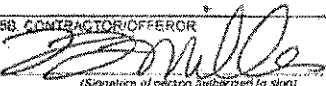
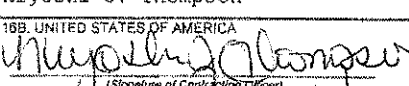
E. IMPORTANT: Contractor ☐ is not, ☒ is required to sign this document and return 1 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible)

The purpose of Modification 12 is to add Clause I.25 1852.225-74 NOTIFICATION PRIOR TO ACQUIRING INFORMATION TECHNOLOGY SYSTEMS FROM ENTITIES OWNED, DIRECTED OR SUBSIDIZED BY THE PEOPLE'S REPUBLIC OF CHINA to the contract. Therefore, Section I of NNJ13HA01C is hereby deleted, and replaced with the attached copy of Section I. The change to the aforementioned section has been denoted by a vertical bar mark along the left side of the document. All other terms and conditions remain unchanged.

Payment Terms:
Net 30 days

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print) Lon F. Miller / Sr. Vice President & General Manager		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Miyoshi J. Thompson	
15B. CONTRACTOR/OFFEROR  (Signature of person authorized to sign)	15C. DATE SIGNED 08/13/2013	16B. UNITED STATES OF AMERICA  (Signature of Contracting Officer)	16C. DATE SIGNED 8-13-13

NSN 7540-01-152-8070
Previous edition unusable

STANDARD FORM 30 (REV. 10-83)
Prescribed by GSA
FAR (48 CFR) 53.243

SECTION I – CONTRACT CLAUSES

I.1 LISTING OF CLAUSES INCORPORATED BY REFERENCE

Clause(s) at the beginning of this Section are incorporated by reference, with the same force and effect as if they were given in full text. Clauses incorporated by reference which require a fill-in by the Government include the text of the affected paragraph(s) only. This does not limit the clause to the affected paragraph(s). The Contractor is responsible for understanding and complying with the entire clause.

I. FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1)

<u>Clause Number</u>	<u>Date</u>	<u>Title</u>
52.202-1	JAN 2012	DEFINITIONS
52.203-3	APR 1984	GRATUITIES
52.203-5	APR 1984	COVENANT AGAINST CONTINGENT FEES
52.203-6	SEP 2006	RESTRICTIONS ON SUBCONTRACTOR SALES TO THE GOVERNMENT
52.203-7	OCT 2010	ANTI-KICKBACK PROCEDURES
52.203-8	JAN 1997	CANCELLATION, RESCISSION, AND RECOVERY OF FUNDS FOR ILLEGAL OR IMPROPER ACTIVITY
52.203-10	JAN 1997	PRICE OR FEE ADJUSTMENT FOR ILLEGAL OR IMPROPER ACTIVITY
52.203-12	OCT 2010	LIMITATION ON PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS
52.203-13	APR 2010	CONTRACTOR CODE OF BUSINESS ETHICS AND CONDUCT
52.204-2	AUG 1996	SECURITY REQUIREMENTS
52.204-4	MAY 2011	PRINTED OR COPIED DOUBLE-SIDED ON RECYCLED PAPER

52.204-7	FEB 2012	CENTRAL CONTRACTOR REGISTRATION
52.204-9	JAN 2011	PERSONAL IDENTITY VERIFICATION OF CONTRACTOR PERSONNEL
52.204-10	FEB 2012	REPORTING EXECUTIVE COMPENSATION AND FIRST-TIER SUBCONTRACT AWARDS
52.209-6	DEC 2010	PROTECTING THE GOVERNMENT'S INTEREST WHEN SUBCONTRACTING WITH CONTRACTORS DEBARRED, SUSPENDED, OR PROPOSED FOR DEBARMENT
52.209-10	MAY 2012	PROHIBITION ON CONTRACTING WITH INVERTED DOMESTIC CORPORATIONS
52.210-1	APR 2011	MARKET RESEARCH
52.211-5	AUG 2000	MATERIAL REQUIREMENTS
52.211-15	APR 2008	DEFENSE PRIORITY AND ALLOCATION REQUIREMENTS
52.215-2	OCT 2010	AUDIT AND RECORDS- NEGOTIATION
52.215-8	OCT 1997	ORDER OF PRECEDENCE – UNIFORM CONTRACT FORMAT
52.215-11	AUG 2011	PRICE REDUCTION FOR DEFECTIVE COST OR PRICING DATA – MODIFICATIONS
52.215-13	OCT 2010	SUBCONTRACTOR COST OR PRICING DATA – MODIFICATIONS
52.215-14	OCT 2010	INTEGRITY OF UNIT PRICES
52.215-15	OCT 2010	PENSION ADJUSTMENTS AND ASSET REVERSIONS
52.215-17	OCT 1997	WAIVER OF FACILITIES CAPITAL COST OF MONEY
52.215-18	JUL 2005	REVERSION OR ADJUSTMENT OF PLANS FOR POSTRETIREMENT BENEFITS (PRB) OTHER THAN PENSIONS

52.215-21	OCT 2010	REQUIREMENTS FOR COST OR PRICING DATA OR INFORMATION OTHER THAN COST OR PRICING DATA – MODIFICATIONS (ALTERNATE III) (OCT 1997) (c) Submit the cost portion of the proposal via the following electronic media: email and/or compact disc (CD)
52.215-22	OCT 2009	LIMITATIONS ON PASS-THROUGH CHARGES – IDENTIFICATION OF SUBCONTRACT EFFORT
52.215-23	OCT 2009	LIMITATIONS ON PASS-THROUGH CHARGES. (ALT.1) (OCT 2009)
52.216-7	JUN 2011	ALLOWABLE COST AND PAYMENT
52.217-8	NOV 1999	OPTION TO EXTEND SERVICES The Contracting Officer may exercise the option by written notice to the Contractor within <u>60 calendar days</u> prior to the Option start date.
52.217-9	MAR 2000	OPTION TO EXTEND THE TERM OF THE CONTRACT (a) The Government may extend the term of this contract by written notice to the Contractor no later than <u>30 calendar days</u> prior to the Option start date, provided that the Government gives the Contractor a preliminary written notice of its intent to extend at least <u>60 calendar days</u> before the contract expires. The preliminary notice does not commit the Government to an extension. (c) The total duration of this contract, including the exercise of any options under this clause, shall not exceed <u>9 years</u> .
52.219-4	JAN 2011	NOTICE OF PRICE EVALUATION PREFERENCE FOR HUB ZONE SMALL BUSINESS CONCERNS
52.219-8	JAN 2011	UTILIZATION OF SMALL BUSINESS CONCERNS
52.219-9	JAN 2011	SMALL BUSINESS SUBCONTRACTING PLAN; (ALTERNATE II) (OCT 2001)
52.219-14	NOV 2011	LIMITATIONS ON SUBCONTRACTING
52.219-16	JAN 1999	LIQUIDATED DAMAGES – SUBCONTRACTING PLAN

52.219-25	DEC 2010	SMALL DISADVANTAGED BUSINESS PARTICIPATION PROGRAM – DISADVANTAGED STATUS AND REPORTING
52.219-28	APR 2012	POST-AWARD SMALL BUSINESS PROGRAM REPRESENTATION
52.222-1	FEB 1997	NOTICE TO THE GOVERNMENT OF LABOR DISPUTES
52.222-2	JUL 1990	PAYMENT FOR OVERTIME PREMIUMS (a) The use of overtime is authorized under this contract if the overtime premium does not exceed zero or the overtime premium is paid work - -
52.222-3	JUN 2003	CONVICT LABOR
52.222-4	JUL 2005	CONTRACT WORK HOURS AND SAFETY STANDARDS ACT - OVERTIME COMPENSATION
52.222-21	FEB 1999	PROHIBITION OF SEGREGATED FACILITIES
52.222-26	MAR 2007	EQUAL OPPORTUNITY
52.222-35	SEP 2010	EQUAL OPPORTUNITY FOR SPECIAL DISABLED VETERANS, VETERANS OF THE VIETNAM ERA, AND OTHER ELIGIBLE VETERANS
52.222-36	OCT 2010	AFFIRMATIVE ACTION FOR WORKERS WITH DISABILITIES
52.222-37	SEP 2010	EMPLOYMENT REPORTS ON SPECIAL DISABLED VETERANS, VETERANS OF THE VIETNAM ERA, AND OTHER ELIGIBLE VETERANS
52.222-40	DEC 2010	NOTIFICATION OF EMPLOYEE RIGHTS UNDER THE NATIONAL LABOR RELATIONS ACT
52.222-41	NOV 2007	SERVICE CONTRACT ACT OF 1965
52.222-50	FEB 2009	COMBATING TRAFFICKING IN PERSONS
52.222-54	JAN 2009	EMPLOYMENT ELIGIBILITY VERIFICATION
52.223-2	JUL 2012	AFFIRMATIVE PROCUREMENT OF BIO-BASED

PRODUCTS UNDER SERVICE AND
CONSTRUCTION CONTRACTS

52.223-3	JAN 1997	HAZARDOUS MATERIAL IDENTIFICATION AND MATERIAL SAFETY DATA; (ALTERNATE I) (JUL 1995) (b) None
52.223-5	MAY 2011	POLLUTION PREVENTION AND RIGHT-TO-KNOW INFORMATION; (ALTERNATE I) (MAY 2011) (ALTERNATE II) (MAY 2011)
52.223-6	MAY 2001	DRUG-FREE WORKPLACE
52.223-10	MAY 2011	WASTE REDUCTION PROGRAM
52.223-12	MAY 1995	REFRIGERATION EQUIPMENT AND AIR CONDITIONERS
52.223-15	DEC 2007	ENERGY EFFICIENCY IN ENERGY-CONSUMING PRODUCTS
52.223-17	MAY 2008	AFFIRMATIVE PROCUREMENT OF EPA-DESIGNATED ITEMS IN SERVICE AND CONSTRUCTION CONTRACTS
52.223-18	AUG 2011	ENCOURAGING CONTRACTOR POLICIES TO BAN TEXT MESSAGING WHILE DRIVING
52.223-19	MAY 2011	COMPLIANCE WITH ENVIRONMENTAL MANAGEMENT SYSTEMS
52.224-1	APR 1984	PRIVACY ACT NOTIFICATION
52.224-2	APR 1984	PRIVACY ACT
52.225-1	FEB 2009	BUY AMERICAN ACT - SUPPLIES
52.225-13	JUN 2008	RESTRICTIONS ON CERTAIN FOREIGN PURCHASES
52.227-1	DEC 2007	AUTHORIZATION AND CONSENT
52.227-2	DEC 2007	NOTICE AND ASSISTANCE REGARDING PATENT AND COPYRIGHT INFRINGEMENT

52.227-16	JUN 1987	ADDITIONAL DATA REQUIREMENTS
52.227-17	DEC 2007	RIGHTS IN DATA--SPECIAL WORKS
52.228-7	MAR 1996	INSURANCE – LIABILITY TO THIRD PERSONS
52.230-2	MAY 2012	COST ACCOUNTING STANDARDS
52.230-6	JUN 2010	ADMINISTRATION OF COST ACCOUNTING STANDARD
52.232-9	APR 1984	LIMITATION ON WITHHOLDING OF PAYMENTS
52.232-17	OCT 2010	INTEREST
52.232-18	APR 1984	AVAILABILITY OF FUNDS
52.232-19	APR 1984	AVAILABILITY OF FUNDS FOR THE NEXT FISCAL YEAR
52.232-22	APR 1984	LIMITATION OF FUNDS
52.232-23	JAN 1986	ASSIGNMENT OF CLAIMS
52.232-25	OCT 2008	PROMPT PAYMENT; (ALTERNATE I) (FEB 2002)
52.232-33	OCT 2003	PAYMENT BY ELECTRONIC FUNDS TRANSFER – OTHER THAN CENTRAL CONTRACTOR REGISTRATION
52.233-1	JUL 2002	DISPUTES; (ALTERNATE I) (DEC 1991)
52.233-3	AUG 1996	PROTEST AFTER AWARD; (ALTERNATE I) (JUN 1985)
52.233-4	OCT 2004	APPLICABLE LAW FOR BREACH OF CONTRACT CLAIM
52.237-2	APR 1984	PROTECTION OF GOVERNMENT BUILDINGS, EQUIPMENT, AND VEGETATION
52.237-3	JAN 1991	CONTINUITY OF SERVICES
52.239-1	AUG 1996	PRIVACY OR SECURITY

52.242-1	AUG 1984	NOTICE OF INTENT TO DISALLOW COSTS
52.242-3	MAY 2001	PENALTIES FOR UNALLOWABLE COSTS
52.242-13	JUL 1995	BANKRUPTCY
52.243-6	APR 1984	CHANGE ORDER ACCOUNTING
52.243-7	APR 1984	NOTIFICATION OF CHANGES
52.244-2	OCT 2010	SUBCONTRACTS
52.244-5	DEC 1996	COMPETITION IN SUBCONTRACTING
52.244-6	DEC 2010	SUBCONTRACTS FOR COMMERCIAL ITEMS
52.245-1	APR 2012	GOVERNMENT PROPERTY (APR 2012)
52.245-9	APR 2012	USE & CHARGES
52.246-24	FEB 1997	LIMITATION OF LIABILITY – HIGH VALUE ITEMS
52.246-25	FEB 1997	LIMITATION OF LIABILITY – SERVICES
52.247-63	JUN 2003	PREFERENCE FOR U.S. FLAG AIR CARRIERS
52.247-64	FEB 2006	PREFERENCE FOR PRIVATELY OWNED U.S. FLAG COMMERCIAL VESSELS
52.247-68	FEB 2006	REPORT OF SHIPMENT (RESHIP)
52.248-1	OCT 2010	VALUE ENGINEERING
52.249-6	MAY 2004	TERMINATION (COST-REIMBURSEMENT)
52.249-14	APR 1984	EXCUSABLE DELAYS
52.251-1	APR 2012	GOVERNMENT SUPPLY SOURCES
52.253-1	JAN 1991	COMPUTER GENERATED FORMS

II. NASA FAR SUPPLEMENT (48 CFR CHAPTER 18) PROVISIONS

<u>CLAUSE NUMBER</u>	<u>DATE</u>	<u>TITLE</u>
1852.203-70	JUN 2001	DISPLAY OF INSPECTOR GENERAL HOTLINE POSTERS
1852.216-89	JUL 1997	ASSIGNMENT AND RELEASE FORMS
1852.219-74	SEP 1990	USE OF RURAL AREA SMALL BUSINESS
1852.219-75	MAY 1999	SMALL BUSINESS SUBCONTRACTING REPORTING
1852.219-77	MAY 2009	NASA MENTOR PROTÉGÉ PROGRAM
1852.219-79	MAY 2009	MENTOR REQUIREMENTS AND EVALUATION
1852.223-74	MAR 1996	DRUG AND ALCOHOL-FREE WORKPLACE
1852.228-75	OCT 1988	MINIMUM INSURANCE COVERAGE
1852.235-70	DEC 2006	CENTER FOR AEROSPACE INFORMATION
1852.237-70	DEC 1988	EMERGENCY EVACUATION PROCEDURES
1852.242-78	APR 2001	EMERGENCY MEDICAL SERVICES AND EVACUATION
1852.243-71	MAR 1997	SHARED SAVING

(End of Clauses Incorporated by Reference)

I.2 APPROVAL OF CONTRACT (FAR 52.204-1) (DEC 1989)

This contract is subject to the written approval of the JSC Procurement Officer and shall not be binding until so approved.

(End of clause)

I.3 UPDATES OF PUBLICLY AVAILABLE INFORMATION REGARDING RESPONSIBILITY MATTERS (FAR 52.209-9) (FEB 2012)

(a) The Contractor shall update the information in the Federal Awardee Performance and Integrity Information System (FAPIIS) on a semi-annual basis, throughout the life of the contract, by posting the required information in the Central Contractor Registration database via <https://www.acquisition.gov>.

(b) As required by section 3010 of the Supplemental Appropriations Act, 2010 (Pub. L. 111-212), all information posted in FAPIIS on or after April 15, 2011, except past performance reviews, will be publicly available. FAPIIS consists of two segments—

(1) The non-public segment, into which Government officials and the Contractor post information, which can only be viewed by—

(i) Government personnel and authorized users performing business on behalf of the Government; or

(ii) The Contractor, when viewing data on itself; and

(2) The publicly-available segment, to which all data in the non-public segment of FAPIIS is automatically transferred after a waiting period of 14 calendar days, except for—

(i) Past performance reviews required by subpart 42.15;

(ii) Information that was entered prior to April 15, 2011; or

(iii) Information that is withdrawn during the 14-calendar-day waiting period by the Government official who posted it in accordance with paragraph (c)(1) of this clause.

(c) The Contractor will receive notification when the Government posts new information to the Contractor's record.

(1) If the Contractor asserts in writing within 7 calendar days, to the Government official who posted the information, that some of the information posted to the non-public segment of FAPIIS is covered by a disclosure exemption under the Freedom of Information Act, the Government official who posted the information must within 7 calendar days remove the posting from FAPIIS and resolve the issue in accordance with agency Freedom of Information procedures, prior to reposting the releasable information. The contractor must cite 52.209-9 and request removal within 7 calendar days of the posting to FAPIIS.

(2) The Contractor will also have an opportunity to post comments regarding information that has been posted by the Government. The comments will be retained as long as the associated information is retained, i.e., for a total period of 6 years. Contractor comments will remain a part of the record unless the Contractor revises them.

(3) As required by section 3010 of Pub. L. 111-212, all information posted in FAPIIS on or after April 15, 2011, except past performance reviews, will be publicly available.

(d) Public requests for system information posted prior to April 15, 2011, will be handled under Freedom of Information Act procedures, including, where appropriate, procedures promulgated under E.O. 12600.

(End of clause)

I.4 NOTIFICATION OF OWNERSHIP CHANGES (FAR 52.215-19) (OCT 1997)

a) The Contractor shall make the following notifications in writing:

(1) When the Contractor becomes aware that a change in its ownership has occurred, or is certain to occur, that could result in changes in the valuation of its capitalized assets in

the accounting records, the Contractor shall notify the Administrative Contracting Officer (ACO) within 30 days.

(2) The Contractor shall also notify the ACO within 30 days whenever changes to asset valuations or any other cost changes have occurred or are certain to occur as a result of a change in ownership.

(b) The Contractor shall—

(1) Maintain current, accurate, and complete inventory records of assets and their costs;

(2) Provide the ACO or designated representative ready access to the records upon request;

(3) Ensure that all individual and grouped assets, their capitalized values, accumulated depreciation or amortization, and remaining useful lives are identified accurately before and after each of the Contractor's ownership changes; and

(4) Retain and continue to maintain depreciation and amortization schedules based on the asset records maintained before each Contractor ownership change.

(c) The Contractor shall include the substance of this clause in all subcontracts under this contract that meet the applicability requirement of FAR 15.408(k).

(End of clause)

I.5 ORDERING (FAR 52.216-18) (OCT 1995)

(a) Any supplies and services to be furnished under this contract shall be ordered by issuance of task orders by the individuals or activities designated in the Schedule. Such orders may be issued from **May 1, 2013** through **April 30, 2018**.

(b) All task orders are subject to the terms and conditions of this contract. In the event of conflict between a task order and this contract, the contract shall control.

(c) If mailed, a task order is considered "issued" when the Government deposits the order in the mail. Orders may be issued orally, by facsimile, or by electronic commerce methods only if authorized in the contract.

(End of clause)

I.6 ORDER LIMITATIONS (52.216-19) (OCT 1995)

(a) *Minimum order.* When the Government requires supplies or services covered by this contract in an amount of less than **\$25,000**, the Government is not obligated to purchase, nor is the Contractor obligated to furnish, those supplies or services under the contract.

(b) *Maximum order.* The Contractor is not obligated to honor -

- (1) Any order for a single item in excess of **\$350,000,000**;
- (2) Any order for a combination of items in excess of **\$350,000,000**; or
- (3) A series of orders from the same ordering office within **30** days that together call for quantities exceeding the limitation in subparagraph (b)(1) or (2) of this section.

(c) If this is a requirements contract (*i.e.*, includes the Requirements clause at subsection 52.216-21 of the Federal Acquisition Regulation (FAR)), the Government is not required to order a part of any one requirement from the Contractor if that requirement exceeds the maximum-order limitations in paragraph (b) of this section.

(d) Notwithstanding paragraphs (b) and (c) of this section, the Contractor shall honor any order exceeding the maximum order limitations in paragraph (b), unless that order (or orders) is returned to the ordering office within 10 calendar days after issuance, with written notice stating the Contractor's intent not to ship the item (or items) called for and the reasons. Upon receiving this notice, the Government may acquire the supplies or services from another source.

(End of clause)

I.7 INDEFINITE QUANTITY (52.216-22) (OCT 1995)

(a) This is an indefinite-quantity contract for the supplies or services specified, and effective for the period stated, in the Schedule. The quantities of supplies and services specified in the Schedule are estimates only and are not purchased by this contract.

(b) Delivery or performance shall be made only as authorized by orders issued in accordance with the Ordering clause. The Contractor shall furnish to the Government, when and if ordered, the supplies or services specified in the Schedule up to and including the quantity designated in the Schedule as the "maximum." The Government shall order at least the quantity of supplies or services designated in the Schedule as the "minimum."

(c) Except for any limitations on quantities in the Order Limitations clause or in the Schedule, there is no limit on the number of orders that may be issued. The Government may issue orders requiring delivery to multiple destinations or performance at multiple locations.

(d) Any order issued during the effective period of this contract and not completed within that period shall be completed by the Contractor within the time specified in the order. The contract shall govern the Contractor's and Government's rights and obligations with respect to that order to the same extent as if the order were completed during the contract's effective period; provided, that the Contractor shall not be required to make any deliveries under this contract after **12 months after the contract end date**.

(End of clause)

I.8 NOTICE FOR PRICE EVALUATION ADJUSTMENT FOR SMALL DISADVANTAGED BUSINESS CONCERNS (FAR 52.219-23)(OCT 2008)

(a) *Definitions.* As used in this clause—

“Historically black college or university” means an institution determined by the Secretary of Education to meet the requirements of 34 CFR 608.2. For the Department of Defense (DoD), the National Aeronautics and Space Administration (NASA), and the Coast Guard, the term also includes any nonprofit research institution that was an integral part of such a college or university before November 14, 1986.

“Minority institution” means an institution of higher education meeting the requirements of Section 365(3) of the Higher Education Act of 1965 (20 U.S.C. 1067k), including a Hispanic-serving institution of higher education, as defined in Section 502(a) of the Act (20 U.S.C. 1101a).

“Small disadvantaged business concern” means an Offeror that represents, as part of its offer, that it is a small business under the size standard applicable to this acquisition; and either—

- (1) It has received certification by the Small Business Administration as a small disadvantaged business concern consistent with 13 CFR Part 124, subpart B; and
 - (i) No material change in disadvantaged ownership and control has occurred since its certification;
 - (ii) Where the concern is owned by one or more disadvantaged individuals, the net worth of each individual upon whom the certification is based does not exceed \$750,000 after taking into account the applicable exclusions set forth at 13 CFR 124.104(c)(2); and
 - (iii) It is identified, on the date of its representation, as a certified small disadvantaged business concern in the database maintained by the Small Business Administration (PRO-Net).
 - (2) It has submitted a completed application to the Small Business Administration or a Private Certifier to be certified as a small disadvantaged business concern in accordance with 13 CFR Part 124, subpart B, and a decision on that application is pending, and that no material change in disadvantaged ownership and control has occurred since its application was submitted. In this case, in order to receive the benefit of a price evaluation adjustment, an Offeror must receive certification as a small disadvantaged business concern by the Small Business Administration prior to contract award; or
 - (3) Is a joint venture as defined in 13 CFR 124.1002(f).
- (b) Evaluation adjustment.
- (1) The Contracting Officer will evaluate offers by adding a factor of 10 percent to the price of all offers, except—
 - (i) Offers from small disadvantaged business concerns that have not waived the adjustment; and
 - (ii) An otherwise successful offer from a historically black college or university or minority institution.

- (2) The Contracting Officer will apply the factor to a line item or a group of line items on which award may be made. The Contracting Officer will apply other evaluation factors described in the solicitation before application of the factor. The factor may not be applied if using the adjustment would cause the contract award to be made at a price that exceeds the fair market price by more than the factor in paragraph (b)(1) of this clause.
- (c) *Waiver of evaluation adjustment.* A small disadvantaged business concern may elect to waive the adjustment, in which case the factor will be added to its offer for evaluation purposes. The agreements in paragraph (d) of this clause do not apply to offers that waive the adjustment.
- (N/A) Offeror elects to waive the adjustment.
- (d) Agreements.
- (1) A small disadvantaged business concern, that did not waive the adjustment, agrees that in performance of the contract, in the case of a contract for—
- (i) Services, except construction, at least 50 percent of the cost of personnel for contract performance will be spent for employees of the concern;
 - (ii) Supplies (other than procurement from a nonmanufacturer of such supplies), at least 50 percent of the cost of manufacturing, excluding the cost of materials, will be performed by the concern;
 - (iii) General construction, at least 15 percent of the cost of the contract, excluding the cost of materials, will be performed by employees of the concern; or
 - (iv) Construction by special trade contractors, at least 25 percent of the cost of the contract, excluding the cost of materials, will be performed by employees of the concern.
- (2) A small disadvantaged business concern submitting an offer in its own name shall furnish in performing this contract only end items manufactured or produced by small disadvantaged business concerns in the United States or its outlying areas. This paragraph does not apply to construction or service contracts.

(End of clause)

I.9 STATEMENT OF EQUIVALENT RATES FOR FEDERAL HIRES (FAR 52.222-42) (MAY 1989)

In compliance with the Service Contract Act of 1965, as amended, and the regulations of the Secretary of Labor (29 CFR part 4), this clause identifies the classes of service employees expected to be employed under the contract and states the wages and fringe benefits payable to each if they were employed by the contracting agency subject to the provisions of 5 U.S.C. 5341 or 5332. This statement can be found in Attachment J.12, Wage Determination and is for informational purposes only, and should not be considered as a wage determination.

(End of clause)

I.10 NOTICE OF RADIOACTIVE MATERIALS (FAR 52.223-7) (JAN 1997)

(a) The Contractor shall notify the Contracting Officer or designee, in writing, five days prior to the delivery of, or prior to completion of any servicing required by this contract of, items containing either (1) radioactive material requiring specific licensing under the regulations issued pursuant to the Atomic Energy Act of 1954, as amended, as set forth in Title 10 of the Code of Federal Regulations, in effect on the date of this contract, or (2) other radioactive material not requiring specific licensing in which the specific activity is greater than 0.002 microcuries per gram or the activity per item equals or exceeds 0.01 microcuries. Such notice shall specify the part or parts of the items which contain radioactive materials, a description of the materials, the name and activity of the isotope, the manufacturer of the materials, and any other information known to the Contractor which will put users of the items on notice as to the hazards involved (OMB No. 9000-0107).

(b) If there has been no change affecting the quantity of activity, or the characteristics and composition of the radioactive material from deliveries under this contract or prior contracts, the Contractor may request that the Contracting Officer or designee waive the notice requirement in paragraph (a) of this clause. Any such request shall-

(1) Be submitted in writing;

(2) State that the quantity of activity, characteristics, and composition of the radioactive material have not changed; and

(3) Cite the contract number on which the prior notification was submitted and the contracting office to which it was submitted.

(c) All items, parts, or subassemblies which contain radioactive materials in which the specific activity is greater than 0.002 microcuries per gram or activity per item equals or exceeds 0.01 microcuries, and all containers in which such items, parts or subassemblies are delivered to the Government shall be clearly marked and labeled as required by the latest revision of MIL-STD 129 in effect on the date of the contract.

(d) This clause, including this paragraph (d), shall be inserted in all subcontracts for radioactive materials meeting the criteria in paragraph (a) of this clause.

(End of clause)

**I.11 RIGHTS IN DATA-GENERAL (FAR 52.227-14) (DEC 2007) ALT II (DEC 2007)
(As modified by NASA FAR Supplement 1852.227-14)**

(a) Definitions. As used in this clause--

“Computer database” or “database” means a collection of recorded information in a form capable of, and for the purpose of, being stored in, processed, and operated on by a computer. The term does not include computer software.

“Computer software”—

(1) Means

(i) Computer programs that comprise a series of instructions, rules, routines, or statements, regardless of the media in which recorded, that allow or cause a computer to perform a specific operation or series of operations; and

- (ii) Recorded information comprising source code listings, design details, algorithms, processes, flow charts, formulas, and related material that would enable the computer program to be produced, created, or compiled.
- (2) Does not include computer databases or computer software documentation.

“Computer software documentation” means owner’s manuals, user’s manuals, installation instructions, operating instructions, and other similar items, regardless of storage medium, that explain the capabilities of the computer software or provide instructions for using the software.

“Data” means recorded information, regardless of form or the media on which it may be recorded. The term includes technical data and computer software. The term does not include information incidental to contract administration, such as financial, administrative, cost or pricing, or management information.

“Form, fit, and function data” means data relating to items, components, or processes that are sufficient to enable physical and functional interchangeability, and data identifying source, size, configuration, mating, and attachment characteristics, functional characteristics, and performance requirements. For computer software it means data identifying source, functional characteristics, and performance requirements but specifically excludes the source code, algorithms, processes, formulas, and flow charts of the software.

“Limited rights” means the rights of the Government in limited rights data as set forth in the Limited Rights Notice of subparagraph (g)(2) if included in this clause.

“Limited rights data” means data, other than computer software, that embody trade secrets or are commercial or financial and confidential or privileged, to the extent that such data pertain to items, components, or processes developed at private expense, including minor modifications.

“Restricted computer software” means computer software developed at private expense and that is a trade secret; is commercial or financial and is confidential or privileged; or is copyrighted computer software, including minor modifications of the computer software.

“Restricted rights,” as used in this clause, means the rights of the Government in restricted computer software, as set forth in a Restricted Rights Notice of paragraph (g) if included in this clause, or as otherwise may be provided in a collateral agreement incorporated in and made part of this contract, including minor modifications of such computer software.

“Technical data” means recorded information (regardless of the form or method of the recording) of a scientific or technical nature (including computer databases and computer software documentation). This term does not include computer software or financial, administrative, cost or pricing, or management data or other information incidental to contract administration. The term includes recorded information of a scientific or technical nature that is included in computer databases (See 41 U.S.C. 403(8)).

“Unlimited rights” means the right of the Government to use, disclose, reproduce, prepare derivative works, distribute copies to the public, and perform publicly and display publicly, in any manner and for any purpose, and to have or permit others to do so.

(b) Allocation of rights.

(1) Except as provided in paragraph (c) of this clause, the Government shall have unlimited rights in—

- (i) Data first produced in the performance of this contract;
- (ii) Form, fit, and function data delivered under this contract;
- (iii) Data delivered under this contract (except for restricted computer software) that constitute manuals or instructional and training material for installation, operation, or routine maintenance and repair of items, components, or processes delivered or furnished for use under this contract; and
- (iv) All other data delivered under this contract unless provided otherwise for limited rights data or restricted computer software in accordance with paragraph (g) of this clause.

(2) The Contractor shall have the right to—

- (i) Assert copyright in data first produced in the performance of this contract to the extent provided in paragraph (c)(1) of this clause;
- (ii) Use, release to others, reproduce, distribute, or publish any data first produced or specifically used by the Contractor in the performance of this contract, unless provided otherwise in paragraph (d) of this clause;
- (iii) Substantiate use of, add or correct limited rights, restricted rights, or copyright notices and to take other appropriate action, in accordance with paragraphs (e) and (f) of this clause; and
- (iv) Protect from unauthorized disclosure and use those data that are limited rights data or restricted computer software to the extent provided in paragraph (g) of this clause.

(c) Copyright—

(1) Data first produced in the performance of this contract.

- (i) Unless provided otherwise in paragraph (d) of this clause, the Contractor may establish, without prior approval of the Contracting Officer, claim to copyright in scientific and technical articles based on or containing data first produced in the performance of this contract and published in academic, technical or professional journals, symposia proceedings or similar works. The prior, express written permission of the Contracting Officer is required to assert copyright in all other data first produced in the performance of this contract.
- (ii) When authorized to assert copyright to the data, the Contractor shall affix the applicable copyright notices of 17 U.S.C. 401 or 402, and acknowledgment of Government sponsorship (including contract number).
- (iii) For data other than computer software, the Contractor grants to the Government, and others acting on its behalf, a paid-up, nonexclusive,

irrevocable worldwide license in such copyrighted data to reproduce, prepare derivative works, distribute copies to the public, and perform publicly and display publicly, by or on behalf of the Government. For computer software, the Contractor grants to the Government and others acting on its behalf, a paid-up nonexclusive, irrevocable worldwide license in such copyrighted computer software to reproduce, prepare derivative works, and perform publicly and display publicly (but not to distribute copies to the public) by or on behalf of the Government.

- (2) Data not first produced in the performance of this contract. The Contractor shall not, without prior written permission of the Contracting Officer, incorporate in data delivered under this contract any data not first produced in the performance of this contract unless the Contractor—
 - (i) Identifies the data; and
 - (ii) Grants to the Government, or acquires on its behalf, a license of the same scope as set forth in subparagraph (c)(1) of this clause or; if such data are restricted computer software, the Government shall acquire a copyright license as set forth in subparagraph (g)(4) of this clause (if included in this contract) or as otherwise provided in a collateral agreement incorporated in or made part of this contract.
- (3) Removal of copyright notices. The Government will not remove any authorized copyright notices placed on data pursuant to this paragraph (c), and will include such notices on all reproductions of the data.
- (d) Release, publication and use of data. The Contractor shall have the right to use, release to others, reproduce, distribute, or publish any data first produced or specifically used by the Contractor in the performance of this contract, except—
 - (1) As prohibited by Federal law or regulation (e.g., export control or national security laws or regulations);
 - (2) As expressly set forth in this contract; or
 - (3) If the Contractor receives or is given access to data necessary for the performance of this contract which contain restrictive markings, the Contractor shall treat the data in accordance with such markings unless otherwise specifically authorized otherwise in writing by the Contracting Officer.
 - (i) The Contractor agrees not to establish claim to copyright, publish or release to others any computer software first produced in the performance of this contract without the Contracting Officer's prior written permission.
 - (ii) If the Government desires to obtain copyright in computer software first produced in the performance of this contract and permission has not been granted as set forth in paragraph (d)(3)(i) of this clause, the Contracting Officer may direct the contractor to assert, or authorize the assertion of, claim to copyright in such data and to assign, or obtain the assignment of, such copyright to the Government or its designated assignee.
 - (iii) Whenever the word "establish" is used in this clause, with reference to a claim to copyright, it shall be construed to mean "assert".
- (e) Unauthorized marking of data.
 - (1) Notwithstanding any other provisions of this contract concerning inspection or

acceptance, if any data delivered under this contract are marked with the notices specified in paragraph (g)(3) or (g)(4) of this clause and use of the notices is not authorized by this clause, or if such data bears any other restrictive or limiting markings not authorized by this contract, the Contracting Officer may at any time either return the data to the Contractor, or cancel or ignore the markings. However, pursuant to 41 U.S.C. 253d, the following procedures shall apply prior to canceling or ignoring the markings.

- (i) The Contracting Officer will make written inquiry to the Contractor affording the Contractor 60 days from receipt of the inquiry to provide written justification to substantiate the propriety of the markings;
- (ii) If the Contractor fails to respond or fails to provide written justification to substantiate the propriety of the markings within the 60-day period (or a longer time approved in writing by the Contracting Officer for good cause shown), the Government shall have the right to cancel or ignore the markings at any time after said period and the data will no longer be made subject to any disclosure prohibitions.
- (iii) If the Contractor provides written justification to substantiate the propriety of the markings within the period set in subdivision (e)(1)(i) of this clause, the Contracting Officer will consider such written justification and determine whether or not the markings are to be canceled or ignored. If the Contracting Officer determines that the markings are authorized, the Contractor will be so notified in writing. If the Contracting Officer determines, with concurrence of the head of the contracting activity, that the markings are not authorized, the Contracting Officer will furnish the Contractor a written determination, which determination shall become the final agency decision regarding the appropriateness of the markings unless the Contractor files suit in a court of competent jurisdiction within 90 days of receipt of the Contracting Officer's decision. The Government shall continue to abide by the markings under this paragraph (e)(1)(iii) until final resolution of the matter either by the Contracting Officer's determination becoming final (in which instance the Government will thereafter have the right to cancel or ignore the markings at any time and the data will no longer be made subject to any disclosure prohibitions), or by final disposition of the matter by court decision if suit is filed.

(2) The time limits in the procedures set forth in subparagraph (e)(1) of this clause may be modified in accordance with agency regulations implementing the Freedom of Information Act (5 U.S.C. 552) if necessary to respond to a request thereunder.

(3) Except to the extent the Government's action occurs as the result of final disposition of the matter by a court of competent jurisdiction, the Contractor is not precluded by paragraph (e) of this clause from bringing a claim, in accordance with the Disputes clause of this contract, that may arise as a result of the Government removing or ignoring authorized markings on data delivered under this contract.

(f) Omitted or incorrect markings.

(1) Data delivered to the Government without any restrictive markings shall be deemed to have been furnished with unlimited rights. The Government is not liable

for the disclosure, use, or reproduction of such data.

(2) If the unmarked data has not been disclosed without restriction outside the Government, the Contractor may request, within 6 months (or a longer time approved by the Contracting Officer in writing for good cause shown) after delivery of such data, permission to have authorized notices placed on qualifying data at the Contractor's expense, and the Contracting Officer may agree to do so if the Contractor—

- (i) Identifies the data to which the omitted notice is to be applied;
- (ii) Demonstrates that the omission of the notice was inadvertent;
- (iii) Establishes that the use of the proposed notice is authorized; and
- (iv) Acknowledges that the Government has no liability for the disclosure, use, or reproduction of any data made prior to the addition of the notice or resulting from the omission of the notice.

(3) If data has been marked with an incorrect notice, the Contracting Officer may—

- (i) Permit correction of the notice at the Contractor's expense if the Contractor identifies the data and demonstrates that the correct notice is authorized, or
- (ii) Correct any incorrect notices.

(g) Protection of limited rights data and restricted computer software.

(1) The Contractor may withhold from delivery qualifying limited rights data or restricted computer software that are not data identified in paragraphs (b)(1)(i), (ii), and (iii) of this clause. As a condition to this withholding, the Contractor shall—

- (i) Identify the data being withheld; and
- (ii) Furnish form, fit, and function data instead.

(2) Limited rights data that are formatted as a computer database for delivery to the Government shall be treated as limited rights data and not restricted computer software.

(3) Notwithstanding paragraph (g)(1) of this clause, the contract may identify and specify the delivery of limited rights data, or the Contracting Officer may require by written request the delivery of limited rights data that has been withheld or would otherwise be entitled to be withheld. If delivery of that data is required, the Contractor shall affix the following "Limited Rights Notice" to the data and the Government will treat the data, subject to the provisions of paragraphs (e) and (f) of this clause, in accordance with the notice:

- (i) Use (except for manufacture) by support service contractors.
- (ii) Evaluation by nongovernment evaluators.
- (iii) Use (except for manufacture) by other contractors participating in the Government's program of which the specific contract is a part.
- (iv) Emergency repair or overhaul work.
- (v) Release to a foreign government, or its instrumentalities, if required to serve the interests of the U.S. Government, for information or evaluation, or for emergency repair or overhaul work by the foreign government.

(h) Subcontracting. The Contractor shall obtain from its subcontractors all data and rights therein necessary to fulfill the Contractor's obligations to the Government under this contract. If a subcontractor refuses to accept terms affording the Government such rights,

the Contractor shall promptly notify the Contracting Officer of the refusal and shall not proceed with the subcontract award without authorization in writing from the Contracting Officer.

(i) Relationship to patents or other rights. Nothing contained in this clause shall imply a license to the Government under any patent or be construed as affecting the scope of any license or other right otherwise granted to the Government.

(End of Clause)

I.12 CHANGES—COST-REIMBURSEMENT (FAR 52.243-2) (AUG 1987) (ALT II) (APR 1984)

(a) The Contracting Officer may at any time, by written order, and without notice to the sureties, if any, make changes within the general scope of this contract in any one or more of the following:

- (1) Description of services to be performed.
- (2) Time of performance (i.e., hours of the day, days of the week, etc.).
- (3) Place of performance of the services.
- (4) Drawings, designs, or specifications when the supplies to be furnished are to be specially manufactured for the Government in accordance with the drawings, designs, or specifications.
- (5) Method of shipment or packing of supplies.
- (6) Place of delivery.

(b) If any such change causes an increase or decrease in the estimated cost of, or the time required for, performance of any part of the work under this contract, whether or not changed by the order, or otherwise affects any other terms and conditions of this contract, the Contracting Officer shall make an equitable adjustment in the—

- (1) Estimated cost, delivery or completion schedule, or both;
- (2) Amount of any fixed fee; and
- (3) Other affected terms and shall modify the contract accordingly.

(c) The Contractor must assert its right to an adjustment under this clause within 30 days from the date of receipt of the written order. However, if the Contracting Officer decides that the facts justify it, the Contracting Officer may receive and act upon a proposal submitted before final payment of the contract.

(d) Failure to agree to any adjustment shall be a dispute under the Disputes clause. However, nothing in this clause shall excuse the Contractor from proceeding with the contract as changed.

(e) Notwithstanding the terms and conditions of paragraphs (a) and (b) of this clause, the estimated cost of this contract and, if this contract is incrementally funded, the funds allotted for the performance of this contract, shall not be increased or considered to be increased except by specific written modification of the contract indicating the new contract estimated cost and, if this contract is incrementally funded, the new amount allotted to the contract. Until this modification is made, the Contractor shall not be obligated to continue performance or incur costs beyond the point established in the

Limitation of Cost or Limitation of Funds clause of this contract.

(End of clause)

I.13 CLAUSES INCORPORATED BY REFERENCE (FAR 52.252-2) (FEB 1998)

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at this/these address(es):

<http://www.arnet.gov/far/>

<http://www.hq.nasa.gov/office/procurement/regs/nfstoc.htm>

(End of clause)

I.14 SECURITY CLASSIFICATION REQUIREMENTS (NFS 1852.204-75) (SEP 1989)

Performance under this contract will involve access to and/or generation of classified information, work in a security area, or both, up to the level of SECRET. See FAR clause 52.204-2 (Security Requirements) in this contract and DD Form 254, Contract Security Classification Specification, Attachment J-14, DD 254 Department of Defense Contract Security Classification Specification.

(End of clause)

I.15 SECURITY REQUIREMENTS FOR UNCLASSIFIED INFORMATION TECHNOLOGY RESOURCES (NFS 1852.204-76) (JAN 2011)

- (a) The Contractor shall protect the confidentiality, integrity, and availability of NASA Electronic Information and IT resources and protect NASA Electronic Information from unauthorized disclosure.
- (b) This clause is applicable to all NASA Contractors and subcontractors that process, manage, access, or store unclassified electronic information, to include Sensitive But Unclassified (SBU) information, for NASA in support of NASA's missions, programs, projects and/or institutional requirements. Applicable requirements, regulations, policies, and guidelines are identified in the Applicable Documents List (ADL) provided as an attachment to the contract. The documents listed in the ADL can be found at: www.nasa.gov/offices/ocio/itsecurity/index.html. For policy information considered sensitive, the documents will be identified as such in the ADL.

and made available through the Contracting Officer.

(c) Definitions

- (1) IT resources means any hardware or software or interconnected system or subsystem of equipment, that is used to process, manage, access, or store electronic information.
- (2) NASA Electronic Information is any data (as defined in the Rights in Data clause of this contract) or information (including information incidental to contract administration, such as financial, administrative, cost or pricing, or management information) that is processed, managed, accessed or stored on an IT system(s) in the performance of a NASA contract.
- (3) IT Security Management Plan -- This plan shall describe the processes and procedures that will be followed to ensure appropriate security of IT resources that are developed, processed, or used under this contract.
- (4) IT Security Plan – this is a FISMA requirement; see the ADL for applicable requirements.

Within 30 days after contract award, the Contractor shall develop and deliver an IT Security Management Plan. The delivery address and approval authority will be included in DRD IT-02.

All Contractor personnel requiring physical or logical access to NASA IT resources must complete NASA's annual IT Security Awareness training. Refer to the IT Training policy located in the IT Security website at <https://itsecurity.nasa.gov/policies/index.html>.

- (d) The Contractor shall afford Government access to the Contractor's and subcontractors' facilities, installations, operations, documentation, databases, and personnel used in performance of the contract. Access shall be provided to the extent required to carry out a program of IT inspection (to include vulnerability testing), investigation and audit to safeguard against threats and hazards to the integrity, availability, and confidentiality of NASA Electronic Information or to the function of IT systems operated on behalf of NASA, and to preserve evidence of computer crime.
- (e) At the completion of the contract, the Contractor shall return all NASA information and IT resources provided to the Contractor during the performance of the contract in accordance with retention documentation available in the ADL. The Contractor shall provide a listing of all NASA Electronic information and IT resources generated in performance of the contract. At that time, the Contractor shall request disposition instructions from the Contracting Officer. The Contracting Officer will provide disposition instructions within 30 calendar days of the Contractor's request.
- (f) The Contracting Officer may waive specific requirements of this clause upon request of the Contractor. The Contractor shall provide all relevant information requested by the Contracting Officer to support the waiver request.

The Contractor shall insert this clause, including this paragraph in all subcontracts that process, manage, access or store NASA Electronic Information in support of the mission of the Agency.

(End of clause)

I.16 OMBUDSMAN (NFS 1852.215-84) (NOV 2011) (ALTERNATE I) (NOV 2011)

- (a) An ombudsman has been appointed to hear and facilitate the resolution of concerns from Offerors, potential Offerors, and contractors during the pre-award and post-award phases of this acquisition. When requested, the ombudsman will maintain strict confidentiality as to the source of the concern. The existence of the ombudsman is not to diminish the authority of the contracting officer, the Source Evaluation Board, or the selection official. Further, the ombudsman does not participate in the evaluation of proposals, the source selection process, or the adjudication of formal contract disputes. Therefore, before consulting with an ombudsman, interested parties must first address their concerns, issues, disagreements, and/or recommendations to the contracting officer for resolution.
- (b) If resolution cannot be made by the contracting officer, interested parties may contact the installation ombudsman, whose name, address, telephone number, facsimile number, and e-mail address may be found at:
http://prod.nais.nasa.gov/pub/pub_library/Omb.html. Concerns, issues, disagreements, and recommendations which cannot be resolved at the installation may be referred to the Agency ombudsman identified at the above URL. Please do not contact the ombudsman to request copies of the solicitation, verify offer due date, or clarify technical requirements. Such inquiries shall be directed to the Contracting Officer or as specified elsewhere in this document.

(End of clause)

I.17 NASA 8 PERCENT GOAL (NFS 1852.219-76) (JUL 1997)

- (a) Definitions.
 - "Historically Black Colleges or University," as used in this clause, means an institution determined by the Secretary of Education to meet the requirements of 34 CFR Section 608.2. The term also includes any nonprofit research institution that was an integral part of such a college or university before November 14, 1986.
 - "Minority institutions," as used in this clause, means an institution of higher education meeting the requirements of section 1046(3) of the Higher Education Act of 1965 (20 U.S.C. 1135d-5(3)) which for the purposes of this clause includes a Hispanic-serving institution of higher education as defined in section 316(b)(1) of the Act (20 U.S.C. 1059c(b)(1)).

"Small disadvantaged business concern," as used in this clause, means a small business concern that (1) is at least 51 percent unconditionally owned by one or more individuals who are both socially and economically disadvantaged, or a publicly owned business having at least 51 percent of its stock unconditionally owned by one or more socially and economically disadvantaged individuals, and (2) has its management and daily business controlled by one or more such individuals. This term also means a small business concern that is at least 51 percent unconditionally owned by an economically disadvantaged Indian tribe or Native Hawaiian Organization, or a publicly owned business having at least 51 percent of its stock unconditionally owned by one or more of these entities, which has its management and daily business controlled by members of an economically disadvantaged Indian tribe or Native Hawaiian Organization, and which meets the requirements of 13 CFR 124.

"Women-owned small business concern," as used in this clause, means a small business concern (1) which is at least 51 percent owned by one or more women or, in the case of any publicly owned business, at least 51 percent of the stock of which is owned by one or more women, and (2) whose management and daily business operations are controlled by one or more women.

- (b) The NASA Administrator is required by statute to establish annually a goal to make available to small disadvantaged business concerns, Historically Black Colleges and Universities, minority institutions, and women-owned small business concerns, at least 8 percent of NASA's procurement dollars under prime contracts or subcontracts awarded in support of authorized programs, including the space station by the time operational status is obtained.
- (c) The Contractor hereby agrees to assist NASA in achieving this goal by using its best efforts to award subcontracts to such entities to the fullest extent consistent with efficient contract performance.
- (d) Contractors acting in good faith may rely on written representations by their subcontractors regarding their status as small disadvantaged business concerns, Historically Black Colleges and Universities, minority institutions, and women-owned small business concerns.

(End of clause)

I.18 RESTRICTION ON FUNDING ACTIVITY WITH CHINA (PIC 12-01A)

(a) Definition - "China" or "Chinese-owned company" means the People's Republic of China, any company owned by the People's Republic of China or any company incorporated under the laws of the People's Republic of China.

(b) Public Laws 112-10, Section 1340(a) and 112-55, Section 539, restrict NASA from contracting to participate, collaborate, coordinate bilaterally in any way with China or a

Chinese-owned company using funds appropriated on or after April 25, 2011. Contracts for commercial and non developmental items are exempted from the prohibition because they constitute purchase of goods or services that would not involve participation, collaboration, or coordination between the parties.

(c) This contract may use restricted funding that was appropriated on or after April 25, 2011. The contractor shall not contract with China or Chinese-owned companies for any effort related to this contract except for acquisition of commercial and non-developmental items. If the contractor anticipates making an award to China or Chinese-owned companies, the contractor must contact the contracting officer to determine if funding on this contract can be used for that purpose.

(d) Subcontracts - The contractor shall include the substance of this clause in all subcontracts made hereunder.

(End of clause)

I.19 ACCESS TO SENSITIVE INFORMATION (NFS 1852.237-72)(JUN 2005)

- (a) As used in this clause, "sensitive information" refers to information that a Contractor has developed at private expense, or that the Government has generated that qualifies for an exception to the Freedom of Information Act, which is not currently in the public domain, and which may embody trade secrets or commercial or financial information, and which may be sensitive or privileged.
- (b) To assist NASA in accomplishing management activities and administrative functions, the Contractor shall provide the services specified elsewhere in this contract.
- (c) If performing this contract entails access to sensitive information, as defined above, the Contractor agrees to--
 - (1) Utilize any sensitive information coming into its possession only for the purposes of performing the services specified in this contract, and not to improve its own competitive position in another procurement.
 - (2) Safeguard sensitive information coming into its possession from unauthorized use and disclosure.
 - (3) Allow access to sensitive information only to those employees that need it to perform services under this contract.
 - (4) Preclude access and disclosure of sensitive information to persons and entities outside of the Contractor's organization.

- (5) Train employees who may require access to sensitive information about their obligations to utilize it only to perform the services specified in this contract and to safeguard it from unauthorized use and disclosure.
- (6) Obtain a written affirmation from each employee that he/she has received and will comply with training on the authorized uses and mandatory protections of sensitive information needed in performing this contract.
- (7) Administer a monitoring process to ensure that employees comply with all reasonable security procedures, report any breaches to the Contracting Officer, and implement any necessary corrective actions.
- (d) The Contractor will comply with all procedures and obligations specified in its Organizational Conflicts of Interest Mitigation Plan (DRD MGMT-12), which this contract incorporates as a compliance document.
- (e) The nature of the work on this contract may subject the Contractor and its employees to a variety of laws and regulations relating to ethics, conflicts of interest, corruption, and other criminal or civil matters relating to the award and administration of Government contracts. Recognizing that this contract establishes a high standard of accountability and trust, the Government will carefully review the Contractor's performance in relation to the mandates and restrictions found in these laws and regulations. Unauthorized uses or disclosures of sensitive information may result in termination of this contract for default, or in debarment of the Contractor for serious misconduct affecting present responsibility as a Government Contractor.
- (f) The Contractor shall include the substance of this clause, including this paragraph (f), suitably modified to reflect the relationship of the parties, in all subcontracts that may involve access to sensitive information

(End of clause)

I.20 RELEASE OF SENSITIVE INFORMATION (NFS 1852.237-73) (JUN 2005)

- (a) As used in this clause, "Sensitive information" refers to information, not currently in the public domain, that the Contractor has developed at private expense, that may embody trade secrets or commercial or financial information, and that may be sensitive or privileged.
- (b) In accomplishing management activities and administrative functions, NASA relies heavily on the support of various service providers. To support NASA activities and functions, these service providers, as well as their subcontractors and their individual employees, may need access to sensitive information submitted by the Contractor under this contract. By submitting this proposal or performing this contract, the Contractor agrees that NASA may release to its service providers, their subcontractors,

and their individual employees, sensitive information submitted during the course of this procurement, subject to the enumerated protections mandated by the clause at NFS 1852.237-72, Access to Sensitive Information.

- (c) (1) The Contractor shall identify any sensitive information submitted in support of this proposal or in performing this contract. For purposes of identifying sensitive information, the Contractor may, in addition to any other notice or legend otherwise required, use a notice similar to the following:

Mark the title page with the following legend:

“This proposal or document includes sensitive information that NASA shall not disclose outside the Agency and its service providers that support management activities and administrative functions. To gain access to this sensitive information, a service provider's contract must contain the clause at NFS 1852.237-72, Access to Sensitive Information. Consistent with this clause, the service provider shall not duplicate, use, or disclose the information in whole or in part for any purpose other than to perform the services specified in its contract. This restriction does not limit the Government's right to use this information if it is obtained from another source without restriction. The information subject to this restriction is contained in pages [insert page number(s)].”

Mark each page of sensitive information the Contractor wishes to restrict with the following legend:

“Use or disclosure of sensitive information contained on this page is subject to the restriction on the title page of this proposal or document.”

- (2) The Contracting Officer shall evaluate the facts supporting any claim that particular information is "sensitive." This evaluation shall consider the time and resources necessary to protect the information in accordance with the detailed safeguards mandated by the clause at NFS 1852.237-72, Access to Sensitive Information. However, unless the Contracting Officer decides, with the advice of Center counsel, that reasonable grounds exist to challenge the Contractor's claim that particular information is sensitive, NASA and its service providers and their employees shall comply with all of the safeguards contained in paragraph (d) of this clause.
- (d) To receive access to sensitive information needed to assist NASA in accomplishing management activities and administrative functions, the service provider must be operating under a contract that contains the clause at NFS 1852.237-72, Access to Sensitive Information. This clause obligates the service provider to do the following:
- (1) Comply with all specified procedures and obligations, including the Organizational Conflicts of Interest Mitigation Plan (DRD MGMT-12), which the contract has incorporated as a compliance document.

- (2) Utilize any sensitive information coming into its possession only for the purpose of performing the services specified in its contract.
 - (3) Safeguard sensitive information coming into its possession from unauthorized use and disclosure.
 - (4) Allow access to sensitive information only to those employees that need it to perform services under its contract.
 - (5) Preclude access and disclosure of sensitive information to persons and entities outside of the service provider's organization.
 - (6) Train employees who may require access to sensitive information about their obligations to utilize it only to perform the services specified in its contract and to safeguard it from unauthorized use and disclosure.
 - (7) Obtain a written affirmation from each employee that he/she has received and will comply with training on the authorized uses and mandatory protections of sensitive information needed in performing this contract.
 - (8) Administer a monitoring process to ensure that employees comply with all reasonable security procedures, report any breaches to the Contracting Officer, and implement any necessary corrective actions.
- (e) When the service provider will have primary responsibility for operating an information technology system for NASA that contains sensitive information, the service provider's contract shall include the clause at NFS 1852.204-76, Security Requirements for Unclassified Information Technology Resources. The Security Requirements clause requires the service provider to implement an Information Technology Security Plan to protect information processed, stored, or transmitted from unauthorized access, alteration, disclosure, or use. Service provider personnel requiring privileged access or limited privileged access to these information technology systems are subject to screening using the standard National Agency Check (NAC) forms appropriate to the level of risk for adverse impact to NASA missions. The Contracting Officer may allow the service provider to conduct its own screening, provided the service provider employs substantially equivalent screening procedures.
- (f) This clause does not affect NASA's responsibilities under the Freedom of Information Act.
- (g) The Contractor shall insert this clause, including this paragraph (g); suitably modified to reflect the relationship of the parties, in all subcontracts that may require the furnishing of sensitive information.

(End of clause)

I.21 RIGHTS TO PROPOSAL DATA (TECHNICAL) (FAR 52.227-23) (Jun 1987)

Except for data contained on pages N/A, it is agreed that as a condition of award of this contract, and notwithstanding the conditions of any notice appearing thereon, the Government shall have unlimited rights (as defined in the “Rights in Data—General” clause contained in this contract) in and to the technical data contained in the proposal dated June 20, 2012, upon which this contract is based.

(End of clause)

I.22 PATENT RIGHTS—OWNERSHIP BY THE CONTRACTOR (FAR 52.227-11) (Dec 2007) (NFS 1852.227-11)

(a) As used in this clause—

“Invention” means any invention or discovery that is or may be patentable or otherwise protectable under title 35 of the U.S. Code, or any variety of plant that is or may be protectable under the Plant Variety Protection Act (7 U.S.C. 2321, *et seq.*)

“Made” means—

- (1) When used in relation to any invention other than a plant variety, the conception or first actual reduction to practice of the invention; or
- (2) When used in relation to a plant variety, that the Contractor has at least tentatively determined that the variety has been reproduced with recognized characteristics.

“Nonprofit organization” means a university or other institution of higher education or an organization of the type described in section 501(c)(3) of the Internal Revenue Code of 1954 (26 U.S.C. 501(c)) and exempt from taxation under section 501(a) of the Internal Revenue Code (26 U.S.C. 501(a)), or any nonprofit scientific or educational organization qualified under a State nonprofit organization statute.

“Practical application” means to manufacture, in the case of a composition of product; to practice, in the case of a process or method; or to operate, in the case of a machine or system; and, in each case, under such conditions as to establish that the invention is being utilized and that its benefits are, to the extent permitted by law or Government regulations, available to the public on reasonable terms.

“Subject invention” means any invention of the Contractor made in the performance of work under this contract.

(b) *Contractor’s rights.*

(1) *Ownership.* The Contractor may retain ownership of each subject invention throughout the world in accordance with the provisions of this clause.

(2) *License.*

(i) The Contractor shall retain a nonexclusive royalty-free license throughout the world in each subject invention to which the Government obtains title, unless the Contractor fails to disclose the invention within the times specified in paragraph (c) of this clause. The Contractor’s license extends to any domestic subsidiaries and affiliates within the

corporate structure of which the Contractor is a part, and includes the right to grant sublicenses to the extent the Contractor was legally obligated to do so at contract award. The license is transferable only with the written approval of the agency, except when transferred to the successor of that part of the Contractor's business to which the invention pertains.

- (ii) The Contractor's license may be revoked or modified by the agency to the extent necessary to achieve expeditious practical application of the subject invention in a particular country in accordance with the procedures in FAR 27.302(i)(2) and 27.304-1(f).

(c) *Contractor's obligations.*

- (1) The Contractor shall disclose in writing each subject invention to the Contracting Officer within 2 months after the inventor discloses it in writing to Contractor personnel responsible for patent matters. The disclosure shall identify the inventor(s) and this contract under which the subject invention was made. It shall be sufficiently complete in technical detail to convey a clear understanding of the subject invention. The disclosure shall also identify any publication, on sale (*i.e.*, sale or offer for sale), or public use of the subject invention, or whether a manuscript describing the subject invention has been submitted for publication and, if so, whether it has been accepted for publication. In addition, after disclosure to the agency, the Contractor shall promptly notify the Contracting Officer of the acceptance of any manuscript describing the subject invention for publication and any on sale or public use.
- (2) The Contractor shall elect in writing whether or not to retain ownership of any subject invention by notifying the Contracting Officer within 2 years of disclosure to the agency. However, in any case where publication, on sale, or public use has initiated the 1-year statutory period during which valid patent protection can be obtained in the United States, the period for election of title may be shortened by the agency to a date that is no more than 60 days prior to the end of the statutory period.
- (3) The Contractor shall file either a provisional or a nonprovisional patent application or a Plant Variety Protection Application on an elected subject invention within 1 year after election. However, in any case where a publication, on sale, or public use has initiated the 1-year statutory period during which valid patent protection can be obtained in the United States, the Contractor shall file the application prior to the end of that statutory period. If the Contractor files a provisional application, it shall file a non-provisional application within 10 months of the filing of the provisional application. The Contractor shall file patent applications in additional countries or international patent offices within either 10 months of the first filed patent application (whether provisional or non-provisional) or 6 months from the date permission is granted by the Commissioner of Patents to file foreign patent applications where such filing has been prohibited by a Secrecy Order.
- (4) The Contractor may request extensions of time for disclosure, election, or filing under paragraphs (c)(1), (c)(2), and (c)(3) of this clause.
- (5) The Contractor may use whatever format is convenient to disclose subject inventions required in subparagraph (c)(1). NASA prefers that the contractor use either the electronic or paper version of NASA Form 1679, Disclosure of Invention and New Technology (Including Software) to disclose subject inventions. Both the electronic and paper versions of NASA Form 1679 may be accessed at the electronic New

Technology Reporting Web site <http://ntr.ndc.nasa.gov/>.

- (6) In addition to the above, the Contractor shall provide the New Technology Representative identified in this contract at 1852.227-72 the following:
- (i) An interim new technology summary report every 12 months (or such longer period as the Contracting Officer may specify) from the date of the contract, listing all subject inventions required to be disclosed during the period or certifying that there were none.
 - (ii) A final new technology summary report, within 3 months after completion of the contracted work, listing all subject inventions or certifying that there were none.
 - (iii) Upon request, the filing date, serial number and title, a copy of the patent application, and patent number and issue date for any subject invention in any country in which the contractor has applied for patents.
 - (iv) An irrevocable power to inspect and make copies of the patent application file, by the Government, when a Federal Government employee is a coinventor.

(d) *Government's rights—*

- (1) *Ownership.* The Contractor shall assign to the agency, on written request, title to any subject invention—
- (i) If the Contractor fails to disclose or elect ownership to the subject invention within the times specified in paragraph (c) of this clause, or elects not to retain ownership; provided, that the agency may request title only within 60 days after learning of the Contractor's failure to disclose or elect within the specified times.
 - (ii) In those countries in which the Contractor fails to file patent applications within the times specified in paragraph (c) of this clause; provided, however, that if the Contractor has filed a patent application in a country after the times specified in paragraph (c) of this clause, but prior to its receipt of the written request of the agency, the Contractor shall continue to retain ownership in that country.
 - (iii) In any country in which the Contractor decides not to continue the prosecution of any application for, to pay the maintenance fees on, or defend in reexamination or opposition proceeding on, a patent on a subject invention.
- (2) *License.* If the Contractor retains ownership of any subject invention, the Government shall have a nonexclusive, nontransferable, irrevocable, paid-up license to practice, or have practiced for or on its behalf, the subject invention throughout the world.

(e) *Contractor action to protect the Government's interest.*

- (1) The Contractor shall execute or have executed and promptly deliver to the agency all instruments necessary to—
- (i) Establish or confirm the rights the Government has throughout the world in those subject inventions in which the Contractor elects to retain ownership; and
 - (ii) Assign title to the agency when requested under paragraph (d) of this clause and to enable the Government to obtain patent protection and plant variety protection for that subject invention in any country.
 - (iii) The Contractor shall, through employee agreements or other suitable Contractor policy, require that its employees “will assign and do hereby assign” to the Contractor all right, title, and interest in any invention resulting or that may result from their performance of work under this Contract.

- (2) The Contractor shall require, by written agreement, its employees, other than clerical and nontechnical employees, to disclose promptly in writing to personnel identified as responsible for the administration of patent matters and in the Contractor's format, each subject invention in order that the Contractor can comply with the disclosure provisions of paragraph (c) of this clause, and to execute all papers necessary to file patent applications on subject inventions and to establish the Government's rights in the subject inventions. The disclosure format should require, as a minimum, the information required by paragraph (c)(1) of this clause. The Contractor shall instruct such employees, through employee agreements or other suitable educational programs, as to the importance of reporting inventions in sufficient time to permit the filing of patent applications prior to U.S. or foreign statutory bars.
- (3) The Contractor shall notify the Contracting Officer of any decisions not to file a non-provisional patent application, continue the prosecution of a patent application, pay maintenance fees, or defend in a reexamination or opposition proceeding on a patent, in any country, not less than 30 days before the expiration of the response or filing period required by the relevant patent office.
- (4) The Contractor shall include, within the specification of any United States non-provisional patent or plant variety protection application and any patent or plant variety protection certificate issuing thereon covering a subject invention, the following statement, "This invention was made with Government support under (identify the contract) awarded by (identify the agency). The Government has certain rights in the invention."
- (f) *Reporting on utilization of subject inventions.* The Contractor shall submit, on request, periodic reports no more frequently than annually on the utilization of a subject invention or on efforts at obtaining utilization of the subject invention that are being made by the Contractor or its licensees or assignees. The reports shall include information regarding the status of development, date of first commercial sale or use, gross royalties received by the Contractor, and other data and information as the agency may reasonably specify. The Contractor also shall provide additional reports as may be requested by the agency in connection with any march-in proceeding undertaken by the agency in accordance with paragraph (h) of this clause. The Contractor also shall mark any utilization report as confidential/proprietary to help prevent inadvertent release outside the Government. As required by 35 U.S.C. 202(c)(5), the agency will not disclose that information to persons outside the Government without the Contractor's permission.
- (g) *Preference for United States industry.* Notwithstanding any other provision of this clause, neither the Contractor nor any assignee shall grant to any person the exclusive right to use or sell any subject invention in the United States unless the person agrees that any products embodying the subject invention or produced through the use of the subject invention will be manufactured substantially in the United States. However, in individual cases, the requirement for an agreement may be waived by the agency upon a showing by the Contractor or its assignee that reasonable but unsuccessful efforts have been made to grant licenses on similar terms to potential licensees that would be likely to manufacture substantially in the United States, or that under the circumstances domestic manufacture is not commercially feasible.

- (h) *March-in rights.* The Contractor acknowledges that, with respect to any subject invention in which it has retained ownership, the agency has the right to require licensing pursuant to 35 U.S.C. 203 and 210(c), and in accordance with the procedures in 37 CFR 401.6 and any supplemental regulations of the agency in effect on the date of contract award.
- (i) Special provisions for contracts with nonprofit organizations. If the Contractor is a nonprofit organization, it shall—
- (1) Not assign rights to a subject invention in the United States without the written approval of the agency, except where an assignment is made to an organization that has as one of its primary functions the management of inventions, *provided*, that the assignee shall be subject to the same provisions as the Contractor;
 - (2) Share royalties collected on a subject invention with the inventor, including Federal employee co-inventors (but through their agency if the agency deems it appropriate) when the subject invention is assigned in accordance with 35 U.S.C. 202(e) and 37 CFR 401.10;
 - (3) Use the balance of any royalties or income earned by the Contractor with respect to subject inventions, after payment of expenses (including payments to inventors) incidental to the administration of subject inventions for the support of scientific research or education; and
 - (4) Make efforts that are reasonable under the circumstances to attract licensees of subject inventions that are small business concerns, and give a preference to a small business concern when licensing a subject invention if the Contractor determines that the small business concern has a plan or proposal for marketing the invention which, if executed, is equally as likely to bring the invention to practical application as any plans or proposals from applicants that are not small business concerns; *provided*, that the Contractor is also satisfied that the small business concern has the capability and resources to carry out its plan or proposal. The decision whether to give a preference in any specific case will be at the discretion of the Contractor.
 - (5) Allow the Secretary of Commerce to review the Contractor's licensing program and decisions regarding small business applicants, and negotiate changes to its licensing policies, procedures, or practices with the Secretary of Commerce when the Secretary's review discloses that the Contractor could take reasonable steps to more effectively implement the requirements of paragraph (i)(4) of this clause.
- (j) For the purposes of this clause, communications between the Contractor and the Government shall be as specified in the NASA FAR Supplement at 1852.227-72, Designation of New Technology Representative and Patent Representative.
- (k) *Subcontracts.*
- (1) The Contractor shall include the substance of this clause, including this paragraph (k), in all subcontracts for experimental, developmental, or research work to be performed by a small business concern or nonprofit organization.
 - (2) The Contractor shall include the clause in the NASA FAR Supplement at 1852.227-70, New Technology, suitably modified to identify the parties, in all subcontracts, regardless of tier, for experimental, developmental, research, design, or engineering

work to be performed by other than a small business firm or nonprofit organization. At all tiers, the New Technology clause must be modified to identify the parties as follows: references to the Government are not changed, and in all references to the Contractor the subcontractor is substituted for the Contractor so that the subcontractor has all rights and obligations of the Contractor in the clause.

- (3) At all tiers, the patent rights clause must be modified to identify the parties as follows: references to the Government are not changed, and the subcontractor has all rights and obligations of the Contractor in the clause. The Contractor shall not, as part of the consideration for awarding the subcontract, obtain rights in the subcontractor's subject inventions.
- (4) In subcontracts, at any tier, the agency, the subcontractor, and the Contractor agree that the mutual obligations of the parties created by this clause constitute a contract between the subcontractor and the agency with respect to the matters covered by the clause; provided, however, that nothing in this paragraph is intended to confer any jurisdiction under the Contract Disputes Act in connection with proceedings under paragraph (h) of this clause.

(End of clause)

I.23 PROVIDING ACCELERATED PAYMENTS TO SMALL BUSINESS SUBCONTRACTORS (FAR 52.232-99) (AUG 2012) (DEVIATION)

This clause implements the temporary policy provided by OMB Policy Memorandum M-12-16, Providing Prompt Payment to Small Business Subcontractors, dated July 11, 2012.

- (a) Upon receipt of accelerated payments from the Government, the contractor is required to make accelerated payments to small business subcontractors to the maximum extent practicable after receipt of a proper invoice and all proper documentation from the small business subcontractor.
- (b) Include the substance of this clause, including this paragraph (b), in all subcontracts with small business concerns.
- (c) The acceleration of payments under this clause does not provide any new rights under the Prompt Payment Act.

(End of clause)

I.24 NONDISPLACEMENT OF QUALIFIED WORKERS (FAR 52.222-17) (JAN 2013)

(a) "Service employee", as used in this clause, means any person engaged in the performance of a service contract other than any person employed in a bona fide executive, administrative, or professional capacity, as those terms are defined in 29 CFR part 541. The term "service employee" includes all such persons regardless of any contractual relationship that may be alleged to exist between a contractor or subcontractor and such persons.

(b) The Contractor and its subcontractors shall, except as otherwise provided herein, in good faith offer those service employees employed under the predecessor contract whose employment will be terminated as a result of award of this contract or the expiration of the contract under which the service employees were hired, a right of first refusal of employment under this contract in positions for which the service employees are qualified.

(1) The Contractor and its subcontractors shall determine the number of service employees necessary for efficient performance of this contract and may elect to employ fewer employees than the predecessor Contractor employed in connection with performance of the work.

(2) Except as provided in paragraph (c) of this clause, there shall be no employment opening under this contract, and the Contractor and any subcontractors shall not offer employment under this contract, to any person prior to having complied fully with this obligation.

(i) The successor Contractor and its subcontractors shall make a bona fide express offer of employment to each service employee as provided herein and shall state the time within which the service employee must accept such offer, but in no case shall the period within which the service employee must accept the offer of employment be less than 10 days.

(ii) The successor Contractor and its subcontractors shall decide any question concerning a service employee's qualifications based upon the individual's education and employment history, with particular emphasis on the employee's experience on the predecessor contract, and the Contractor may utilize employment screening processes only when such processes are provided for by the contracting agency, are conditions of the service contract, and are consistent with Executive Order 13495.

(iii) Where the successor Contractor does not initially offer employment to all the predecessor contract service employees, the obligation to offer employment shall continue for 90 days after the successor contractor's first date of performance on the contract.

(iv) An offer of employment will be presumed to be bona fide even if it is not for a position similar to the one the employee previously held, but is one for which the employee is qualified, and even if it is subject to different employment terms and conditions, including changes to pay or benefits. (See 29 CFR 9.12 for a detailed description of a bonafide offer of employment).

(c)(1) Notwithstanding the obligation under paragraph (b) of this clause, the successor Contractor and any subcontractors (i) may employ under this contract any service employee who has worked for the contractor or subcontractor for at least three months immediately preceding the commencement of this contract and who would otherwise face lay-off or discharge, (ii) are not required to offer a right of first refusal to any service employee(s) of the predecessor contractor who are not service employees within the meaning of the Service Contract Act, 41 U.S.C. 6701(3), and (iii) are not required to offer a right of first refusal to any service employee(s) of the predecessor contractor whom the Contractor or any of its subcontractors reasonably believes, based on the particular service employee's past performance, has failed to perform suitably on the job (see 29 CFR 9.12 (c)(4) for additional information). The successor Contractor bears the responsibility of demonstrating the appropriateness of claiming any of these exceptions.

(2) In addition, any Contractor or subcontractor that has been certified by the U.S. Small Business Administration as a HUBZone small business concern must ensure that it complies with the statutory and regulatory requirements of the HUBZone Program (e.g., it must ensure that at least 35 percent of all of its employees reside within a HUBZone). The HUBZone small business Contractor or subcontractor must consider whether it can meet the requirements of this clause and Executive Order 13495 while also ensuring it meets the HUBZone Program's requirements.

(3) Nothing in this clause shall be construed to permit a Contractor or subcontractor to fail to comply with any provision of any other Executive order or law. For example, the requirements of the HUBZone Program (see FAR subpart 19.13), Executive Order 11246 (Equal Employment Opportunity), and the Vietnam Era Veterans' Readjustment Assistance Act of 1974 may conflict, in certain circumstances, with the requirements of Executive Order 13495. All applicable laws and Executive orders must be satisfied in tandem with, and if necessary prior to, the requirements of Executive Order 13495, 29 CFR part 9, and this clause.

(d)(1) The Contractor shall, not less than 30 days before completion of the Contractor's performance of services on the contract, furnish the Contracting Officer with a certified list of the names of all service employees working under this contract and its subcontracts at the time the list is submitted. The list shall also contain anniversary dates of employment of each service employee under this contract and its predecessor contracts with either the current or predecessor contractors or their subcontractors. Where changes to the workforce are made after the submission of the certified list described in this paragraph, the Contractor shall, in accordance with paragraph (e) of this clause, not less than 10 days before completion of the services on this contract, furnish the Contracting Officer with an updated certified list of the names of all service employees employed within the last month of contract performance. The updated list shall also contain anniversary dates of employment, and, where applicable, dates of separation of each service employee under the contract and its predecessor contracts with either the current or predecessor Contractors or their subcontractors.

(2) Immediately upon receipt of the certified service employee list but not before contract award, the contracting officer shall provide the certified service employee list to the successor contractor, and, if requested, to employees of the predecessor contractor or subcontractors or their authorized representatives.

(3) The Contracting Officer will direct the predecessor Contractor to provide written notice (Appendix B to 29 CFR chapter 9) to service employees of their possible right to an offer of employment with the successor contractor. Where a significant portion of the predecessor Contractor's workforce is not fluent in English, the notice shall be provided in English and the language(s) with which service employees are more familiar. The written notice shall be—

- (i) Posted in a conspicuous place at the worksite; or
- (ii) Delivered to the service employees individually. If such delivery is via e-mail, the notification must result in an electronic delivery receipt or some other reliable confirmation that the intended recipient received the notice.

(e)(1) If required in accordance with 52.222-41(n), the predecessor Contractor shall, not less than 10 days before completion of this contract, furnish the Contracting Officer a certified list of the names of all service employees working under this contract and its

subcontracts during the last month of contract performance. The list shall also contain anniversary dates of employment of each service employee under this contract and its predecessor contracts either with the current or predecessor Contractors or their subcontractors. If there are no changes to the workforce before the predecessor contract is completed, then the predecessor Contractor is not required to submit a revised list 10 days prior to completion of performance and the requirements of 52.222-41(n) are met. When there are changes to the workforce after submission of the 30-day list, the predecessor Contractor shall submit a revised certified list not less than 10 days prior to performance completion.

(2) Immediately upon receipt of the certified service employee list but not before contract award, the contracting officer shall provide the certified service employee list to the successor contractor, and, if requested, to employees of the predecessor contractor or subcontractors or their authorized representatives.

(f) The Contractor and subcontractor shall maintain the following records (regardless of format, *e.g.*, paper or electronic) of its compliance with this clause for not less than a period of three years from the date the records were created.

(1) Copies of any written offers of employment or a contemporaneous written record of any oral offers of employment, including the date, location, and attendance roster of any service employee meeting(s) at which the offers were extended, a summary of each meeting, a copy of any written notice that may have been distributed, and the names of the service employees from the predecessor contract to whom an offer was made.

(2) A copy of any record that forms the basis for any exemption claimed under this part.

(3) A copy of the service employee list provided to or received from the contracting agency.

(4) An entry on the pay records of the amount of any retroactive payment of wages or compensation under the supervision of the Administrator of the Wage and Hour Division to each service employee, the period covered by such payment, and the date of payment, and a copy of any receipt form provided by or authorized by the Wage and Hour Division. The Contractor shall also deliver a copy of the receipt to the service employee and file the original, as evidence of payment by the Contractor and receipt by the service employee, with the Administrator or an authorized representative within 10 days after payment is made.

(g) Disputes concerning the requirements of this clause shall not be subject to the general disputes clause (52.223-1) of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR part 9. Disputes within the meaning of this clause include disputes between or among any of the following: The Contractor, the contracting agency, the U.S. Department of Labor, and the service employees under the contract or its predecessor contract. The Contracting Officer will refer any service employee who wishes to file a complaint, or ask questions concerning this contract clause, to the: Branch of Government Contracts Enforcement, Wage and Hour Division, U.S. Department of Labor, 200 Constitution Avenue NW, Washington, DC 20210. Contact e-mail: displaced@dol.gov.

(h) The Contractor shall cooperate in any review or investigation by the Department of Labor into possible violations of the provisions of this clause and shall make such records requested by such official(s) available for inspection, copying, or transcription upon request.

(i) If it is determined, pursuant to regulations issued by the Secretary of Labor (Secretary), that the Contractor or its subcontractors are not in compliance with the requirements of this clause or any regulation or order of the Secretary, appropriate sanctions may be imposed and remedies invoked against the Contractor or its subcontractors, as provided in Executive Order 13495, the regulations, and relevant orders of the Secretary, or as otherwise provided by law.

(j) The Contractor shall take such action with respect to any such subcontract as may be directed by the Secretary of Labor as a means of enforcing such provisions, including the imposition of sanctions for noncompliance. However, if the Contractor, as a result of such direction, becomes involved in litigation with a subcontractor, or is threatened with such involvement, the Contractor may request that the United States, through the Secretary, enter into such litigation to protect the interests of the United States.

(k) The Contracting Officer will withhold, or cause to be withheld, from the prime Contractor under this or any other Government contract with the same prime Contractor, such sums as an authorized official of the Department of Labor requests, upon a determination by the Administrator, the Administrative Law Judge, or the Administrative Review Board, that there has been a failure to comply with the terms of this clause and that wages lost as a result of the violations are due to service employees or that other monetary relief is appropriate. If the Contracting Officer or the Administrator, upon final order of the Secretary, finds that the Contractor has failed to provide a list of the names of service employees working under the contract, the Contracting Officer may, in his or her discretion, or upon request by the Administrator, take such action as may be necessary to cause the suspension of the payment of contract funds until such time as the list is provided to the Contracting Officer.

(l) *Subcontracts.* In every subcontract over the simplified acquisition threshold entered into in order to perform services under this contract, the Contractor shall include a provision that ensures—

(1) That each subcontractor will honor the requirements of paragraphs (b) through (c) of this clause with respect to the service employees of a predecessor subcontractor or subcontractors working under this contract, as well as of a predecessor Contractor and its subcontractors;

(2) That the subcontractor will provide the Contractor with the information about the service employees of the subcontractor needed by the Contractor to comply with paragraphs (d) and (e) of this clause; and

(3) The recordkeeping requirements of paragraph (f) of this clause.

(End of clause)

**I.25 NOTIFICATION PRIOR TO ACQUIRING INFORMATION TECHNOLOGY
SYSTEMS FROM ENTITIES OWNED, DIRECTED OR SUBSIDIZED BY THE
PEOPLE'S REPUBLIC OF CHINA (JUNE 2013) (DEVIATION)**

(a) *Definitions –*

“Acquire” means procure with appropriated funds by and for the use of NASA through purchase or lease.

“Entity owned, directed or subsidized by the People’s Republic of China” means any organization incorporated under the laws of the People’s Republic of China.

“Information Technology (IT) System” means the combination of hardware components, software, and other equipment to make a system whose core purpose is to accomplish a data processing need such as the automatic acquisition, storage, analysis, evaluation, manipulation, management, movement, control, display, switching, interchange, transmission or reception of data. IT systems include ground systems in support of flight hardware. IT systems do not include—

- (i) Systems acquired by a contractor incidental to a contract;
- (ii) Imbedded information technology that is used as an integral part of the product, but the principal function of which is not the acquisition, storage, analysis, evaluation, manipulation, management, movement, control, display, switching, interchange, transmission, or reception of data or information. For example, HVAC (heating, ventilation, and air conditioning) equipment such as thermostats or temperature control devices, and medical equipment where information technology is integral to its operation, are not information technology systems;
- (iii) Services in support of IT systems, such as help desk services; or
- (iv) Flight hardware, which includes aircraft, spacecraft, artificial satellites, launch vehicles, balloon systems, sounding rockets, on-board instrument and technology demonstration systems, and equipment operated on the International Space Station; as well as prototypes, and engineering or brass boards created and used to test, troubleshoot, and refine air- and spacecraft hardware, software and procedures.

(b) Section 516 of the Consolidated and Further Continuing Appropriation Act, 2013 (Pub. L. 113-6), requires NASA’s Office of the Chief Information Officer (OCIO) to assess the risk of cyber-espionage or sabotage of an information technology (IT) system that is produced, manufactured, or assembled by an entity owned, directed or subsidized by the People’s Republic of China (PRC). The Government retains the right to reject any IT system tendered for acceptance under this Contract, without any further recourse by, or explanation to, the Contractor, if the Government determines the IT system, in whole or in part, presents an unacceptable risk to national security.

(c) The Contractor shall obtain the approval of the Contracting Officer before acquiring any IT system(s) from entities owned, directed or subsidized by the People’s Republic of China under this contract. Any Contractor request to use such items shall include adequate information for Government evaluation of the request, including—

- (1) A brief description of the item(s); and
- (2) Vendor/manufacture’s company name and address;

(d) The Contracting Officer will provide the information referenced in paragraph (c) to the NASA Office of the Chief Information Officer (OCIO) which will assess the risk of cyber-espionage or sabotage and make a determination if the acquisition of such system is in the national interest. Only items so approved shall be provided under the contract.

| (End of clause)

[END OF SECTION]

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE		PAGE OF PAGES 1 26	
2. AMENDMENT/MODIFICATION NO. 000013		3. EFFECTIVE DATE See Block 16C		5. PROJECT NO. (If applicable)	
6. ISSUED BY NASA/Johnson Space Center Attn: Jon Prihoda/BH2 2101 NASA Parkway Houston TX 77058-3696		CODE JSC		7. ADMINISTERED BY (If other than Item 6) NASA/Johnson Space Center Attn: Lawrence Miller/BH2 281.483.3916 lawrence.l.miller@nasa.gov 2101 NASA Parkway Houston TX 77058-3696	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) JACOBS 600 WILLIAM NORTHERN BLVD TULLAHOMA TN 37388-4729		9A. AMENDMENT OF SOLICITATION NO. <input checked="" type="checkbox"/>		9B. DATED (SEE ITEM 11)	
CODE 07486		FACILITY CODE		10A. MODIFICATION OF CONTRACT/ORDER NO. NNJ13HA01C	
				10B. DATED (SEE ITEM 13) 02/08/2013	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended, ☐ is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b)
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) CHANGES - COST-REIMBURSEMENT (FAR 52.243-2) (ALT II)

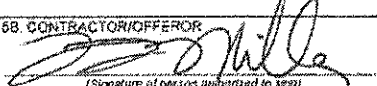
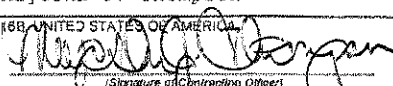
E. IMPORTANT: Contractor ☐ is not, ☒ is required to sign this document and return _____ 1 _____ copies to the issuing office

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible)

The purpose of Modification 13 is to update Section J-11 and Section J-25 of the contract. Therefore, Section J-11 and Section J-25 of NNJ13HA01C are hereby deleted, and replaced with the attached copies of Section J-11 and Section J-25. The changes have been denoted by a vertical bar mark along the left side of the document in Section J-11, and denoted by being underlined in Section J-25. All other terms and conditions remain unchanged.

Payment Terms:
Net 30 days

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print) Lon F. Miller / Sr. Vice President and General Manager		15B. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Miyoshi J. Thompson	
16B. CONTRACTOR/OFFEROR  (Signature of person authorized to sign)	15C. DATE SIGNED 8/20/13	16B. UNITED STATES OF AMERICA  (Signature of Contracting Officer)	15C. DATE SIGNED 8/20/13

NSN 7540-01-152-8070
Previous edition unusable

STANDARD FORM 30 (REV 10-63)
Prescribed by GSA
FAR (48 CFR) 53.243

JSC Engineering, Technology and Science Contract (JETS)

Award Fee Plan

Attachment J-11

Contract No.: NNJ13HA01C

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List of Acronyms

Acronym	Definition
CAP	Corrective Action Plan
CO	Contracting Officer
COTR	Contracting Officer's Technical Representative
FAR	Federal Acquisition Regulation
FDO	Fee Determination Official
JETS	JSC Engineering, Technology, and Science Contract
JSC	Johnson Space Center
NASA	National Aeronautics and Space Administration
PEB	Performance Evaluation Board
PEB-IT	Performance Evaluation Board Integration Team
R&D	Research and Development

1.0 Introduction

In accordance with the provisions of the Federal Acquisition Regulation (FAR) and the NASA/JSC policies, an Award Fee Evaluation Plan is established to evaluate contractor performance and determine the award fee to be earned and payable under this contract. The award fee evaluation process will include both objective and subjective assessments of contractor performance.

2.0 Award Fee Provisions

An award fee provision has been established to motivate the contractor to strive for excellence in managerial, technical, schedule, and cost performance. For each period, the contractor may earn award fee from a minimum of zero dollars to the maximum available award fee shown in Appendix 2, Award Fee Distribution. The contractor will be informed of any changes in evaluation factors or weightings prior to the affected award fee period.

Each award fee evaluation is considered to be final. Any unearned award is lost and cannot be moved into subsequent fee evaluation periods. An overall performance evaluation and fee determination of zero may be made for any evaluation period when there is a major breach of safety or security as defined in NFS 1852.223-75, Major Breach of Safety or Security.

The Government shall pay fee to the contractor in accordance with Clause G.2 entitled, "Award Fee for Service Contracts."

2.1 Performance Evaluation Board Integration Team (PEB-IT)

The Performance Evaluation Board Integration Team (PEB-IT) will be composed of the contract management team, including the Contracting Officer (CO) and Contracting Officer's Technical Representative (COTR). The COTR will be the focal point for the accumulation and development of award fee evaluation technical reports, reviews, and presentations. The CO will be the focal point for contractor performance evaluations relating to contract management. The PEB-IT will evaluate contractor performance using the evaluation factors listed in Section 2.5 – Evaluation Criteria of this plan.

The PEB-IT will provide the contractor interim performance evaluations every three months. The intent of these interim evaluations is to discuss specific areas where future performance improvement is necessary.

The PEB-IT will prepare a six month evaluation report for review by the PEB for each evaluation period. This report will include a recommended adjective rating and numerical score representing the contractor's performance for the period evaluated.

2.2 Performance Evaluation Board (PEB)

The PEB will be appointed by the Fee Determination Official (FDO) or his designee. A PEB, comprised of selected technical and contract management personnel of NASA, will evaluate the contractor's performance after each evaluation period to determine whether, and to what extent, the contractor's performance during the evaluation period is deserving of the payment of award fee. At the end of each evaluation period, the PEB will prepare a summary of the evaluations for

review by the FDO. This summary report will include a recommended adjective rating and numerical score representing the contractor's performance for the period evaluated.

2.3 Fee Determination Official (FDO)

The FDO, a senior NASA official, will determine the contractor's performance score in accordance with the procedures set forth below. After considering available and pertinent information and recommendations, the FDO will make a performance determination for each period in accordance with the provisions of this plan and of Clause B.4 entitled "Estimated Cost and Award Fee."

2.4 Evaluation Procedures

Award fee evaluation periods shall be six months in length. Contractor performance will be assessed at the midpoint and at the end of each evaluation period. The CO may provide contractor performance feedback to the contractor at any time during the evaluation period.

The Government may unilaterally identify areas of special emphasis and prioritize their relative importance. These areas of special emphasis will be communicated to the contractor in writing, prior to the beginning of the applicable evaluation period. The contractor may also provide recommended objective performance metrics, weightings, and specific areas of emphasis for consideration by the Government to be used for the evaluation period no later than 30 days prior to the start of each award fee evaluation period.

Objective performance metrics and specific areas of emphasis may be established by the Government and communicated to the contractor at least 15 calendar days, prior to the start of each evaluation period. The Government may unilaterally change the evaluation criteria and weightings prior to the beginning of an award fee evaluation period. Cost performance and small business performance weightings shall not be less than 25% and 10%, respectively.

The contractor shall provide a self-evaluation to the CO within five days after, the end of a performance period.

PEB findings and fee recommendations will be shared with the contractor to allow the contractor the opportunity to take exception to or accept the PEB evaluation findings. The contractor shall provide a written response to the CO within five days stating, acceptance or indicating a need for further FDO consideration. If the contractor takes exception to the PEB findings, such exception shall be stated in writing and be provided to the CO within five working days from the date that the PEB findings were provided to the contractor.

The FDO performance determination will be considered final if no contractor response is received within the five working day period stated above.

The contractor shall submit to the CO a Corrective Action Plan (CAP) for any major weaknesses noted in the PEB report or adverse objective performance metrics identified by the Government as part of the evaluation. The CAP shall be submitted within 15 working days after the final performance determination for each evaluation period. Corrective actions will be closed by concurrence from the CO and the COTR.

2.5 Evaluation Criteria

Contractor performance evaluations will be based upon objective and subjective assessments of contractor performance in the areas of technical and management, cost, and small business performance. Objective performance metrics will be developed and used together with subjective award fee evaluations to arrive at an overall recommended numerical and adjective rating for the period.

In order to earn any award fee, the contractor must receive a numerical rating higher than 49. Appendix 1, Evaluation Definitions, provides the performance level definition adjective ratings and corresponding numerical scores that will be used in performance evaluations.

Evaluation Criteria Weighting

1. Technical and Management Performance	55%
Quality of Work	
Schedule Performance	
Program Management	
Safety and Health	
Technology, Innovation, and Process Improvements	
2. External Customer Development*	10%
3. Cost (Objective Metric)	25%
4. Small Business Goals (Objective Metric)	10%

** Appendix 3 Award Fee Measurement and Criteria for External Customer Commitment provides Jacobs' proposed allocations of the evaluation criteria for External Customer Development.*

2.6 Maximum Available Award Fee Pool

The Award Fee Schedule (see Appendix 2) will reflect the total available award fee for each evaluation period. The total available award fee for each evaluation period shall consist of the sum of the period's available award fee for ordered products and services (by Task Order), including the distributed costs of section 1.

2.7 Provisional Payment of Award Fee

Pending a determination of the amount of award fee earned for periodic evaluations, a portion of the available award fee for that period will be provisionally paid to the Contractor on a monthly basis, in accordance with contract Clause G.2 entitled "Award Fee for Service Contracts."

APPENDIX 1

EVALUATION DEFINITIONS

ADJECTIVE RATING	RANGE OF POINTS	DESCRIPTION
Excellent	100 – 91	Of exceptional merit; exemplary performance in a timely, efficient, and economical manner; very minor (if any) deficiencies with no adverse effect on overall performance.
Very Good	90 – 76	Very effective performance, fully responsive to contract; contract requirements accomplished in a timely, efficient, and economical manner for the most part; only minor deficiencies.
Good	75 – 51	Effective performance; fully responsive to contract requirements; reportable deficiencies, but with little identifiable effect on overall performance.
Satisfactory	50	Meets or slightly exceeds minimum acceptable standards; adequate results; reportable deficiencies with identifiable, but not substantial, effects on overall performance.
Unsatisfactory	Less than 50	Does not meet minimum acceptable standards in one or more areas; remedial action required in one or more areas; deficiencies in one or more areas, which adversely affect overall performance. No award fee shall be paid for an unsatisfactory rating

APPENDIX 2

AWARD FEE DISTRIBUTION

Period		Max. Avail. Award Fee	Earned Award Fee
1	5/1/13 to 10/31/13 <u>5/1/13 to 12/31/13</u>	TBD (b) (4)	TBD
2	11/1/13 to 4/30/14 <u>1/1/14 to 6/30/14</u>	TBD	TBD
3	5/1/14 to 10/31/14 <u>7/1/14 to 12/31/14</u>	TBD	TBD
4	11/1/14 to 4/30/15 <u>1/1/15 to 6/30/15</u>	TBD	TBD
5	5/1/15 to 10/31/15 <u>7/1/15 to 12/31/15</u>	TBD	TBD
6	11/1/15 to 4/30/16 <u>1/1/16 to 6/30/16</u>	TBD	TBD
7	5/1/16 to 10/31/16 <u>7/1/16 to 12/31/16</u>	TBD	TBD
8	11/1/16 to 4/30/17 <u>1/1/17 to 6/30/17</u>	TBD	TBD
9	5/1/17 to 10/31/17 <u>7/1/17 to 12/31/17</u>	TBD	TBD
10*	11/1/17 to 4/30/18 <u>1/1/18 to 6/30/18</u>	TBD	TBD
11*	5/1/18 to 10/31/18 <u>7/1/18 to 12/31/18</u>	TBD	TBD
12*	11/1/18 to 4/30/19 <u>1/1/19 to 6/30/19</u>	TBD	TBD
13*	5/1/19 to 10/31/19 <u>7/1/19 to 12/31/19</u>	TBD	TBD
14*	11/1/19 to 4/30/20 <u>1/1/20 to 6/30/20</u>	TBD	TBD
15*	5/1/20 to 10/31/20 <u>7/1/20 to 12/31/20</u>	TBD	TBD
16*	11/1/20 to 4/30/21 <u>1/1/21 to 6/30/21</u>	TBD	TBD
17*	5/1/21 to 10/31/21 <u>7/1/21 to 12/31/21</u>	TBD	TBD
18*	11/1/21 to 4/30/22 <u>1/1/22 to 4/30/22</u>	TBD	TBD

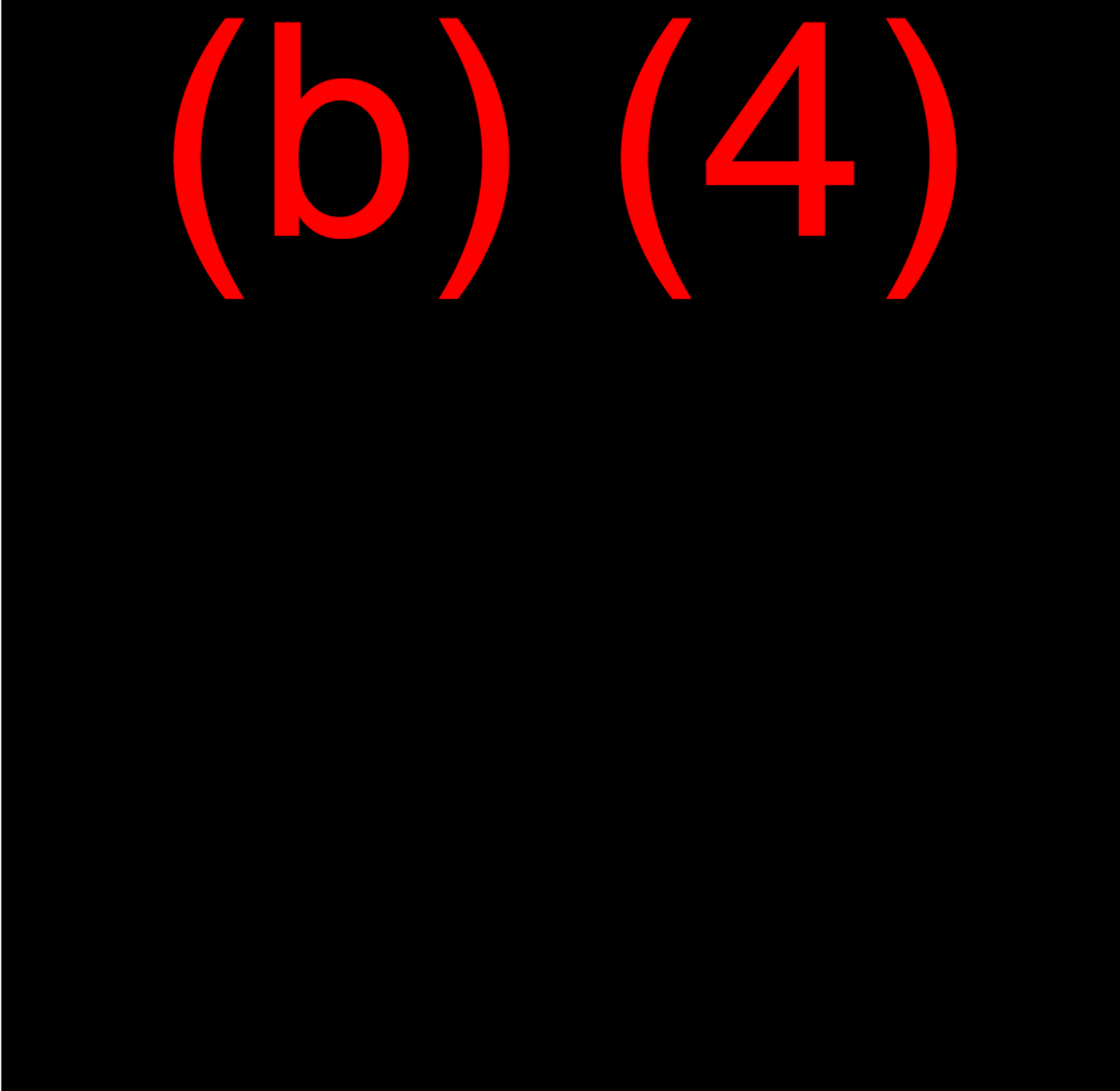
The maximum award fee available for each period is based upon the condition that NASA authorizes the dollar amount of work as identified in B.4 Estimated Cost and Award Fee. Approximately sixty days before each Award Fee period end-date, JETS and NASA shall confirm that the Award Fee pool is appropriate for the work authorized for the current Award Fee Period and shall adjust the Award Fee allocations as appropriate. JETS shall maintain a log of work authorized during the Award Fee period and shall submit that log to JSC approximately sixty days prior to award fee evaluation for review.

Note: These amounts are based upon current work authorized as of (FILL IN DATE). It is anticipated that as additional work is added and/or deleted, then the out periods will be adjusted at or near the end of the award fee period.

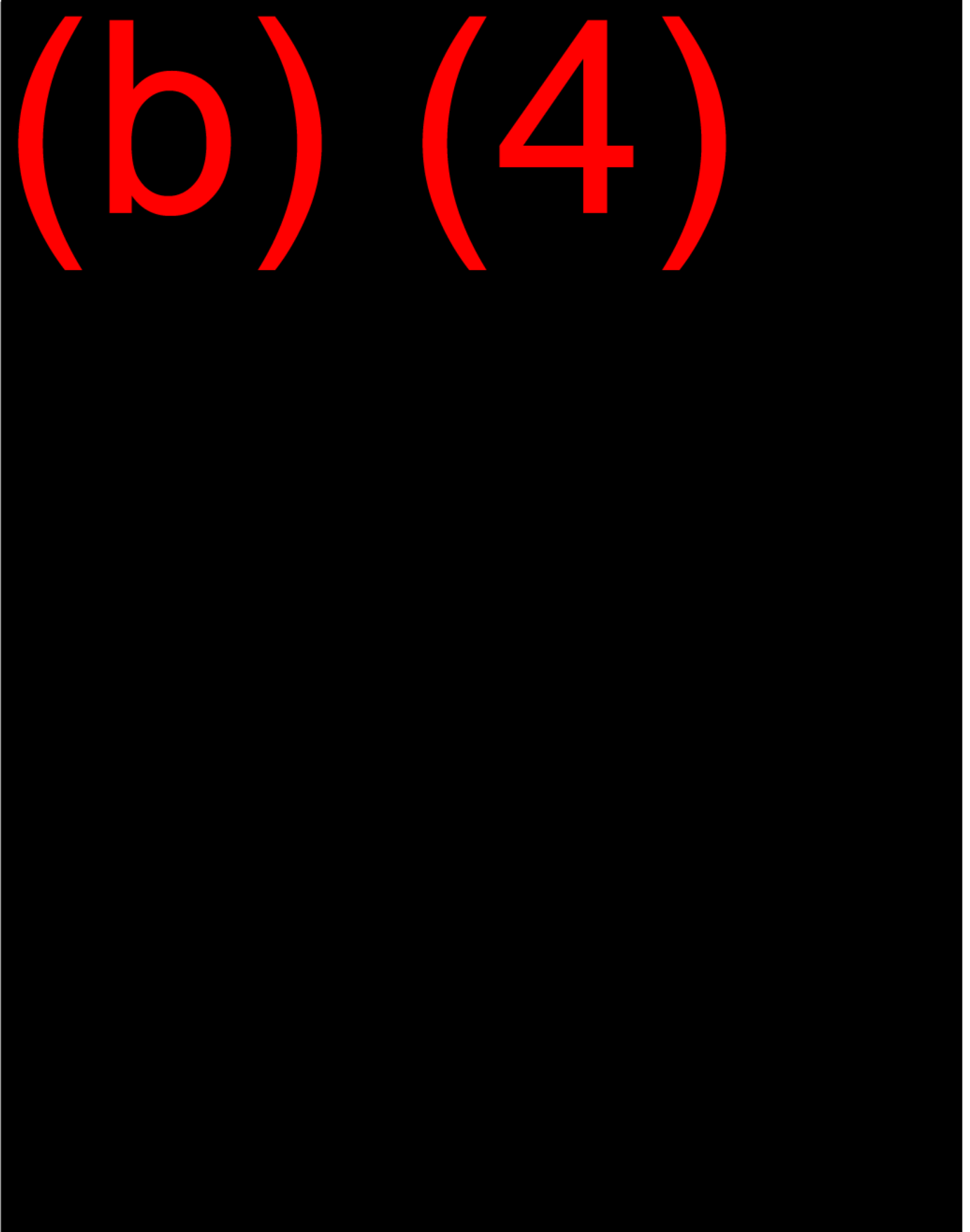
* These periods are only applicable if Option 1 and 2 are exercised.

APPENDIX 3
AWARD FEE MEASUREMENT AND CRITERIA
FOR EXTERNAL CUSTOMER COMMITMENTS

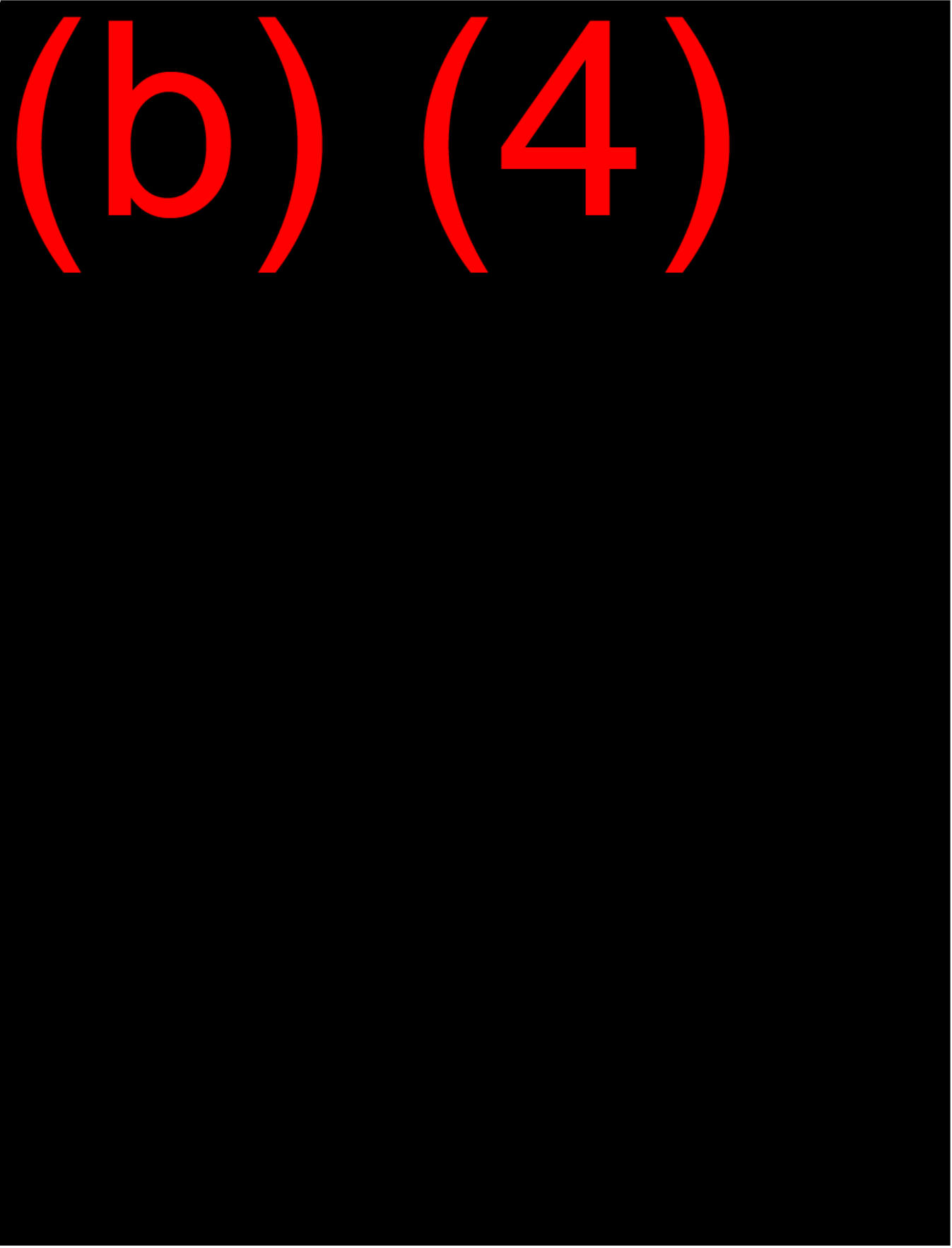
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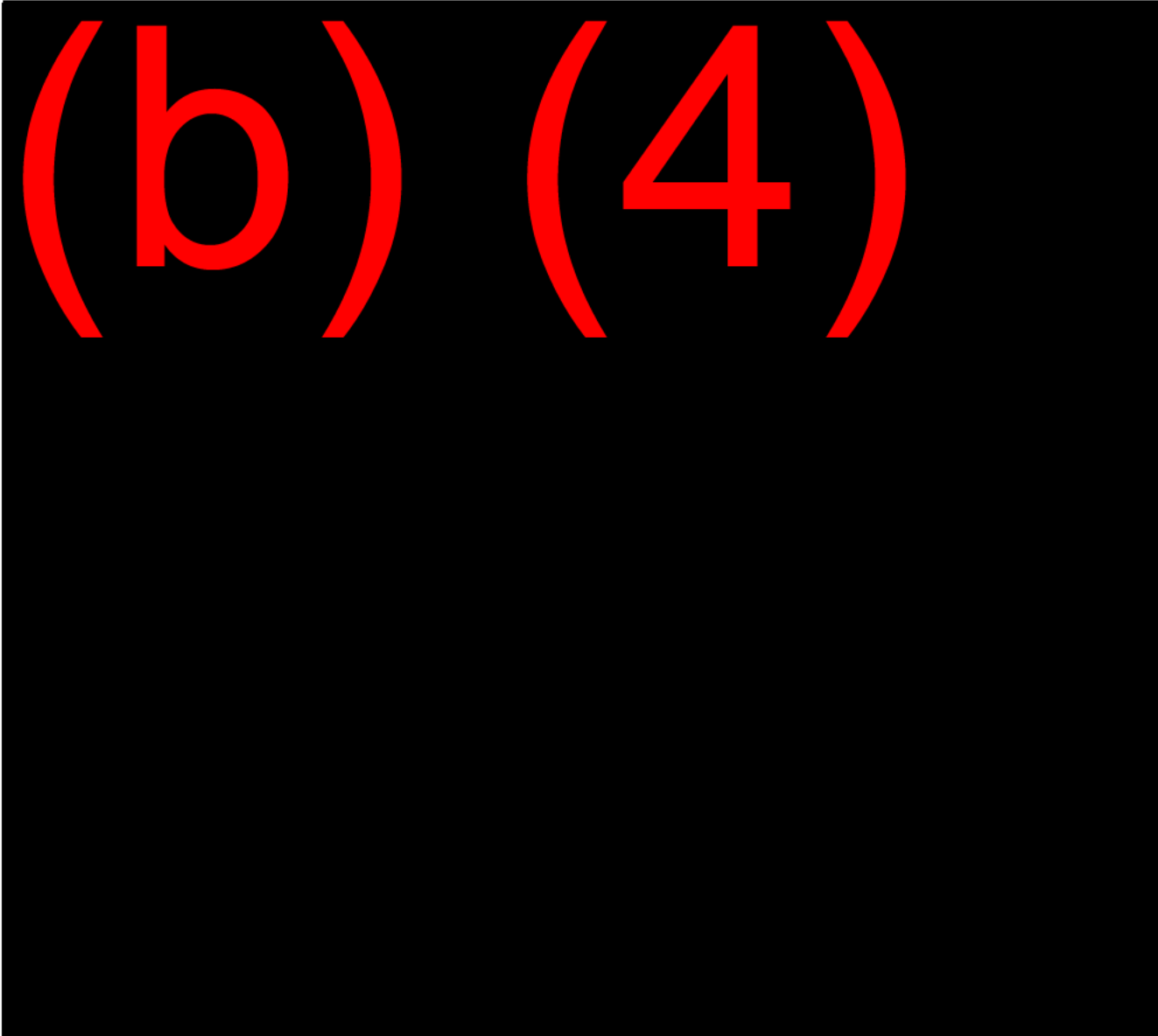


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JSC Engineering, Technology, and Science Contract

EA/KA Facility Information

ATTACHMENT J–25

EA/KA Facility Information

EA/KA Facility Information contains applicable information related to laboratories and facilities associated with JETS requirements. The contractor may be directed through Task Orders to provide maintenance, operations, testing, or production for and with the dedicated laboratory equipment in these and other facilities.

Definitions

Operational Readiness definitions are included here because they deviate from the previously accepted definitions. They are applicable to the JETS contract M&O effort only. The expected readiness state at the beginning of the contract is given in the attached table.

1. Mothball Operational Readiness

Facility equipment is preserved and protected, but may not be in operational configuration

- a. System may not be operable
- b. Preventive maintenance is at a minimal level necessary only to preserve and protect the assets.
- c. Critical skills are not available
- d. More than 6 months to bring to Full Operational Readiness configuration

2. Standby Operational Readiness

- a. System is fully operable
- b. Preventive maintenance is at a moderate level.
- c. Many systems will require activity before use for example servicing, instrumentation calibration, readiness inspections or tests and emergency system certification.
- d. Critical skills are available, but assigned elsewhere
- e. Less than 6 months to bring to Full Operational Readiness configuration

3. Full Operational Readiness

- a. System is fully operable
- b. Preventive maintenance is at a nominal level
- c. Appropriate systems have been validated as ready
- d. Critical skills are available and assigned to facility

4. In Production

- a. System is fully operable
- b. Preventive maintenance is at a nominal level
- c. All systems have been validated as ready
- d. Critical skills are available and assigned to facility
- e. The facility is in production at the level specified

5. NASA Managed Labs.

- a. Contractor provides specified M&O tasks
- b. NASA maintains responsibility for overall operational readiness of lab or facility.

Buildings and Grounds are not part of this maintenance effort for the facilities attached. Refer to the EA/JA Memorandum of Agreement, located in the technical library, for specific responsibility descriptions.

Division	Facility Name	Bldg	Room Nos	Description	Expected Contract Start Rediness Level
EA3	Flight Hardware Processing and Development Laboratory	36	1014	Provides capability for development, test, evaluation, maintenance and repair of all EA3 controlled and development hardware.	3
EA3	Integrated Testing Laboratory	220	All	Provides capability for development, assembly, test and evaluation on EA3 development flight and nonflight hardware.	4
EC	Chamber A - High Vacuum/Thermal/ Human-Rated Test Complex	32	Highbay	Configured for deep space thermal/vacuum and human rated testing of large test articles including flight hardware. Facility currently is being modified to support James Web Space Telescope test program. Following JWST testing the facility will be available for thermal/vacuum testing of major telescope or satellite systems requiring a thermal sink of 25K.	3
EC	Chamber B - High Vacuum/Thermal/ Human-Rated Test Complex	32	Highbay	Configured for deep space thermal/vacuum and solar human rated testing of large test articles including flight hardware.	3
EC	Crew Survival Lab	7	336	Configured for SSP Crew Escape Equipment hardware development & equivalent ISS crew protection equipment development	3
EC	CTSD Analysis Laboratory	7	2023, 2004, 3001	Investigates new materials required for GFE projects. Manufactures soft goods for flight and develops prototype soft goods. Investigates cold stowage hardware for flight and test.	3
EC	ECLSS and Habitability Laboratory	7	1032, 1300, 1302	The laboratory develops ECLSS technologies for air and water in support of Exploration Technology Development. These laboratories also support flight anomaly resolution for ISS ECLSS hardware.	3
EC	EVA & IVA Tools Laboratory	7	2007	Provides EVA Tool preparation and maintenance for GFE Flight Tools and equipment for the ISS.	3
EC	EVA Suit Development Laboratory	7, 34	B7:2006; B34:All; B7:336	Will be needed to support unmanned certification and acceptance testing used for hardware development and maintenance activities for PLSS and Pressure Garment for future EVA suits. Provides test beds for requirements development, technology maturation, and design development. Also used to evaluate surface activities for moon and Mars of the Portable Life Support System for the ESMD Surface Suits.	3

J-25 - EA KA Facility Info Part 2

Division	Facility Name	Bldg	Room Nos	Description	Expected Contract Start Rediness Level
EC	Flight EVA Suit Laboratory	7	335AA, 348, 2020, 2027	Used for EMU chamber preparations, anomaly resolution, hardware test and evaluation, and Metox regeneration. Includes Class 10,000 clean room and oxygen testing capabilities. Also supports oxygen system technology development.	3
EC	ISS Active Thermal Control System Ammonia Test Complex	360	Highbay	Currently houses 'fleet leader' External Active Thermal Control System (EATCS) Life Test article (test cell) and contains ISS EACTS Test Bed. ISS needs through 2020.	3
EC	Specialized Chambers Vacuum/Thermal/Environmental Test Complex	33	Highbay	Contains 11 Chambers of varying thermal & thermal/vacuum environment capabilities configured for testing hardware ranging from flight (qualification) to development hardware in support of Center GFE activities, including ESMD hardware.	3
EC	Vacuum Chamber Complex	7	Highbay, 2010	Contains 6 vacuum chambers utilized for Portable Life Support, Space Suit, and environmental control technology development and testing. Core capability that supports operational development and advanced programs and projects. Will be utilized for closed loop testing of advanced Life Support Systems. Provides manned test operations utilizing ISS airlock systems.	3
EG	Flight Sciences Laboratory	16/16A	16A/1002, 1004, 1123, 1169A, 2115, 2115A, 1153, 1153A, 16/156A, 156D, 156E	Design and analysis of autonomous GN&C systems. Design and analysis of missions, operations concepts, flight vehicle performance requirements, non-real-time trajectories, and preliminary GN&C algorithms. Design and analysis of integrated GN&C systems for multiple spacecraft performing simultaneous operations including ISS service vehicles and the Crew Exploration Vehicle. Development of high-fidelity models and simulations used for integrated GN&C design. Design and analysis of flow field environments and vehicle aerodynamics and aerothermodynamics and used to analyze parachute aerodynamics	5

Division	Facility Name	Bldg	Room Nos	Description	Expected Contract Start Rediness Level
EP	Battery Systems Test Facility	354	ALL	Provides design verification, technology and safety evaluation, performance, and flight certification of batteries and battery systems used for manned spacecraft and crew systems. Provides operational support for flight battery systems. Also provides thermal and vacuum environments for general test articles.	3
EP	Electrical Power Systems Test Facility	361	All	Perform Electrical Power Distribution & Control (EPD&C) development, studies, and power quality testing.	3
EP	ESTA Technical Support Areas	350,356B,359	B350:124, 125, 131, 140; B356B:All; B359:All	Various technical support areas, including Chemistry and gas Laboratory, Fabrication shop, Components Processing Facility, DACS Development Lab, and Warehouse/restricted storage used for test support throughout ESTA.	3
EP	Fluid Systems Test Facility	356A, 356E	All	Used for high pressure fluid systems testing, fuel cell component and system DDT&E and RCS component DDT&E.	3
EP	Pyrotechnics Lab	352	ALL	Supports development, qualification, and anomaly testing of numerous pyrotechnic devices and systems used on flight vehicles (Shuttle, ISS, CEV, JPL probes, etc.). Includes NSI, NSD, Boosters, SMDC, frangible nuts, guilotine devices, pyro actuators.	5
EP	Resource Conversion Test Facility	353	ALL	Primary test facility in support of in-situ resource utilization (ISRU) and RCS Component DDT&E.	2
EP	Thermal Vacuum Test Facility	351	ALL	Provides capability to subject high energy (power, reactants, propellants) test articles to combine thermal and vacuum conditions which simulate planetary and space environments.	2
ER	Active Response Gravity Offload System	9NE	Highbay	An electro-mechanical system that provides constant vertical offload during dynamic disturbance of the payload. Horizontal motions are automatically tracked to keep the vertical offload mechanism directly above the payload. ARGOS will be human rated to allow the evaluation of crew equipment in lunar and Martian gravity.	4

Division	Facility Name	Bldg	Room Nos	Description	Expected Contract Start Rediness Level
ER	Countermeasures Development Lab	36	1005, 1009A, 1009B	The laboratory is a general lab used for CHeCS CMS GFE hardware sustaining engineering. This lab supports the design, development, assembly, and maintenance of the TVIS, ARED, IRED, CEVIS and other CMS hardware. The lab houses the IRED, TVIS, and ARED life cycle test stands and ARED class III equipment, and is currently running a life cycle test on the ARED loading and VIS systems.	4
ER	Dexterous Manipulator Testbed (DMT)	9NE	Highbay	Two six-joint hydraulic manipulators capable of precisely positioning small payloads. Integrated with a model following, closed loop control system, the DMT is capable of emulating any motion within its rate and travel limits as well as the contact dynamics associated with installing/removing payloads into/from receptacles. The DMT has been used as a Special Purpose Dexterous Manipulator (SPDM) training facility.	4
ER	Dexterous Robotics Laboratory (DRL)	9NE; 32A	9NE:1113; 32:2009, 2044	Laboratory for development of advanced dexterous robotic systems and associated applications. Includes capabilities for remote control of systems across time and space and advanced dexterous machines for handling.	4
ER	Electronics Development Lab	9NE	2110	Provides electronic design and fabrication support for division facilities and technology development projects.	3
ER	Flight Projects Development Lab	9S	1003	Controlled access workspace for division flight GFE projects.	3
ER	Kedalion	16	1169	Kedalion is an engineering analysis environment for the NASA Project Orion Flight Software Team to do insight and oversight functions of the prime contractor team. It is comprised of workstations, servers, Honeywell Flight Control Modules, a Honeywell VMC test bench that supports real-time hardware in the loop testing. It includes the full complement of the Orion SW development and testing tool suite, each tool being multi-licensed for group support. Kedalion also includes a three axis rate table, GPS signal generator, and Time-Triggered Gigabit Ethernet demonstration system.	4

Division	Facility Name	Bldg	Room Nos	Description	Expected Contract Start Rediness Level
ER	Mechanical Development Lab	9NE	1115	Provides mechanical fabrication support for division facilities and technology development projects.	4
ER	Perception Lab	9NE	3112	Laboratory for development of advanced perception, machine vision, and sensing capabilities.	4
ER	Robotic Motion Platform (RMP)	9NE	Highbay, 3114	A 57-foot long, seven joint, hydraulic manipulator situated on a base ~15 feet above a 6,860 square foot air bearing floor, capable of manipulating a 500 lb payload within a ~250,000 cubic foot volume. Integrated with a model following control system, the RMP is capable of emulating any motion within its rate and travel limits. An integrated force/torque sensor allows limited closed loop operations. The RMP has been used as a Space Station Remote Manipulator System (SSRMS) training facility.	4
ER	Rover Development Laboratory	9NE	1114, Highbay	This lab is used for the design, development, assembly, and maintenance of crew mobility platforms	4
ER	Simulated Robotics Workstation Lab	9NE	1114	Provides support for the design and modification of PCS GUI pages and overlays and performs PCS risk mitigation testing. Provides overlay inputs to training facilities and maintains an SRWS in the NBL for training.	4
ER	Six Degree of Freedom Dynamic Test System (SDTS)	9NE	Highbay	A hydraulically driven Stewart platform capable of manipulating a 3,500 lb payload within a ~700 cubic foot volume. Integrated with a model following, closed loop control system, the SDTS is capable of emulating any motion within its rate and travel limits as well as the relative dynamics between two bodies as they are mated together.	4

Division	Facility Name	Bldg	Room Nos	Description	Expected Contract Start Rediness Level
ER	Systems Engineering Simulator (SES)	16; 15	16:135D A, 135DB, 179A, 290, 1024, 1040, 1050, 2005, Highbay; 15:201, 231	Provides on-orbit simulation used for engineering analysis & crew training particularly in the areas of rendezvous, proximity operations, manipulators, & dynamic interactions between systems. Ascent Entry simulator used for engineering analysis of shuttle ascent and entry scenarios. Manipulators, rovers, and dynamic interactions between systems are also included. Supporting infrastructure includes the development and maintenance of the Trick simulation architecture, robotics based Trick simulations, as well as data fusion visualization and analysis.	4
ER	Virtual Reality Lab	9NE	2116	Provides virtual reality immersive environment for EVA training and engineering evaluation.	4
ES	Atmospheric Re-entry Materials and Structures Evaluation Facility (ARMSEF) or Arc-Jet	222	All	Provides capability to perform aerothermal heating environment tests representative of the convective heating conditions experienced by spacecraft during entry. Required for the screening, development, & certification of human spacecraft thermal protection. Includes the capability to test CO2 Martian atmosphere at high enthalpies - a capability matched by no other facility in the world.	2
ES	General Vibration Lab (GVL)	49	1001, 1003	Lab provides vibration testing (devel, qual, accept, & proto-flt) from 5 to 2000 Hz with up to 40,000 lbf. in all three orthogonal axes for any one shaker. GVL has 5 semi-permanent test beds - a 40,000 lbf horizontal, a 40,000 lbf vertical, a 18,000 lbf vertical, a 20,000 lbf horizontal, & an 8000 lbf Human Rated Test Bed. GVL also has 1 reconfigurable test bed using 2 - 4000 lbf which will also support human rated testing. Additionally, GVL also has 6 - 10,000 lbf shakers for specific usage. High speed video monitoring available upon request. Human Rated Vibration Testing capability to be online in Summer of 2010.	4

Division	Facility Name	Bldg	Room Nos	Description	Expected Contract Start Rediness Level
ES	<u>Manufacturing Facility (managed by Sierra Lobo, Inc. under the Engineering Fabrication Services Contract)</u> <u>[Only for the period of August 19, 2013 through February 28, 2014]</u>	9S & 10	ALL	<u>Provides resources necessary to produce flight, ground support, & prototype hardware. Expertise in precision machining, sheet metal fabrication, welding, cleaning, coatings, soft goods, metal finishing, heat treating, models & plastics, & assembly.</u>	N/A
ES	Materials Evaluation Labs (MEL)	13	146, 148, 258, 260, 266, 1006, 2000	Provides analytical capabilities used in evaluation of existing spaceflight hardware as well as in advanced materials development. Failure analyses and anomaly resolutions are the main applications, with tests that include metallographic work, material properties testing, microscopy, environmental testing, and analytical chemistry testing	4
ES	NDE Laboratory	9S	1004, 1005, 1000AA	Provides nondestructive evaluation (NDE) techniques for analyzing fabricated hardware; such as honeycomb panels, newly machined metal parts, for GFE and other spaceflight hardware. Methods include ultrasonic, radiographic, eddy current, acoustic emission, etc.	4
ES	Radiant Heat Test Facility (RHTF)	260	All	Provides capability of performing multizone, high-temperature, radiant-heat testing of large spacecraft thermal protection systems & associated structures in a controlled pressure environment to simulate reentry thermal profiles, thermal gradient, & pressure.	4
ES	Sonic Fatigue Lab (SFL)	49	1004, 1004A	Lab provided vibro-acoustic structural testing (165 dB) of components & smaller sub-systems in a reverberant chamber in both high & low frequencies. Lab also has Progressive Wave Tube (170 dB) & Acoustic Calibration Tube as well. Test article (such as panels) wall mounting option available in reverberant chamber wall. Continuous operation provided by air compressors.	4

Division	Facility Name	Bldg	Room Nos	Description	Expected Contract Start Rediness Level
ES	Spacecraft Acoustic Lab (SAL)	49	1200	Lab provided large-scale, vibro-acoustic structural testing (160+ dB) in a reverberant chamber in both high & low frequencies. It was specifically designed to test large structures associated with such programs as Apollo, Skylab, Space Shuttle, and International Space Station. Test article (such as panels) wall mounting option available in reverberant chamber wall. Continuous operation provided by air compressors.	4
ES	Spacecraft Vibration Lab (SVL)	49	1300	Facility provides structural dynamic (high-force) testing (devel, qual, accept, & proto-flt) of hardware from small spacecraft components to large structural assemblies including entire vehicles. Multi-level, access platforms to test articles available.	4
ES	Structural Test Laboratory (STL)	13	1000	Provides structural static and fatigue load testing to support space flight programs. Tests range from mechanical properties testing of materials to full-scale verification testing of payloads and spacecraft structures.	4
EV	Advanced Electromagnetic Systems Laboratory (AEMSL)	14	210, 212	Provide support for the development and testing of advanced technology antennas, microwave circuits, and RF systems/components (microwave and magnetic), and evaluation of advanced technology electromagnetic systems.	3
EV	Advanced Radiation Instrumentation Laboratory (ARI)	44	131	Provides design, prototyping, testing, calibration and troubleshooting of radiation instrumentation for both flight and ground based applications, as well as proof of concepts, and general laboratory operations. Also will be used for Acceptance and Certification of Radiation Instrumentation Flight Hardware. Once radiation instrumentation moves into sustaining, portions of the lab will be assigned to non-radiation tasks.	4
EV	Advanced RF Technology	14	133B, 133C	Provides support for the design, development, test and evaluation of RF systems/components for space flight communications and tracking systems.	3

J-25 - EA KA Facility Info Part 2

Division	Facility Name	Bldg	Room Nos	Description	Expected Contract Start Rediness Level
EV	Antenna Test Facility (ATF) w/ Anechoic Chamber	14	B14: 133, 200, 302, 131, 132	Includes the Anechoic Chamber - Used to evaluate and certify full-scale spacecraft communication antenna and system performance in electromagnetic environments conditioned to simulate free space.	4
EV	Audio Development Laboratory (ADL)	44	143A, 143B, 144, 144C	Design, Development, Test, Evaluation, and Support. Core Audio Systems testing capability at JSC for institution and onsite hardware. Supports operational, development and advanced programs & projects. Thermal Chamber is used for engineering evaluation thermal testing of flight and non-flight avionics hardware and acceptance and qualification thermal testing of flight avionics hardware.	5
EV	Avionics Development Laboratory	44	237, 237A, 243	Provides Design, Development, Test, Evaluation, and Support for R&D and CLASS III hardware.	5
EV	Biomedical Engineering for Exploration Space Technology (BEEST) Facility	14	132C	Biomedical Engineering for Exploration Space Technology Laboratory (BEEST) develops new medical technology for the prevention of space induced muscle atrophy and bone loss, tissue welding for traumatic wound closure, biofilm eradication, and more. Joint work between EV/SK.	3
EV	Command & Data Handling (C&DH) Systems Laboratory	44	132	Provides capability for the design, development, test, evaluation, and verification of digital communication signal processing equipment, command system equipment, source & channel coding equipment, and general instrumentation.	5
EV	Communication Systems Simulation Lab (CSSL)	16	223B	Supports the computer analysis and modeling of radar and communication systems, subsystems, components and parts.	4
EV	Computational Electromagnetics Laboratory (CEM)	14	130	Used to run full-wave, frequency domain & computationally intensive electromagnetic simulations	4
EV	Electromagnetic Interference/Compatibility (EMC) Test Facility	14	1000, 133D	Used to certify and evaluate flight hardware, ground support equipment, and COTS equipment for Station and future programs for radiated and conducted emissions and susceptibility.	4

Division	Facility Name	Bldg	Room Nos	Description	Expected Contract Start Rediness Level
EV	Electromagnetic Systems Flight Hardware Laboratory	14	301B	Currently used for the assembly of flight GFE RF units for GFE Assembly but provides basic setup for working with any electromagnetic systems including those requiring the controls needed for testing and processing flight hardware.	2
EV	Electronic Manufacturing Facility (EMF)	44/36	B44 219, 242, 246 B36 1010C, 1014	The EMF provides manufacturing and fabrication support for flight and flight-like electronic components and systems designed for use in space.	4
EV	Electronic Systems Test Lab (ESTL)	44	116, 120-128, 144B, 152, 154, 156	Used to perform end-to-end RF communication systems testing. Interfaces with TDRS satellite, ground stations and the Mission Control Center.	4
EV	Global Positioning System Laboratory (GPS)	18	202	Design, Development, Testing, and Evaluation facility used for GPS equipment. Includes rooftop pointing system for antennas.	2
ER	Inertial Systems Laboratory (ISL)	16A	1022, 1004A	The Inertial Systems Laboratory (ISL) is responsible for the calibration, testing, evaluation, and troubleshooting of Shuttle Inertial Navigation Systems. Currently used by SSP to calibrate flight spare Inertial Measurement Units (IMU); monitor in-vehicle calibrations & on-orbit performances of IMUs; create performance evaluation report for the spare IMUs & preflight & post flight IMUs. Sustaining engineering function for SSP.	2
EV	Integrated Power Avionics & Software (iPAS)	29	Various	High Fidelity, man-in-the-loop, closed-loop flight simulation environment for CEV avionics integration testing.	2
EV	Motion Imaging Laboratory (MIL)	44	134	Design, Development, Test, Evaluation, and Support. Core Spacecraft Motion Imaging capability at JSC for institution and onsite hardware supporting operational, development and advanced programs & projects. Also SSP/ISS sustaining engineering Camera System support/Video & Imaging.	4
EV	Secure Communications Laboratory (SCL)	14	133A	Design, Development, Test, and/or Evaluation for Ground Support Equipment (GSE) Assembly	3

Division	Facility Name	Bldg	Room Nos	Description	Expected Contract Start Rediness Level
EV	Six Degree of Freedom Test Facility (6DOF)	14	135	A two-body positioning system capable of producing almost any relative orientation between two objects. Used to evaluate the accuracy of position sensors for calibration. Lab includes B14 THERMAL CHAMBER.	1
EV	Sustaining Engineering Laboratory (SEL)	44	260, 262, 240	Maintains flight and flight-like electronic hardware in support of the ISS and Shuttle programs as well as other space-related applications that require high quality, reliable hardware.	4
EV	Trajectory Control Sensor Laboratory (TCS)	14	135N, 235	Design, Development, Test, Evaluation and/or Support. Trajectory Control Sensor (TCS).	2
EV	Wireless and Radio Frequency Identification (WRFID) Laboratory	14	131, 132, 132A	A research and development facility which provides capabilities for the design, development, testing, analysis, and showcasing of RFID and other wireless technologies for space applications. Includes Habitat Wireless Test Bed (HWTB) in 14/High bay	3
KA	Astromaterials Curation Facility (KAC)	31	most	Laboratory for curation, processing and storage of interplanetary dust particles, lunar samples from the 6 Apollo missions, Antarctic meteorites, plus samples from the Genesis, Stardust, and Hayabusa sample return missions. Facility for precision cleaning tools and equipment used for sample curation. Laboratories for making petrographic thin sections and specialized sub-samples of extraterrestrial materials. Remote storage facility at NASA White Sands Test Facility.	3
KA	Astromaterials and Exploration Research Facility (KRF)	31	most	Primary functions include research on astromaterials and exploration through the use of : Electron Microscopy, Experimental Impact, Experimental Petrology, Infrared and Raman Spectroscopy, Laser Microprobe, Light Element/Stable Isotopes Analysis, NanoSIMS, Soil Chemistry & Mineralogy, Spectroscopy/Magnetics, Thermal/Calorimetry/Soil Chemistry Analysis, Thermal Ionization Mass Spectrometer, and X-Ray Analysis. Safe storage of chemicals for use by the ARES Division personnel.	3

J-25 - EA KA Facility Info Part 2

Division	Facility Name	Bldg	Room Nos	Description	Expected Contract Start Rediness Level
KA	Image Science and Analysis Laboratory Facility (KAT)	36	most	Provide quantitative engineering image analysis and image integration for problem solving, mission safety, vehicle maintenance, vehicle performance and the Certification of Flight Readiness Process. This facility also provides real-time Earth Observations operations support and is a facility for Crew Earth Observations (CEO) operations (CEO - a science payload on-board ISS).	3
KA	Orbital Debris Facility (RDA)	268	most	This lab processes radar/optical debris measurement data supporting the orbital debris and meteoroid environment modeling programs.	3
KA	Hypervelocity Impact Test Facility (HYP)	267	most	This facility develops spacecraft meteoroid and orbital debris (M/OD) shielding, and provides M/OD risk assessments based on spacecraft geometry, mission profile, and M/OD shield performance.	3
KA	ARES Infrastructure (AIF)	31	most	Contains network connections for both internal and IsoLAN networks. All ARES public web servers are located here. Contains all ARES institutional servers, as well as lab/shop facilities for computer maintenance and repair.	3

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE		PAGE OF PAGES 1 2	
2. AMENDMENT/MODIFICATION NO. 000014		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO. 4200489604	
6. ISSUED BY NASA/Johnson Space Center Attn: Lawrence Miller/BH2 2101 NASA Parkway Houston TX 77058-3696		CODE JSC		5. PROJECT NO. (If applicable)	
		7. ADMINISTERED BY (If other than Item 6) NASA/Johnson Space Center Attn: Lawrence Miller/BH2 281.483.3916 lawrence.l.miller@nasa.gov 2101 NASA Parkway Houston TX 77058-3696		CODE JSC	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) JACOBS 600 WILLIAM NORTHERN BLVD TULLAHOMA TN 37388-4729		(x)		9A. AMENDMENT OF SOLICITATION NO.	
				9B. DATED (SEE ITEM 11)	
		x		10A. MODIFICATION OF CONTRACT/ORDER NO. NNJ13HA01C	
				10B. DATED (SEE ITEM 13) 02/08/2013	
CODE 07486		FACILITY CODE			

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

Net Increase:

\$4,443,629.11

See Schedule

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) FAR 52.232-22 Limitation of Funds

E. IMPORTANT: Contractor ☒ is not, ☐ is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

The purpose of this modification is to 1) decrease contract funding from \$67,692,252.98 to \$72,135,882.09, a increase of \$4,443,629.11; and 2) update contract clause B.5, Contract Funding (see page 2).

Payment Terms:

Net 30 days

FOB: Destination

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect

15A. NAME AND TITLE OF SIGNER (Type or print)

16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)

Miyoshi J. Thompson

15B. CONTRACTOR/OFFEROR

15C. DATE SIGNED

16B. UNITED STATES OF AMERICA

16C. DATE SIGNED

(Signature of person authorized to sign)

(Signature of Contracting Officer)

8.29.13

NSN 7540-01-152-8070
Previous edition unusable

STANDARD FORM 30 (REV. 10-83)
Prescribed by GSA
FAR (48 CFR) 53.243

B.3 CONTRACT PHASE-IN (FIRM-FIXED PRICE)

The total firm fixed price of all phase-in effort for this contract is **\$350,000** covering a 60-calendar day phase-in period from **March 1, 2013** through **April 30, 2013**.

(End of clause)

B.5 CONTRACT FUNDING (NFS 1852.232-81) (JUN 1990)

(a) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds clause, the total amount allotted by the Government to this contract is

(b) (4) This allotment is for JSC Engineering, Technology and Science (JETS) efforts at NASA/JSC and covers the following estimated period of performance: May 1, 2013 through **September 27, 2013**.

(b) An additional amount of **(b) (4)** is obligated under this contract for payment of fee.

(End of clause)

Funding recapitulation (included for administrative purposes only):

	Prior Funding Thru	Current Action	Total Funding Thru
	Mod 13	Mod 14	Mod 14
Cost	(b) (4)		
Fee			
Total	\$67,692,252.98	\$4,443,629.11	\$72,135,882.09

OBLIGATIONS	
PR	Amount
4200489604	\$4,443,629.11
Total	\$4,443,629.11

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE		PAGE OF PAGES 1 2	
2. AMENDMENT/MODIFICATION NO. 000015		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO. See Schedule	
6. ISSUED BY NASA/Johnson Space Center Attn: Lawrence Miller/BH2 2101 NASA Parkway Houston TX 77058-3696		CODE JSC		5. PROJECT NO. (If applicable)	
		7. ADMINISTERED BY (If other than Item 6) NASA/Johnson Space Center Attn: Lawrence Miller/BH2 281.483.3916 lawrence.l.miller@nasa.gov 2101 NASA Parkway Houston TX 77058-3696		CODE JSC	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) JACOBS 600 WILLIAM NORTHERN BLVD TULLAHOMA TN 37388-4729		(x)		9A. AMENDMENT OF SOLICITATION NO.	
				9B. DATED (SEE ITEM 11)	
		x		10A. MODIFICATION OF CONTRACT/ORDER NO. NNJ13HA01C	
				10B. DATED (SEE ITEM 13) 02/08/2013	
CODE 07486		FACILITY CODE			

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required) Net Increase: \$3,389,120.60
See Schedule

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
	D. OTHER (Specify type of modification and authority)
X	FAR 52.232-22 Limitation of Funds

E. IMPORTANT: Contractor ☒ is not. ☐ is required to sign this document and return _____ 0 _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

The purpose of this modification is to 1) increase contract funding from \$72,135,882.09 to \$ 75,525,002.69, a increase of \$3,389,120.60; and 2) update contract clause B.5, Contract Funding (see page 2).

Payment Terms:

Net 30 days

Delivery Location Code: JSC

NASA/Johnson Space Center

2101 NASA Parkway

Houston TX 77058-3696 USA

FOB: Destination

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Miyoshi J. Thompson	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)		15C. DATE SIGNED 16A. UNITED STATES OF AMERICA (Signature of Contracting Officer)	
		16C. DATE SIGNED 9-3-13	

B.3 CONTRACT PHASE-IN (FIRM-FIXED PRICE)

The total firm fixed price of all phase-in effort for this contract is **(b) (4)** covering a 60-calendar day phase-in period from March 1, 2013 through April 30, 2013.

(End of clause)

B.5 CONTRACT FUNDING (NFS 1852.232-81) (JUN 1990)

(a) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds clause, the total amount allotted by the Government to this contract is **(b) (4)**. This allotment is for JSC Engineering, Technology and Science (JETS) efforts at NASA/JSC and covers the following estimated period of performance: May 1, 2013 through **September 27, 2013**.

(b) An additional amount of **(b) (4)** is obligated under this contract for payment of fee.

(End of clause)

Funding recapitulation (included for administrative purposes only):

TOTAL			
	Prior Funding Thru Mod 14	Current Action Mod 15	Total Funding Thru Mod 15
Cost Fee FFP	(b) (4)		
Total	\$72,135,882.09	\$3,389,120.60	\$75,525,002.69

OBLIGATIONS	
PR	Amount
4200489606	\$3,283,135.27
4200489607	\$105,985.33
Total	\$3,389,120.60

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE		PAGE OF PAGES 1 3	
2. AMENDMENT/MODIFICATION NO. 000016		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO.	
5. PROJECT NO. (If applicable)		6. ISSUED BY NASA/Johnson Space Center Attn: Lawrence Miller/BH2 2101 NASA Parkway Houston TX 77058-3696		7. ADMINISTERED BY (If other than Item 6) NASA/Johnson Space Center Attn: Lawrence Miller/BH2 281.483.3916 lawrence.l.miller@nasa.gov 2101 NASA Parkway Houston TX 77058-3696	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) JACOBS 600 WILLIAM NORTHERN BLVD TULLAHOMA TN 37388-4729		(x) 9A. AMENDMENT OF SOLICITATION NO.		9B. DATED (SEE ITEM 11)	
CODE 07486		FACILITY CODE		10A. MODIFICATION OF CONTRACT/ORDER NO. NNJ13HA01C	
				10B. DATED (SEE ITEM 13) 02/08/2013	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)
See Schedule
Net Decrease: -\$1,290,889.90

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) FAR 52.232-22 Limitation of Funds

E. IMPORTANT: Contractor ☒ is not. ☐ is required to sign this document and return _____ 0 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

The purpose of this modification is to 1) decrease contract funding from \$ 75,525,002.69 to \$74,234,112.79, a decrease of \$1,290,889.90; and 2) update contract clause B.5, Contract Funding (see page 2).

Payment Terms:

Net 30 days

FOB: Destination

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect

15A. NAME AND TITLE OF SIGNER (Type or print) Miyoshi J. Thompson		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Miyoshi J. Thompson	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA (Signature of Contracting Officer)	16C. DATE SIGNED 9-4-13

B.3 CONTRACT PHASE-IN (FIRM-FIXED PRICE)

The total firm fixed price of all phase-in effort for this contract is (b) (4) covering a 60-calendar day phase-in period from March 1, 2013 through April 30, 2013.

(End of clause)

B.5 CONTRACT FUNDING (NFS 1852.232-81) (JUN 1990)

(a) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds clause, the total amount allotted by the Government to this contract is (b) (4). This allotment is for JSC Engineering, Technology and Science (JETS) efforts at NASA/JSC and covers the following estimated period of performance: May 1, 2013 through **October 18, 2013**.

(b) An additional amount of (b) (4) is obligated under this contract for payment of fee.

(End of clause)

Funding recapitulation (included for administrative purposes only):

TOTAL			
	Prior Funding Thru Mod 15	Current Action Mod 15	Total Funding Thru Mod 16
Cost Fee FFP	(b) (4)		
Total	\$75,525,002.69	(\$1,290,889.90)	\$74,234,112.79

DC OBLIGATIONS				
PR #	PLI	ALI	WBS Element	Amount
4200481689	3	37	170786.07.03.09.01.32	\$ 1,705.32
4200474826	1	4	871056.06.02.01.09.10	\$ 101,439.90
4200481686	1	16	871056.06.02.01.09.10	\$ 53,000.00
4200481686	1	70	921179.01.05.2105.13	\$ 9,936.40
4200463007	2	72	401769.06.06.01.02.26	\$ 3,577.04
4200474826	1	46	401769.06.03.03.02.19	\$ 1,897.20
4200485670	3	12	401769.06.03.03.02.21	\$ 57,928.00
4200485589	1	24	769347.05.08.13.04.01	\$ 43,215.61
4200481688	2	43	854319.04.01.01.01	\$ 173,316.49
4200463007	2	54	401769.06.04.01.02.04	\$ 21,742.12
4200481686	1	63	871056.06.04.01.02.06	\$ 4,282.36
4200481686	1	67	401769.06.04.01.02.06	\$ 15,264.80
4200485589	1	79	581570.02.02.02.02.02	\$ 17,566.00
4200463007	2	23	432938.11.01.05.01.02	\$ 41,197.43
4200485670	3	40	432938.09.01.05.05.03.77	\$ 5,964.50
4200463007	2	14	401769.06.06.01.02.23	\$ 11,698.27
4200478580	1	56	401769.06.04.03.02.05.01	\$ 4,000.00
4200485604	2	8	401769.06.03.06.02.22	\$ 3,743.00
4200463007	2	37	401769.06.01.01.24	\$ 28,404.58
4200463007	2	41	401769.06.06.01.02.11	\$ 249.80
4200485604	2	2	581570.03.04.08	\$ 36,536.34
4200485604	2	7	269655.04.02.02.06	\$ 14,145.00
4200478581	2	63	804911.02.05.1609.13	\$ 1,778.21

Continuation of SF30

NNJ13HA01C

Modification 16

Page 3 of 3

4200463007	2	47	401769.06.04.02.02.15	\$ 150,000.00
4200463007	2	50	401769.06.04.02.02.28	\$ 40,000.00
4200463007	2	52	401769.06.06.01.02.29.01	\$ 30,000.00
4200478613	3	29	869021.05.05.09.12	\$ 173,792.91
4200478613	3	3	769347.05.08.14.02.04	\$ 620.40
4200478613	3	39	401769.06.03.07.03.07	\$ 8,888.22
4200481686	1	86	828928.04.02.04.02	\$ 15,000.00
4200481686	1	87	828928.04.02.04.03	\$ 20,000.00
4200485604	2	28	048290.02.01.01.01	\$ 200,000.00
Total				\$(1,290,889.90)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE		PAGE OF PAGES 1 2	
2. AMENDMENT/MODIFICATION NO. 000017		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO.	
6. ISSUED BY NASA/Johnson Space Center Attn: Lawrence Miller/BH2 2101 NASA Parkway Houston TX 77058-3696		CODE JSC		7. ADMINISTERED BY (If other than Item 6) NASA/Johnson Space Center Attn: Lawrence Miller/BH2 281.483.3916 lawrence.l.miller@nasa.gov 2101 NASA Parkway Houston TX 77058-3696	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) JACOBS 600 WILLIAM NORTHERN BLVD TULLAHOMA TN 37388-4729		(x)		9A. AMENDMENT OF SOLICITATION NO.	
CODE 07486		FACILITY CODE		9B. DATED (SEE ITEM 11)	
		X		10A. MODIFICATION OF CONTRACT/ORDER NO. NNJ13HA01C	
				10B. DATED (SEE ITEM 13) 02/08/2013	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

See Schedule

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF
X	D. OTHER (Specify type of modification and authority) Mutual Agreement of Both Parties

E. IMPORTANT: Contractor ☐ is not, ☒ is required to sign this document and return 2 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible)

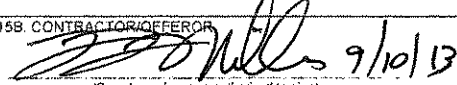
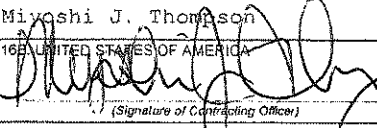
The purpose of this modification is to update section H.10 Key Personnel and Facilities, removing Sonny Parkman and adding Emilio Vela.

The contract change pages are attached.

Payment Terms:

Net 30 days

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print) Lon F. Miller / Sr. Vice President and General Manager		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Miyoshi J. Thompson	
15B. CONTRACTOR/OFFEROR  (Signature of person authorized to sign)	15C. DATE SIGNED 9/10/13	16B. UNITED STATES OF AMERICA  (Signature of Contracting Officer)	16C. DATE SIGNED 9-12-13

NSN 7540-01-152-8070
Previous edition unusable

STANDARD FORM 30 (REV. 10-83)
Prescribed by GSA
FAR (48 CFR) 53.243

The clause below was updated in section H of the contract:

H.10 KEY PERSONNEL AND FACILITIES (NFS 1852.235-71) (MAR 1989)

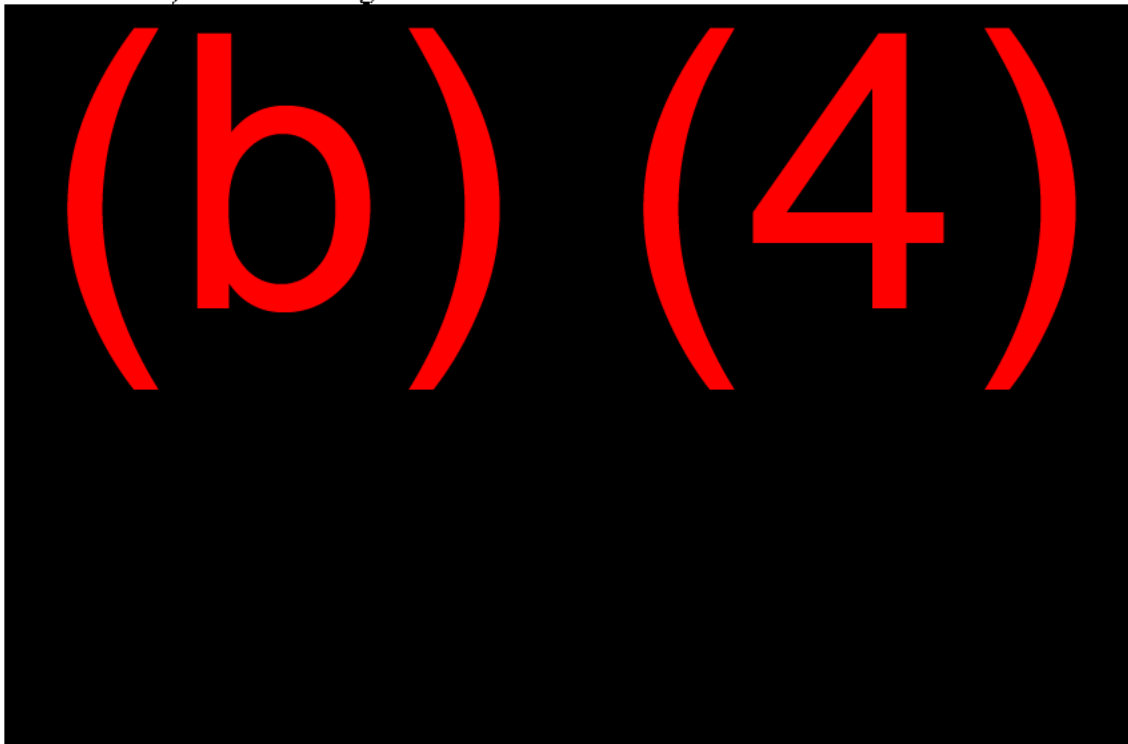
(a) The personnel and/or facilities listed below are considered essential to the work being performed under this contract. Before removing, replacing, or diverting any of the listed or specified personnel or facilities, the Contractor shall (1) notify the Contracting Officer reasonably in advance and (2) submit justification (including proposed substitutions) in sufficient detail to permit evaluation of the impact on this contract.

(b) The Contractor shall make no diversion without the Contracting Officer's written consent; provided that the Contracting Officer may ratify in writing the proposed change, and that ratification shall constitute the Contracting Officer's consent required by this clause.

(c) The list of personnel and/or facilities (shown below or as specified in the contract Schedule) may, with the consent of the contracting parties, be amended from time to time during the course of the contract to add or delete personnel and/or facilities.

Key Personnel: (Includes full name and position title)

Lon Miller, General Manager



Key Facilities: 2224 Bay Area Blvd., Houston TX, 77508

(End of clause)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE		PAGE OF PAGES 1 3	
2. AMENDMENT/MODIFICATION NO. 000018		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO.	
5. PROJECT NO. (If applicable)		6. ISSUED BY CODE JSC		7. ADMINISTERED BY (If other than Item 6) CODE JSC	
NASA/Johnson Space Center Attn: Lawrence Miller/BH2 2101 NASA Parkway Houston TX 77058-3696		NASA/Johnson Space Center Attn: Lawrence Miller/BH2 281.483.3916 lawrence.l.miller@nasa.gov 2101 NASA Parkway Houston TX 77058-3696			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) JACOBS 600 WILLIAM NORTHERN BLVD TULLAHOMA TN 37388-4729		(x) 9A. AMENDMENT OF SOLICITATION NO.			
		9B. DATED (SEE ITEM 11)			
		x 10A. MODIFICATION OF CONTRACT/ORDER NO. NNJ13HA01C			
		10B. DATED (SEE ITEM 13) 02/08/2013			
CODE 07486		FACILITY CODE			

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required) Net Decrease: -\$548,778.76
See Schedule

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) FAR 52.232-22 Limitation of Funds

E. IMPORTANT: Contractor ☒ is not, ☐ is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

The purpose of this modification is to 1) decrease contract funding from \$74,234,112.79 to \$73,685,334.03, a decrease of \$548,778.76; and 2) update contract clause B.5, Contract Funding (see page 2).

Payment Terms:

Net 30 days

FOB: Destination

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Dana L. Altmon-Cary	
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA	16C. DATE SIGNED 9/18/13
(Signature of person authorized to sign)		(Signature of Contracting Officer)	

B.3 CONTRACT PHASE-IN (FIRM-FIXED PRICE)

The total firm fixed price of all phase-in effort for this contract is (b) (4) covering a 60-calendar day phase-in period from March 1, 2013 through April 30, 2013.

(End of clause)

B.5 CONTRACT FUNDING (NFS 1852.232-81) (JUN 1990)

(a) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds clause, the total amount allotted by the Government to this contract is (b) (4). This allotment is for JSC Engineering, Technology and Science (JETS) efforts at NASA/JSC and covers the following estimated period of performance: May 1, 2013 through **October 15, 2013**.

(b) An additional amount of (b) (4) is obligated under this contract for payment of fee.

(End of clause)

Funding recapitulation (included for administrative purposes only):

TOTAL			
	Prior Funding Thru Mod 17	Current Action Mod 18	Total Funding Thru Mod 18
Cost Fee FFP	(b) (4)		
Total	\$74,234,112.79	(\$548,778.76)	\$73,685,334.03

DE-OBLIGATIONS				
PR #	PLI	ALI	WBS Element	Amount
4200463007	2	4	401769.06.01.01.01	\$ 26,315.31
4200463007	2	38	401769.06.01.01.25	\$ 18,041.48
4200463007	2	64	401769.06.05.01.02.16	\$ 48,015.54
4200474827	2	11	724297.40.49.05	\$ 3,000.00
4200474827	2	53	699549.06.01.01.04	\$ 4,696.16
4200478581	2	3	359257.01.10.01	\$ 3,515.73
4200478581	2	58	724297.40.49.05	\$ 2,411.00
4200481686	1	17	581570.03.04.08	\$ 38,877.06
4200481686	1	20	401769.06.01.02.05	\$ 57,602.62
4200481686	1	21	401769.06.04.03.02.01	\$ 32,705.79
4200481686	1	37	401769.06.06.01.02.07	\$ 6,512.40
4200481686	1	39	401769.06.06.03.01.01	\$ 59.52
4200481686	1	40	401769.06.08.01.04.03.01	\$ 6,909.90
4200481688	2	31	453797.04.03.06	\$ 15,159.32
4200481688	2	43	854319.04.01.01.01	\$ 28,312.96
4200481688	2	64	401769.06.03.01.02.10	\$ 1,879.00
4200481688	2	73	401769.06.01.01.25	\$ 3,624.52
4200481689	3	41	581570.03.04.08	\$ 2,454.00

Continuation of SF30

NNJ13HA01C

Modification 18

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4200481689	3	56	724297.40.49.05	\$ 2,111.00
4200481689	3	64	747797.06.13.04.99.10	\$ 4,499.00
4200485589	1	34	854319.04.02.04.01	\$ 20,000.00
4200485589	1	38	401769.06.01.01.25	\$ 1,166.09
4200485589	1	48	401769.06.06.01.02.23	\$ 344.53
4200485589	1	58	008102.02.02	\$ 1,655.00
4200485604	2	11	432938.09.01.05.05.03.58	\$ 3,293.00
4200485670	3	24	581570.03.04.08	\$ 15,081.12
4600008796	1	10	371365.02.01	\$ 30,000.00
4200489604	1	12	019553.01.01.01	\$ 18,666.00
4200489604	1	52	401769.06.01.01.25	\$ 11,148.28
4200489606	1	7	401769.06.05.01.02.16	\$ 100,000.00
4200489606	1	18	747797.06.13.04.99.10	\$ 19,000.00
4200489606	1	28	854319.04.02.04.01	\$ 16,073.97
4200489606	1	58	833011.02.05.2131.13	\$ 1,748.46
4200489606	1	78	432938.11.01.05.01.05	\$ 3,900.00
Total				\$ (548,778.76)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE		PAGE OF PAGES 1 2	
2. AMENDMENT/MODIFICATION NO. 000019		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO. See Schedule	
6. ISSUED BY NASA/Johnson Space Center Attn: Lawrence Miller/BH2 2101 NASA Parkway Houston TX 77058-3696		CODE JSC		5. PROJECT NO. (If applicable)	
		7. ADMINISTERED BY (If other than Item 6) NASA/Johnson Space Center Attn: Lawrence Miller/BH2 281.483.3916 lawrence.l.miller@nasa.gov 2101 NASA Parkway Houston TX 77058-3696		CODE JSC	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) JACOBS 600 WILLIAM NORTHERN BLVD TULLAHOMA TN 37388-4729		(x)		9A. AMENDMENT OF SOLICITATION NO.	
				9B. DATED (SEE ITEM 11)	
		x		10A. MODIFICATION OF CONTRACT/ORDER NO. NNJ13HA01C	
				10B. DATED (SEE ITEM 13) 02/08/2013	
CODE 07486		FACILITY CODE			

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended.
 Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)
 See Schedule Net Increase: \$7,036,654.81

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) FAR 52.232-22 Limitation of Funds

E. IMPORTANT: Contractor ☒ is not. ☐ is required to sign this document and return _____ 0 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

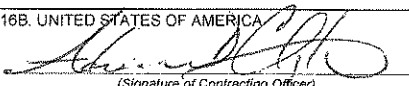
The purpose of this modification is to 1) increase contract funding from \$73,685,334.03 to \$80,721,988.84, a increase of \$7,036,654.81; and 2) update contract clause B.5, Contract Funding (see page 2).

Payment Terms:

Net 30 days

FOB: Destination

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Adrian Clayton	
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA 	16C. DATE SIGNED 9-19-2013
(Signature of person authorized to sign)		(Signature of Contracting Officer)	

B.3 CONTRACT PHASE-IN (FIRM-FIXED PRICE)

The total firm fixed price of all phase-in effort for this contract is (b) (4) covering a 60-calendar day phase-in period from **March 1, 2013** through **April 30, 2013**.

(End of clause)

B.5 CONTRACT FUNDING (NFS 1852.232-81) (JUN 1990)

(a) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds clause, the total amount allotted by the Government to this contract is (b) (4). This allotment is for JSC Engineering, Technology and Science (JETS) efforts at NASA/JSC and covers the following estimated period of performance: May 1, 2013 through **October 29, 2013**.

(b) An additional amount of (b) (4) is obligated under this contract for payment of fee.

(End of clause)

Funding recapitulation (included for administrative purposes only):

TOTAL			
	Prior Funding Thru Mod 18	Current Action Mod 19	Total Funding Thru Mod 19
Cost	(b) (4)		
Fee			
FFP			
Total	\$73,685,334.03	\$7,036,654.81	\$80,721,988.84

OBLIGATIONS	
PR	Amount
4200491567	\$427,813.20
4200491520	\$5,475,206.86
4200491593	\$1,133,634.75
Total	\$7,036,854.81

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE		PAGE OF PAGES 1 2	
2. AMENDMENT/MODIFICATION NO. 000020		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO. See Schedule	
5. PROJECT NO. (If applicable)		6. ISSUED BY NASA/Johnson Space Center Attn: Lawrence Miller/BH2 2101 NASA Parkway Houston TX 77058-3696		7. ADMINISTERED BY (If other than Item 6) NASA/Johnson Space Center Attn: Lawrence Miller/BH2 281.483.3916 lawrence.l.miller@nasa.gov 2101 NASA Parkway Houston TX 77058-3696	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) JACOBS 600 WILLIAM NORTHERN BLVD TULLAHOMA TN 37388-4729		9A. AMENDMENT OF SOLICITATION NO. (x)		9B. DATED (SEE ITEM 11)	
CODE 07486		FACILITY CODE		10A. MODIFICATION OF CONTRACT/ORDER NO. NNJ13HA01C	
				10B. DATED (SEE ITEM 13) 02/08/2013	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required) Net Increase: \$6,247,772.92
See Schedule

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) FAR 52.232-22 Limitation of Funds

E. IMPORTANT: Contractor ☒ is not, ☐ is required to sign this document and return _____ 0 _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

The purpose of this modification is to 1) increase contract funding from \$80,721,988.84 to \$86,969,761.76 , a increase of \$6,247,772.92; and 2) update contract clause B.5, Contract Funding (see page 2).

Payment Terms:

Net 30 days

FOB: Destination

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)	
15B. CONTRACTOR/OFFEROR		16B. UNITED STATES OF AMERICA	
15C. DATE SIGNED		16C. DATE SIGNED	
(Signature of person authorized to sign)		(Signature of Contracting Officer)	

B.3 CONTRACT PHASE-IN (FIRM-FIXED PRICE)

The total firm fixed price of all phase-in effort for this contract is (b) (4) covering a 60-calendar day phase-in period from March 1, 2013 through April 30, 2013.

(End of clause)

B.5 CONTRACT FUNDING (NFS 1852.232-81) (JUN 1990)

(a) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds clause, the total amount allotted by the Government to this contract is (b) (4). This allotment is for JSC Engineering, Technology and Science (JETS) efforts at NASA/JSC and covers the following estimated period of performance: May 1, 2013 through **November 29, 2013**.

(b) An additional amount of (b) (4) is obligated under this contract for payment of fee.

(End of clause)

Funding recapitulation (included for administrative purposes only):

TOTAL			
	Prior Funding Thru Mod 19	Current Action Mod 20	Total Funding Thru Mod 20
Cost Fee FFP	(b) (4)		
Total	\$80,721,988.84	\$6,247,772.92	\$86,969,761.76

OBLIGATIONS	
PR	Amount
4200492655	\$4,226,868.93
4200492675	\$2,020,903.99
Total	\$6,247,772.92

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1 CONTRACT ID CODE		PAGE OF PAGES 1 2	
2. AMENDMENT/MODIFICATION NO. 000021		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO.	
6. ISSUED BY NASA/Johnson Space Center Attn: Lawrence Miller/BH2 2101 NASA Parkway Houston TX 77058-3696		CODE JSC		7. ADMINISTERED BY (If other than Item 6) NASA/Johnson Space Center Attn: Lawrence Miller/BH2 281.483.3916 lawrence.l.miller@nasa.gov 2101 NASA Parkway Houston TX 77058-3696	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) JACOBS 600 WILLIAM NORTHERN BLVD TULLAHOMA TN 37388-4729		(9)		9A. AMENDMENT OF SOLICITATION NO.	
				9B. DATED (SEE ITEM 11)	
		X		10A. MODIFICATION OF CONTRACT/ORDER NO. NNJ13HA01C	
				10B. DATED (SEE ITEM 13) 02/08/2013	
CODE 07486		FACILITY CODE			

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing items 8 and 15, and returning _____ copies of this amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (if required)

Net Decrease:

-\$215,392.23

See Schedule

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) FAR 52.232-22 Limitation of Funds

E. IMPORTANT: Contractor ☐ is not ☒ is required to sign this document and return _____ 2 _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible)


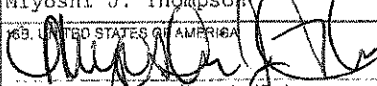
The purpose of this modification is to 1) decrease contract funding from \$86,969,761.76 to \$86,754,369.53, a decrease of \$215,392.23; and 2) update contract clause H.5, Contract Funding (see page 2).

Payment Terms:

Net 30 days

FOB: Destination

Except as provided herein, all terms and conditions of the document referenced in item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print) Lon F. Miller / Sr. Vice President and General Manager		15B. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Miyoshi J. Thompson	
15B. CONTRACT/ORDER NO. 	15C. DATE SIGNED 10/18/13	15D. UNITED STATES OF AMERICA 	15E. DATE SIGNED 10/21/13

NSN 7540-01-152-8070
Previous edition unusable

STANDARD FORM 30 (REV. 10-83)
Prescribed by GSA
FAR (48 CFR) 53.243

B.3 CONTRACT PHASE-IN (FIRM-FIXED PRICE)

The total firm fixed price of all phase-in effort for this contract is (b) (4) covering a 60-calendar day phase-in period from March 1, 2013 through April 30, 2013.

(End of clause)

B.5 CONTRACT FUNDING (NFS 1852.232-81) (JUN 1990)

(a) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds clause, the total amount allotted by the Government to this contract is (b) (4). This allotment is for JSC Engineering, Technology and Science (JETS) efforts at NASA/JSC and covers the following estimated period of performance: May 1, 2013 through November 28, 2013.

(b) An additional amount of (b) (4) is obligated under this contract for payment of fee.

(End of clause)

Funding recapitulation (included for administrative purposes only):

TOTAL			
	Prior Funding Thru Mod 20	Current Action Mod 21	Total Funding Thru Mod 21
Cost	(b) (4)		
Fee			
FFP			
Total	\$86,969,761.76	(\$215,392.23)	\$86,754,369.53

DISOBLIGATIONS				
PR #	PLI	ALI	WBS Element	Amount
4200492655	1	42	647280.04.02.10	\$ 215,392.23
Total				\$ (215,392.23)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT D CODE		PAGE OF PAGES 1 2	
2. AMENDMENT/MODIFICATION NO. 000022		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO. See Schedule	
6. ISSUED BY NASA/Johnson Space Center Attn: Lawrence Miller/BH2 2101 NASA Parkway Houston TX 77058-3696		CODE JSC		5. PROJECT NO. (If applicable) 7. ADMINISTERED BY (If other than Item 6) NASA/Johnson Space Center Attn: Lawrence Miller/BH2 281.483.3916 lawrence.l.miller@nasa.gov 2101 NASA Parkway Houston TX 77058-3696	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) JACOBS 600 WILLIAM NORTHERN BLVD TULLAHOMA TN 37388-4729		(X)		9A. AMENDMENT OF SOLICITATION NO.	
CODE 07486		FACILITY CODE		9B. DATED (SEE ITEM 11)	
		X		10A. MODIFICATION OF CONTRACT/ORDER NO. NNJ13HA01C	
				10B. DATED (SEE ITEM 13) 02/08/2013	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended ☐ is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)
See Schedule Net Increase: \$6,000,019.66

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) FAR 52.232-22 Limitation of Funds

E. IMPORTANT Contractor ☒ is not, ☐ is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

The purpose of this modification is to 1) increase contract funding from \$86,754,369.53 to \$92,754,389.19, a increase of \$6,000,019.66; and 2) update contract clause B.5, Contract Funding (see page 2).

Payment Terms:

Net 30 days

FOB: Destination

Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Miyoshi J. Thompson	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA <i>Miyoshi Thompson</i> (Signature of Contracting Officer)	16C. DATE SIGNED 11/01/2013

B.3 CONTRACT PHASE-IN (FIRM-FIXED PRICE)

The total firm fixed price of all phase-in effort for this contract is (b) (4) covering a 60-calendar day phase-in period from **March 1, 2013** through **April 30, 2013**.

(End of clause)

B.5 CONTRACT FUNDING (NFS 1852.232-81) (JUN 1990)

(a) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds clause, the total amount allotted by the Government to this contract is \$ (b) (4). This allotment is for JSC Engineering, Technology and Science (JETS) efforts at NASA/JSC and covers the following estimated period of performance: May 1, 2013 through **December 18, 2013**.

(b) An additional amount of \$ (b) (4) is obligated under this contract for payment of fee.

(End of clause)

Funding recapitulation (included for administrative purposes only):

TOTAL			
	Prior Funding Thru Mod 21	Current Action Mod 22	Total Funding Thru Mod 22
Cost Fee FFP	(b) (4)		
Total	\$86,754,369.53	\$6,000,019.66	\$92,754,389.19

OBLIGATIONS	
PR	Amount
4200494405	\$5,136,019.66
4200494434	\$864,000.00
Total	\$6,000,019.66

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT D CODE		PAGE OF PAGES	
				1 2	
2. AMENDMENT/MODIFICATION NO. 000023		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO. 4200494388	
5. PROJECT NO. (If applicable)					
6. ISSUED BY NASA/Johnson Space Center Attn: Lawrence Miller/BH2 2101 NASA Parkway Houston TX 77058-3696		CODE JSC		7. ADMINISTERED BY (If other than Item 6) NASA/Johnson Space Center Attn: Lawrence Miller/BH2 281.483.3916 lawrence.l.miller@nasa.gov 2101 NASA Parkway Houston TX 77058-3696	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) JACOBS 600 WILLIAM NORTHERN BLVD TULLAHOMA TN 37388-4729		(X)		9A. AMENDMENT OF SOLICITATION NO.	
				9B. DATED (SEE ITEM 11)	
		X		10A. MODIFICATION OF CONTRACT/ORDER NO. NNJ13HA01C	
				10B. DATED (SEE ITEM 13) 02/08/2013	
CODE 07486		FACILITY CODE			

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended ☐ is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)
See Schedule Net Increase: \$6,666,301.61

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) FAR 52.232-22 Limitation of Funds

E. IMPORTANT Contractor ☒ is not, ☐ is required to sign this document and return _____ 0 _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

The purpose of this modification is to 1) increase contract funding from \$92,754,389.19 to \$99,420,690.80, a increase of \$6,666,301.61; and 2) update contract clause B.5, Contract Funding (see page 2).

Payment Terms:

Net 30 days

FOB: Destination

Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Miyoshi J. Thompson	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA <i>Miyoshi Thompson</i> (Signature of Contracting Officer)	16C. DATE SIGNED 11/01/2013

B.3 CONTRACT PHASE-IN (FIRM-FIXED PRICE)

The total firm fixed price of all phase-in effort for this contract is \$ (b) (4) covering a 60-calendar day phase-in period from **March 1, 2013** through **April 30, 2013**.

(End of clause)

B.5 CONTRACT FUNDING (NFS 1852.232-81) (JUN 1990)

(a) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds clause, the total amount allotted by the Government to this contract is \$ (b) (4). This allotment is for JSC Engineering, Technology and Science (JETS) efforts at NASA/JSC and covers the following estimated period of performance: May 1, 2013 through **December 18, 2013**.

(b) An additional amount of \$ (b) (4) is obligated under this contract for payment of fee.

(End of clause)

Funding recapitulation (included for administrative purposes only):

TOTAL			
	Prior Funding Thru Mod 22	Current Action Mod 23	Total Funding Thru Mod 23
Cost	(b) (4)		
Fee			
FFP			
Total	\$92,754,389.19	\$6,666,301.61	\$99,420,690.80

OBLIGATIONS	
PR	Amount
4200494388	\$6,666,301.61
Total	\$6,666,301.61

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE		PAGE OF PAGES 1 2	
2. AMENDMENT/MODIFICATION NO. 000024		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO.	
6. ISSUED BY NASA/Johnson Space Center Attn: Lawrence Miller/BH2 2101 NASA Parkway Houston TX 77058-3696		CODE JSC		7. ADMINISTERED BY (If other than Item 6) NASA/Johnson Space Center Attn: Lawrence Miller/BH2 281.483.3916 lawrence.l.miller@nasa.gov 2101 NASA Parkway Houston TX 77058-3696	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) JACOBS 600 WILLIAM NORTHERN BLVD TULLAHOMA TN 37388-4729		(x)		9A. AMENDMENT OF SOLICITATION NO.	
				9B. DATED (SEE ITEM 11)	
		x		10A. MODIFICATION OF CONTRACT/ORDER NO. NNJ13HA01C	
				10B. DATED (SEE ITEM 13) 02/08/2013	
CODE 07486		FACILITY CODE			

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required) Net Decrease: -\$215,600.00
See Schedule

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) FAR 52.232-22 Limitation of Funds

E. IMPORTANT: Contractor ☐ is not. ☒ is required to sign this document and return 2 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

The purpose of this modification is to 1) decrease contract funding from \$99,420,690.80 to \$99,205,090.80, a decrease of \$215,600.00; and 2) update contract clause B.5, Contract Funding (see page 2).

Payment Terms:

Net 30 days

Delivery Location Code: JSC

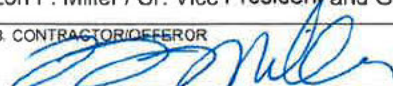

NASA/Johnson Space Center

2101 NASA Parkway

Houston TX 77058-3696 USA

FOB: Destination

Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print) Lon F. Miller / Sr. Vice President and General Manager		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Miyoshi J. Thompson	
15B. CONTRACTOR/OFFEROR  (Signature of person authorized to sign)	15C. DATE SIGNED 11/14/13	16B. UNITED STATES OF AMERICA  (Signature of Contracting Officer)	16C. DATE SIGNED 11/15/2013

B.3 CONTRACT PHASE-IN (FIRM-FIXED PRICE)

The total firm fixed price of all phase-in effort for this contract is (b) (4) covering a 60-calendar day phase-in period from March 1, 2013 through April 30, 2013.

(End of clause)

B.5 CONTRACT FUNDING (NFS 1852.232-81) (JUN 1990)

(a) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds clause, the total amount allotted by the Government to this contract is (b) (4). This allotment is for JSC Engineering, Technology and Science (JETS) efforts at NASA/JSC and covers the following estimated period of performance: May 1, 2013 through **December 17, 2013**.

(b) An additional amount of (b) (4) is obligated under this contract for payment of fee.

(End of clause)

Funding recapitulation (included for administrative purposes only):

TOTAL			
	Prior Funding Thru Mod 23	Current Action Mod 24	Total Funding Thru Mod 24
Cost Fee FFP	(b) (4)		
Total	\$99,420,690.80	(\$215,600.00)	\$99,205,090.80

DE-OBLIGATIONS				
PR #	PLI	ALI	WBS Element	Amount
4200489606	1	32	871056.06.02.01.09.09	\$ 600.00
4200481686	1	77	573754.01.01.01.03.02	\$ 159,000.00
4200489604	1	67	573754.01.01.01.03.02	\$ 34,000.00
4200478580	1	74	573754.01.01.01.03.02	\$ 22,000.00
Total				\$ (215,600.00)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE		PAGE OF PAGES 1 13	
2. AMENDMENT/MODIFICATION NO. 000025		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO.	
6. ISSUED BY NASA/Johnson Space Center Attn: Lawrence Miller/BH2 2101 NASA Parkway Houston TX 77058-3696		CODE JSC		5. PROJECT NO. (If applicable)	
7. ADMINISTERED BY (If other than Item 6) NASA/Johnson Space Center Attn: Lawrence Miller/BH2 281.483.3916 lawrence.l.miller@nasa.gov 2101 NASA Parkway Houston TX 77058-3696		CODE JSC			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) JACOBS 600 WILLIAM NORTHERN BLVD TULLAHOMA TN 37388-4729		(x)		9A. AMENDMENT OF SOLICITATION NO.	
				9B. DATED (SEE ITEM 11)	
		x		10A. MODIFICATION OF CONTRACT/ORDER NO. NNJ13HA01C	
				10B. DATED (SEE ITEM 13) 02/08/2013	
CODE 07486		FACILITY CODE			

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

See Schedule

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) Mutual Agreement of Both Parties

E. IMPORTANT: Contractor ☐ is not, ☒ is required to sign this document and return 2 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

The purpose of this modification is to update: 1) Section C (SOW Appendix), 2) Section J.2 Data Requirement Description (Supplemental Financial Status Reports and Variance Reports), and 3) Section J.11 Award Fee Plan (Appendix 2).

The contract change pages are attached.

All other terms and conditions of the contract remain unchanged.

Payment Terms:

Net 30 days

Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print) Joy H. Kelly, Ph.D. / Vice President and Deputy General Manager		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Miyoshi J. Thompson	
15B. CONTRACTOR/OFFEROR  (Signature of person authorized to sign)	15C. DATE SIGNED 11/25/13	16B. UNITED STATES OF AMERICA  (Signature of Contracting Officer)	16C. DATE SIGNED 11/26/13

NSN 7540-01-152-8070
Previous edition unusable

STANDARD FORM 30 (REV. 10-83)
Prescribed by GSA
FAR (48 CFR) 53.243

The clauses below were updated in Sections C (SOW Appendix), J-2 and Award Fee Plan (Appendix 2) of the contract:

SOW Appendix

Contractor Innovations and Corporate Capital Investments

(b) (4)

PURSUANT TO 5 USC 552

PAGES 2-10 of the SOW Appendix are exempt from release in their entirety

PER FOIA EXEMPTION (b)(4)

1. DRD Title NASA Contractor Financial Management Report	2. Date of current version 12/07/2011	3. DRL Line Item No. BP-01	RFP/Contract No. (Procurement completes) NNJ13HA01C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) Provide a basis for reporting and evaluating cost and expenditure in support of this contract. The data contained in the reports must be auditable using Generally Accepted Accounting Principles. Supplemental cost reports submitted in addition to the NF 533 must be reconcilable to the NF 533.			5. DRD Category: (<i>check one</i>) Technical Administrative SR&QA
6. References (<i>Optional</i>) NPR 9501.2E: NASA Contractor Financial Management Reporting			7. Interrelationships (<i>e.g., with other DRDs</i>)
8. Preparation Information (<i>Include complete instructions for document preparation</i>) NASA Form 533 (NF533) Reports: <u>The NF533 reports provide data necessary for the following:</u> <ol style="list-style-type: none"> 1. Projecting costs and hours to ensure that dollar and labor resources realistically support project and program schedules. 2. Evaluating contractors' actual cost and fee data, in relation to negotiated contract value, estimated costs, and budget forecast data. 3. Planning, monitoring, and controlling project and program resources. 4. Accruing cost in NASA's accounting system, providing program and functional management information, and resulting in liabilities reflected on financial statements <p>Cost is a financial measurement of resources used in accomplishing a specified purpose, such as performing a service, carrying out an activity, acquiring an asset, or completing a unit of work or project. NASA Procedural Requirements (NPR) 9501.2E entitled "NASA Contractor Financial Management Reporting," or its most current revision, identifies the cost reporting requirements for a contract. The contractor shall provide several variations of the NF533; the format and variations are provided in Attachment 1.</p> <p>The NF533M and NF533Q reports are the official cost documents used at NASA for cost type, price redetermination, and fixed price incentive contracts. The data contained in the reports must be auditable using Generally Accepted Accounting Principles. Supplemental cost reports submitted in addition to the NF533 must be reconcilable to both the NF533M and NF533Q.</p> <p>NASA is required by law, to maintain accrual accounting, which requires cost to be reported in the period in which benefits are received, without regard to time of payment.</p> <p>Examples of accrual accounting for common cost elements reported on the NF533 are below:</p>			

<u>Cost Elements</u>	<u>Definitions</u>
Labor	<p>Reported to NASA as hours are incurred. Labor is reported in the following classifications:</p> <p>Direct Regular Labor Hours Direct Overtime Hours Total Direct Hours Indirect Regular Hours Indirect Overtime Hours Total Indirect Hours Total Hours Onsite WYEs/EPs (direct and indirect) Offsite WYEs/EPs (direct and indirect) Total WYEs/EPs (direct and indirect)</p>
Equipment & Material (COTS)	Generally reported to NASA when received and accepted by the contractor.
Manufactured Equipment	Defined as any equipment that is produced to specific requirements that make it useless to anyone else without rework. Cost should be reported to NASA, as the equipment is being manufactured. The straight-line method for estimating accrued costs, or the use of supplemental information obtained from the vendor are acceptable methods used to calculate the cost accrual amount.
Leases	Reported to NASA using a proration over the life of the lease.
Travel	Reported to NASA as costs are incurred.
Subcontracts & Other Direct Costs	Actual and estimated costs reported by prime contractors shall include subcontractors' incurred costs for the same accounting period. Where subcontract costs are material, they should be separately identified on NF533 reports. The prime contractor shall include in the total cost of each subdivision of work, the accrued cost (including fee, if any) of related subcontractor effort. Subcontractors should, therefore, be required to report cost, to the prime contractor, using the accrual method of accounting. If the G&A and fee reported by a subcontractor are at the total subcontractor level, these costs must be allocated to specific sub- divisions of work. Data submitted by the subcontractor should be structured similar to the prime contractor's NF533 to enable the prime contractor to properly report to NASA. For Firm Fixed Price (FFP) subcontracts with a contract value greater than \$500,000, the prime contractor is required to document the methodology used to generate the subcontractor costs reported, and provide this information to the Contracting Officer and the JSC Deputy Chief Financial Officer of Finance. All subcontractor costs should be reported by the Governments' Fiscal Year.
Unfilled Orders	Reported as the difference between the cumulative cost incurred to date, and amounts obligated to suppliers and subcontractors.
Fee	Should be accrued as earned using a consistent and auditable method to determine the amount. For example: a acceptable method would be to use historical data to determine the amount to accrue each month. The fee should be reported on the NF533 following the "Total Cost" line. Award fee must be reported by the following categories: Base Fee, Fee Earned, Interim Fee, Provisional Fee, Potential Additional Fee, and Total Fee. If any of the above fee categories do not pertain, they should not be included in the NF533.
Prompt Payment Discounts	Cumulative cost reported to NASA should be the full incurred cost. The prompt payment discount amount taken should be reported as a separate line item on the NF533 below the cumulative cost amounts for the contract.

The chart below describes the data elements to be included in the NF533M:

<u>Data Element Name</u>	<u>Description</u>
Reporting Category (RC)	Task Order, Work Breakdown Structure
Cost Incurred for Month (7a)	Prior month actual cost incurred for each RC (column 7a on NF533)
HR/WYE Incurred for Month (7a)	Prior month actual HR/WYE incurred for each RC (column 7a on NF533)
Contract prior month planned cost (7b)	Planned cost for prior month for each RC (column 7b on NF533)
Contract Government Fiscal Year Costs to Date	Actual costs incurred from beginning of the fiscal year to prior month actual costs for each RC (located between columns 7b and 7c on the NF533)
Contract ITD cost (7c)	Contract ITD cost for each RC (column 7c on NF533)
Contract planned ITD cost (7d)	Contract planned ITD cost for each RC (column 7d on NF533)
Current month estimated cost (8a)	Cost estimate for the current month for each RC (column 8a on NF533)
Current month estimated HR/WYE (8a)	HR/WYE estimate for the current month for each RC (column 8a on NF533)
Next month estimated cost (8b)	Estimated cost for next month for each RC (column 8b on NF533)
Balance of Contract	Balance of contract for the remaining estimate to complete for each RC (column 8c on NF533)
Government Fiscal Year Estimate at Completion	Estimated cost at completion for the current fiscal year (located between columns 8c and 9a on the NF533)
Contractor Estimate	Contractor estimate for the total estimate to complete entire scope of contract for each RC (column 9a on NF533)
Contract Value	Contract value based upon contract modifications for each RC (column 9c on NF533)
Unfilled orders outstanding	Unfilled orders outstanding at the end of the reporting period for each RC (column 10 on NF533)
Reporting Category level	Used by NASA's accounting system to determine the RC level
Reporting Category Identifier	Identifies if the RC is a actual Reporting Category or a Sub-Reporting Category Line Item Number

A Reporting Category (RC) correlates to a task order (TO), or Work Breakdown Structure (WBS) and is the level at which cost is reported on the NF533M. Each RC can have Sub-Reporting Category Line Item Numbers (CLINs), containing detailed cost elements that add up to a RC. The CLIN levels will need to be reported as requested in the Supplemental Reports (see Attachments #2 - #5). For certain task orders, it may be necessary to create sub-CLIN levels; these will also need to be reported as requested in the Supplemental Reports. **The contractor is required to coordinate with the NASA Resource Analyst assigned to the contract in order to establish and maintain the Reporting Categories, CLINs, and sub-CLINs the contractor shall use to comply with this data requirement.**

Column 7b (planned cost incurred/hours worked for the month) and 7d (cumulative planned cost incurred/hours worked) of the NF533M represent the negotiated baseline plan for the contract. There may not be a relationship between the estimates provided in columns 8 of the NF533M to columns 7b and 7d. Columns 7b and 7d represent the legally binding contract negotiated baseline plan plus all authorized changes.

Short and long-term cost estimates, which include all data entered in columns 8 and 9a on the NF533M and NF533Q reports, shall be based on the most current and reliable information available.

Prior period cost adjustments shall be reported in column 7a and 7c of NF533M and column 7a of the NF533Q as soon as identified with a footnote discussing the reasons for and amounts of the adjustments and time period the adjustment relates to, delineated by government fiscal year, if affecting more than one fiscal year.

Uncompensated overtime hours worked should be reported on NF533 reports as a separate line item, in the footnotes, or in supplemental reporting.

The due dates for the NF533M and NF533Q reports are outlined in Chapter 3 of NPR 9501.2E. The following is a summary of the NF533 due date requirements. These due dates do not include the initial due dates for the NF533M and NF533Q reports, which are stated earlier in this DRD.

NF533 Report	Due Date
<i>NF533M</i>	Due no later than the 10 th calendar day of the month. In the event the 10 th calendar day falls on a non-business day, the NF533M shall be due no later than the prior business day.
<i>NF533Q</i>	Due not later than the 15th calendar day of the month proceeding the quarter being reported.

The due dates reflect the date the NF533 reports are received by personnel on the distribution list, not the date the reports are generated or mailed by the contractor. It is critical that the NF533 reports are submitted in a timely manner to ensure adequate time for NASA to analyze and record the cost into the NASA accounting system.

If requested, the contractor shall also submit a flat file of the data contained in the NF533M report and/or Supplemental on the 10th calendar day of the month. Specific format and requirements are detailed in attachment #6. The file will be compatible for downloading into SAP, NASA's financial reporting system.

An initial NF533 report is required in the NF533Q format to be used as a baseline for the life of the contract (see Attachment #1 for format). The initial (baseline) NF533Q report shall be submitted by the contractor within 15 calendar days after the contract transition/phase in period has begun. The initial report shall reflect the original contract value detailed by negotiated reporting categories and shall be the original contract baseline plan. In addition to the initial (baseline) report, monthly NF533 reporting (NF533M) shall begin no later than 30 days after the incurrence of cost.

Monthly NF533 reporting is no longer required once the contract is physically complete, provided the final cost report includes actual cost only (no estimates or forecasts). The contractor must continue to submit monthly NF533 reports as long as estimates for the following period are included. If the final cost of a contract changes after the submission of the "final" contractor cost report, the contractor must submit a revised NF533 report in the month the cost change is recognized.

Personal Property & Equipment Reporting

For all Personal Property & Equipment, purchased or fabricated, the contractor must obtain:

1. Prior approval by the Contracting Officer (CO) or their delegated Property Administrator (PA)
2. The NASA Capitalization or Expense determination from the NASA Finance Property office.

These must be obtained prior to cost being incurred for the property acquisition/fabrication. This will help ensure appropriate 533 reporting for items identified as capital. The capitalization/expense determination governs the contractor cost reporting requirements associated with the acquisition.

For all Personal Property & Equipment, purchased or fabricated, determined by NASA to be Capital, the contractor cost reporting structure to NASA shall:

1. Report the costs of each capital asset (i.e., each individual end item deliverable) as a separate reporting category on the NF 533 or other required cost reporting format.
2. Maintain a reporting structure that allows for the contractor accumulation and reporting of cost separately for each identified capital asset (i.e., each individual end item deliverable).

Capital property is defined by NASA as personal property and equipment, acquired or fabricated, that NASA will have title to and that meets all of the following criteria:

1. Has a total acquisition value equal to, or greater than, \$100,000
2. Has a useful life equal to, or greater than, 2 years (no prototypes, test articles, one time use items, etc.) and is not intended for sale in the course of normal operations
3. Has been acquired or constructed with the intention of being used, or available for use, by NASA
4. Has a planned alternative use (current or future) on another project with a separate and distinct research objective.

For all Personal Property & Equipment, purchased or fabricated, determined by NASA to be Expense, the contractor is not required to report costs at the detail asset level i.e., as a separate reporting category on the NF 533 or other required cost reporting format.

The Center Finance Property Office makes the capitalization/expense determination based on information provided by the NASA Project Manager.

The Center finance property office acquires the information from the NASA Project Manager using the Form NF1739 Alternative Future Use Questionnaire (AFUQ) which is required for each asset valued at, or greater than, \$100k. The Center finance property office may utilize a supplemental questionnaire and/or additional communication with the project manager, or their associates, to ensure adequate information is obtained to make the appropriate accounting treatment determination i.e., to Capitalize or Expense the asset.

Supplemental Financial Status Reports and Variance Reports

The contractor shall submit the supplemental reports listed below as well as those detailed in attachment #5. Initial supplemental reports are due within 30 days after the incurrence of cost; thereafter, they are due by the 10th calendar day of the month in conjunction with the NF533M report unless otherwise noted. These supplemental reports should report all data at the CLIN level unless otherwise noted. **The contractor is required to coordinate with the NASA Resource Analyst assigned to the contract in order to establish and maintain the CLIN and sub-CLIN levels the contractor shall use to comply with these requirements.**

1. Supplemental Management and Administration Cost (MAC) Report (See Attachment #2)
2. Supplemental Indefinite-Delivery-Indefinite-Quantity (IDIQ) Report (See Attachment #3)
3. Supplemental Contract Summary Report (See Attachment #4)

The contractor shall also submit variance reports when variances exceed +/-5% as described below. Variance reports are due by the 15th calendar day of the month.

Report	Variance Analysis Requirement
NF 533M Contract Summary Report	Column 7A current month to 8A previous month
NF 533M MAC Report	Columns 9A and 9B
NF 533M IDIQ Report	Columns 9A and 9B
Supplemental MAC Report	Columns 9A & 9B per CLIN Column 7A current month to 8A previous month per CLIN
Supplemental IDIQ Report	Columns 9A & 9B per CLIN(only if exceed \$50K) Column 7A current month to 8A previous month per CLIN (only if exceed \$10K)

(End of clause)

Award Fee Plan

APPENDIX 2 AWARD FEE DISTRIBUTION

Period	Dates	Max. Avail. Award Fee	Earned Award Fee
1	5/1/13 to 12/31/13	(b) (4)	TBD
2	1/1/14 to 6/30/14	TBD	TBD
3	7/1/14 to 12/31/14	TBD	TBD
4	1/1/15 to 6/30/15	TBD	TBD
5	7/1/15 to 12/31/15	TBD	TBD
6	1/1/16 to 6/30/16	TBD	TBD
7	7/1/16 to 12/31/16	TBD	TBD
8	1/1/17 to 6/30/17	TBD	TBD
9	7/1/17 to 12/31/17	TBD	TBD
10*	1/1/18 to 6/30/18	TBD	TBD
11*	7/1/18 to 12/31/18	TBD	TBD
12*	1/1/19 to 6/30/19	TBD	TBD
13*	7/1/19 to 12/31/19	TBD	TBD
14*	1/1/20 to 6/30/20	TBD	TBD
15*	7/1/20 to 12/31/20	TBD	TBD
16*	1/1/21 to 6/30/21	TBD	TBD
17*	7/1/21 to 12/31/21	TBD	TBD
18*	1/1/22 to 4/30/22	TBD	TBD

The maximum award fee available for each period is based upon the condition that NASA authorizes the dollar amount of work as identified in B.4 Estimated Cost and Award Fee. JETS and NASA shall confirm that the Award Fee pool is appropriate for the work authorized for the current Award Fee Period and shall adjust the Award Fee allocations as appropriate at the end of the award fee period minus thirty days before each Award Fee period end-date. JETS shall maintain a log of work authorized during the Award Fee period and shall submit that log to JSC approximately at the end of the award fee period minus thirty days prior to award fee period end-dates noted in the Award Fee Distribution.

Note: These amounts are based upon current work authorized as of (FILL IN DATE). It is anticipated that as additional work is added and/or deleted, then the out periods will be adjusted at or near the end of the award fee period.

* These periods are only applicable if Option 1 and 2 are exercised.

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1. CONTRACT D CODE		PAGE OF PAGES 1 2									
2. AMENDMENT/MODIFICATION NO. 000026		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)									
6. ISSUED BY NASA/Johnson Space Center Attn: Lawrence Miller/BH2 2101 NASA Parkway Houston TX 77058-3696		CODE JSC		7. ADMINISTERED BY (If other than Item 6) NASA/Johnson Space Center Attn: Lawrence Miller/BH2 281.483.3916 lawrence.l.miller@nasa.gov 2101 NASA Parkway Houston TX 77058-3696		CODE JSC									
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) JACOBS 600 WILLIAM NORTHERN BLVD TULLAHOMA TN 37388-4729				(x)											
				9A. AMENDMENT OF SOLICITATION NO.											
				9B. DATED (SEE ITEM 11)											
				x 10A. MODIFICATION OF CONTRACT/ORDER NO. NNJ13HA01C											
				10B. DATED (SEE ITEM 13) 02/08/2013											
CODE 07486		FACILITY CODE													
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS															
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.															
12. ACCOUNTING AND APPROPRIATION DATA (If required) See Schedule				Net Decrease:		-\$357,977.99									
13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.															
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:10%;">CHECK ONE</td> <td>A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.</td> </tr> <tr> <td></td> <td>B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).</td> </tr> <tr> <td></td> <td>C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:</td> </tr> <tr> <td>X</td> <td>D. OTHER (Specify type of modification and authority) FAR 52.232-22 Limitation of Funds</td> </tr> </table>								CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.		B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).		C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:	X	D. OTHER (Specify type of modification and authority) FAR 52.232-22 Limitation of Funds
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.														
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).														
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:														
X	D. OTHER (Specify type of modification and authority) FAR 52.232-22 Limitation of Funds														
E. IMPORTANT Contractor <input checked="" type="checkbox"/> is not. <input type="checkbox"/> is required to sign this document and return _____ copies to the issuing office.															
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.) The purpose of this modification is to 1) decrease contract funding from \$99,205,090.80 to \$98,847,112.81, a decrease of \$357,977.99; and 2) update contract clause B.5, Contract Funding (see page 2). Payment Terms: Net 30 days Delivery Location Code: JSC NASA/Johnson Space Center 2101 NASA Parkway Houston TX 77058-3696 USA FOB: Destination															
Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.															
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Adrian Clayton											
15B. CONTRACTOR/OFFEROR _____ (Signature of person authorized to sign)		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA <i>Adrian D. Clayton</i> (Signature of Contracting Officer)		16C. DATE SIGNED									

B.3 CONTRACT PHASE-IN (FIRM-FIXED PRICE)

The total firm fixed price of all phase-in effort for this contract is (b) (4) covering a 60-calendar day phase-in period from **March 1, 2013** through **April 30, 2013**.

(End of clause)

B.5 CONTRACT FUNDING (NFS 1852.232-81) (JUN 1990)

(a) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds clause, the total amount allotted by the Government to this contract is (b) (4). This allotment is for JSC Engineering, Technology and Science (JETS) efforts at NASA/JSC and covers the following estimated period of performance: May 1, 2013 through **December 18, 2013**.

(b) An additional amount of (b) (4) is obligated under this contract for payment of fee.

(End of clause)

Funding recapitulation (included for administrative purposes only):

TOTAL			
	Prior Funding Thru Mod 25	Current Action Mod 26	Total Funding Thru Mod 26
Cost	(b) (4)		
Fee			
FFP			
Total	\$99,205,090.80	(\$357,977.99)	\$98,847,112.81

DE-OBLIGATIONS				
PR #	PLI	ALI	WBS Element	Amount
4200463007	2	35	401769.06.06.01.02.30.01	\$ 15,538.04
4200478580	1	74	573754.01.01.01.03.02	\$ 6,000.00
4200478613	3	35	964946.02.12.01.43	\$ 20,054.46
4200485589	1	3	295670.01.06.02.25	\$ 936.00
4200485670	3	22	401769.06.06.01.02.10	\$ 6,876.00
4200485670	3	54	869021.05.05.01.17	\$ 5,798.60
4200489606	1	37	279585.04.01.72	\$ 24,543.42
4200489606	1	39	747797.06.13.05.99.10	\$ 4,000.00
4200491520	1	22	411672.10.05.01	\$ 6,958.83
4200491520	1	35	902152.01.05.01	\$ 21,013.56
4200491593	3	16	401769.06.01.02.23.01	\$ 360.00
4200492655	1	33	760231.05.08.05.10	\$ 50,000.00
4200492655	1	34	747797.06.13.05.99.10	\$ 56,131.71
4200494388	1	58	432938.11.01.05.01.02	\$ 56,366.32
4200494388	1	67	401769.06.08.02.03.02	\$ 3,300.00
4200494388	1	89	573754.01.01.01.40.02	\$ 80,101.05
Total				\$ (357,977.99)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT D CODE		PAGE OF PAGES	
				1 2	
2. AMENDMENT/MODIFICATION NO. A00027		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO.	
6. ISSUED BY NASA/Johnson Space Center Attn: Lawrence Miller/BH2 2101 NASA Parkway Houston TX 77058-3696		CODE JSC		5. PROJECT NO. (If applicable)	
		7. ADMINISTERED BY (If other than Item 6) NASA/Johnson Space Center Attn: Lawrence Miller/BH2 281.483.3916 lawrence.l.miller@nasa.gov 2101 NASA Parkway Houston TX 77058-3696		CODE JSC	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) JACOBS 600 WILLIAM NORTHERN BLVD TULLAHOMA TN 37388-4729		(x)		9A. AMENDMENT OF SOLICITATION NO.	
				9B. DATED (SEE ITEM 11)	
		x		10A. MODIFICATION OF CONTRACT/ORDER NO. NNJ13HA01C	
				10B. DATED (SEE ITEM 13) 02/08/2013	
CODE 07486		FACILITY CODE			

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended ☐ is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)
See Schedule

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) FAR 52.232-22 Limitation of Funds

E. IMPORTANT Contractor ☒ is not. ☐ is required to sign this document and return _____ 0 _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)
The purpose of this modification is to 1) increase contract funding from \$98,847,112.81 to \$108,991,993.35, an increase of \$10,144,880.54; and 2) update contract clause B.5, Contract Funding (see page 2).
Payment Terms:
Net 30 days

Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Adrian Clayton	
15B. CONTRACTOR/OFFEROR _____ (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA _____ (Signature of Contracting Officer)	16C. DATE SIGNED

B.3 CONTRACT PHASE-IN (FIRM-FIXED PRICE)

The total firm fixed price of all phase-in effort for this contract is (b) (4) covering a 60-calendar day phase-in period from **March 1, 2013** through **April 30, 2013**.

(End of clause)

B.5 CONTRACT FUNDING (NFS 1852.232-81) (JUN 1990)

(a) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds clause, the total amount allotted by the Government to this contract is (b) (4). This allotment is for JSC Engineering, Technology and Science (JETS) efforts at NASA/JSC and covers the following estimated period of performance: May 1, 2013 through **January 31, 2014**.

(b) An additional amount of (b) (4) is obligated under this contract for payment of fee.

(End of clause)

Funding recapitulation (included for administrative purposes only):

TOTAL			
	Prior Funding Thru Mod 26	Current Action Mod 27	Total Funding Thru Mod 27
Cost Fee FFP	(b) (4)		
Total	\$98,847,112.81	\$10,144,880.54	\$108,991,993.35

OBLIGATIONS	
PR	Amount
4200496664	\$5,025,356.91
4200496783	\$5,119,523.63
Total	\$10,144,880.54

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT D CODE		PAGE OF PAGES	
				1 2	
2. AMENDMENT/MODIFICATION NO. 000028		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO. 4200496673	
6. ISSUED BY NASA/Johnson Space Center Attn: Lawrence Miller/BH2 2101 NASA Parkway Houston TX 77058-3696		CODE JSC		5. PROJECT NO. (If applicable)	
		7. ADMINISTERED BY (If other than Item 6) NASA/Johnson Space Center Attn: Lawrence Miller/BH2 281.483.3916 lawrence.l.miller@nasa.gov 2101 NASA Parkway Houston TX 77058-3696		CODE JSC	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) JACOBS 600 WILLIAM NORTHERN BLVD TULLAHOMA TN 37388-4729		(X)		9A. AMENDMENT OF SOLICITATION NO.	
				9B. DATED (SEE ITEM 11)	
		X		10A. MODIFICATION OF CONTRACT/ORDER NO. NNJ13HA01C	
				10B. DATED (SEE ITEM 13) 02/08/2013	
CODE 07486		FACILITY CODE			

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended ☐ is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)
See Schedule Net Increase: \$7,403,824.93

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) FAR 52.232-22 Limitation of Funds

E. IMPORTANT Contractor ☒ is not, ☐ is required to sign this document and return _____ 0 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

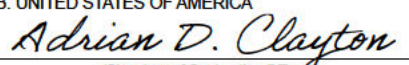
The purpose of this modification is to 1) increase contract funding from \$108,641,993.35 to \$116,395,818.28, a increase of \$7,403,824.93; and 2) update contract clause B.5, Contract Funding (see page 2).

Payment Terms:

Net 30 days

FOB: Destination

Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Adrian Clayton	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA  (Signature of Contracting Officer)	16C. DATE SIGNED 11/27/2013

B.3 CONTRACT PHASE-IN (FIRM-FIXED PRICE)

The total firm fixed price of all phase-in effort for this contract is (b) (4) covering a 60-calendar day phase-in period from **March 1, 2013** through **April 30, 2013**.

(End of clause)

B.5 CONTRACT FUNDING (NFS 1852.232-81) (JUN 1990)

(a) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds clause, the total amount allotted by the Government to this contract is (b) (4). This allotment is for JSC Engineering, Technology and Science (JETS) efforts at NASA/JSC and covers the following estimated period of performance: May 1, 2013 through **January 31, 2014**.

(b) An additional amount of (b) (4) is obligated under this contract for payment of fee.

(End of clause)

Funding recapitulation (included for administrative purposes only):

TOTAL			
	Prior Funding Thru Mod 25	Current Action Mod 26	Total Funding Thru Mod 26
Cost Fee FFP	(b) (4)		
Total	\$108,991,993.35	\$7,403,824.93	\$116,395,818.28

OBLIGATIONS	
PR	Amount
4200496673	\$7,403,824.93
Total	\$7,403,824.93

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT D CODE		PAGE OF PAGES 1 2	
2. AMENDMENT/MODIFICATION NO. 000029		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO.	
6. ISSUED BY NASA/Johnson Space Center Attn: Lawrence Miller/BH2 2101 NASA Parkway Houston TX 77058-3696		CODE JSC		5. PROJECT NO. (If applicable)	
		7. ADMINISTERED BY (If other than Item 6) NASA/Johnson Space Center Attn: Lawrence Miller/BH2 281.483.3916 lawrence.l.miller@nasa.gov 2101 NASA Parkway Houston TX 77058-3696		CODE JSC	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) JACOBS 600 WILLIAM NORTHERN BLVD TULLAHOMA TN 37388-4729		(X)		9A. AMENDMENT OF SOLICITATION NO.	
				9B. DATED (SEE ITEM 11)	
		X		10A. MODIFICATION OF CONTRACT/ORDER NO. NNJ13HA01C	
				10B. DATED (SEE ITEM 13) 02/08/2013	
CODE 07486		FACILITY CODE			

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended ☐ is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)
See Schedule Net Decrease: -\$59,361.44

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) FAR 52.232-22 Limitation of Funds

E. IMPORTANT Contractor ☒ is not, ☐ is required to sign this document and return _____ 0 _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

The purpose of this modification is to 1) decrease contract funding from \$116,395,818.28 to \$116,336,456.84, a decrease of \$59,361.44; and 2) update contract clause B.5, Contract Funding (see page 2).

Payment Terms:

Net 30 days

FOB: Destination

Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Miyoshi J. Thompson	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA Miyoshi Thompson (Signature of Contracting Officer)	16C. DATE SIGNED 12/18/2013

B.3 CONTRACT PHASE-IN (FIRM-FIXED PRICE)

The total firm fixed price of all phase-in effort for this contract is (b) (4) covering a 60-calendar day phase-in period from **March 1, 2013** through **April 30, 2013**.

(End of clause)

B.5 CONTRACT FUNDING (NFS 1852.232-81) (JUN 1990)

(a) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds clause, the total amount allotted by the Government to this contract is (b) (4). This allotment is for JSC Engineering, Technology and Science (JETS) efforts at NASA/JSC and covers the following estimated period of performance: May 1, 2013 through **January 31, 2014**.

(b) An additional amount of (b) (4) is obligated under this contract for payment of fee.

(End of clause)

Funding recapitulation (included for administrative purposes only):

TOTAL			
	Prior Funding Thru Mod 28	Current Action Mod 29	Total Funding Thru Mod 29
Cost Fee FFP	(b) (4)		
Total	\$116,395,818.28	(\$59,361.44)	\$116,336,456.84

DE-OBLIGATIONS				
PR #	PLI	ALI	WBS Element	Amount
4200494388	1	87	769347.05.08.14.02.04	\$ 15,000.00
4200496664	1	59	269655.04.02.02.06	\$ 3,694.44
4200496783	2	12	647280.04.03.01	\$ 27,500.00
4200496783	2	55	769347.05.08.24.03.05	\$ 13,167.00
Total				\$ (59,361.44)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT D CODE		PAGE OF PAGES 1 2	
2. AMENDMENT/MODIFICATION NO. 000030		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO. See Schedule	
6. ISSUED BY NASA/Johnson Space Center Attn: Lawrence Miller/BH2 2101 NASA Parkway Houston TX 77058-3696		CODE JSC		5. PROJECT NO. (If applicable) JSC	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) JACOBS 600 WILLIAM NORTHERN BLVD TULLAHOMA TN 37388-4729		(X)		9A. AMENDMENT OF SOLICITATION NO.	
CODE 07486		FACILITY CODE		9B. DATED (SEE ITEM 11)	
		X		10A. MODIFICATION OF CONTRACT/ORDER NO. NNJ13HA01C	
				10B. DATED (SEE ITEM 13) 02/08/2013	
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS					
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.					
12. ACCOUNTING AND APPROPRIATION DATA (If required) See Schedule		Net Increase:		\$8,577,326.85	
13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.					
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.				
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).				
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:				
X	D. OTHER (Specify type of modification and authority) FAR 52.232-22 Limitation of Funds				
E. IMPORTANT Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.					
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.) The purpose of this modification is to 1) increase contract funding from \$116,336,456.84 to \$124,913,783.69, a increase of \$8,577,326.85; and 2) update contract clause B.5, Contract Funding (see page 2). Payment Terms: Net 30 days FOB: Destination					
15A. NAME AND TITLE OF SIGNER (Type or print)			16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)		
			Miyoshi J. Thompson		
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA	
(Signature of person authorized to sign)				 (Signature of Contracting Officer)	
				16C. DATE SIGNED 12/18/2013	

Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.

NSN 7540-01-152-8070

Previous edition unusable

STANDARD FORM 30 (REV. 10-83)
Prescribed by GSA
FAR (48 CFR) 53.243

B.3 CONTRACT PHASE-IN (FIRM-FIXED PRICE)

The total firm fixed price of all phase-in effort for this contract is (b) (4) covering a 60-calendar day phase-in period from **March 1, 2013** through **April 30, 2013**.

(End of clause)

B.5 CONTRACT FUNDING (NFS 1852.232-81) (JUN 1990)

(a) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds clause, the total amount allotted by the Government to this contract is (b) (4). This allotment is for JSC Engineering, Technology and Science (JETS) efforts at NASA/JSC and covers the following estimated period of performance: May 1, 2013 through **February 19, 2014**.

(b) An additional amount of (b) (4) is obligated under this contract for payment of fee.

(End of clause)

Funding recapitulation (included for administrative purposes only):

TOTAL			
	Prior Funding Thru Mod 29	Current Action Mod 30	Total Funding Thru Mod 30
Cost	(b) (4)		
Fee			
FFP			
Total	\$116,336,456.84	\$8,577,326.85	\$124,913,783.69

OBLIGATIONS	
PR	Amount
4200498652	\$6,627,910.64
4200498653	\$1,949,416.21
Total	\$8,577,326.85

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT D CODE		PAGE OF PAGES 1 2	
2. AMENDMENT/MODIFICATION NO. 000031		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO. See Schedule	
5. PROJECT NO. (If applicable)		6. ISSUED BY NASA/Johnson Space Center Attn: Lawrence Miller/BH2 2101 NASA Parkway Houston TX 77058-3696		7. ADMINISTERED BY (If other than Item 6) NASA/Johnson Space Center Attn: Lawrence Miller/BH2 281.483.3916 lawrence.l.miller@nasa.gov 2101 NASA Parkway Houston TX 77058-3696	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) JACOBS 600 WILLIAM NORTHERN BLVD TULLAHOMA TN 37388-4729		9A. AMENDMENT OF SOLICITATION NO. (x)		9B. DATED (SEE ITEM 11)	
10A. MODIFICATION OF CONTRACT/ORDER NO. NNJ13HA01C		10B. DATED (SEE ITEM 13) 02/08/2013		10C. DATED (SEE ITEM 13) 02/08/2013	
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS		11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS		11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS	

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended ☐ is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)
See Schedule
Net Increase: \$4,820,794.39

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) FAR 52.232-22 Limitation of Funds

E. IMPORTANT Contractor ☒ is not. ☐ is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

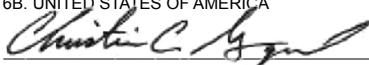
The purpose of this modification is to 1) increase contract funding from \$124,913,783.69 to \$129,734,578.08, a increase of \$4,820,794.39; and 2) update contract clause B.5, Contract Funding (see page 2).

Payment Terms:

Net 30 days

FOB: Destination

Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Christian C. Gaspard	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA  (Signature of Contracting Officer)	16C. DATE SIGNED 1/13/2014

B.3 CONTRACT PHASE-IN (FIRM-FIXED PRICE)

The total firm fixed price of all phase-in effort for this contract is (b) (4) covering a 60-calendar day phase-in period from **March 1, 2013** through **April 30, 2013**.

(End of clause)

B.5 CONTRACT FUNDING (NFS 1852.232-81) (JUN 1990)

(a) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds clause, the total amount allotted by the Government to this contract is (b) (4). This allotment is for JSC Engineering, Technology and Science (JETS) efforts at NASA/JSC and covers the following estimated period of performance: May 1, 2013 through **March 06, 2014**.

(b) An additional amount of (b) (4) is obligated under this contract for payment of fee.

(End of clause)

Funding recapitulation (included for administrative purposes only):

TOTAL			
	Prior Funding Thru Mod 30	Current Action Mod 31	Total Funding Thru Mod 31
Cost Fee FFP	(b) (4)		
Total	\$124,913,783.69	\$4,820,794.39	\$129,734,578.08

OBLIGATIONS	
PR	Amount
4200500324	\$4,091,887.39
4200500329	\$728,907.00
Total	\$4,820,794.39

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE		PAGE OF PAGES 1 6	
2. AMENDMENT/MODIFICATION NO. 000032		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO.	
5. PROJECT NO. (If applicable)		6. ISSUED BY NASA/Johnson Space Center Attn: Lawrence Miller/BH2 2101 NASA Parkway Houston TX 77058-3696		7. ADMINISTERED BY (If other than Item 6) NASA/Johnson Space Center Attn: Lawrence Miller/BH2 281.483.3916 lawrence.l.miller@nasa.gov 2101 NASA Parkway Houston TX 77058-3696	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) JACOBS 600 WILLIAM NORTHERN BLVD TULLAHOMA TN 37388-4729		9A. AMENDMENT OF SOLICITATION NO. (x)		9B. DATED (SEE ITEM 11)	
CODE 07486 FACILITY CODE		10A. MODIFICATION OF CONTRACT/ORDER NO. x NNJ13HA01C		10B. DATED (SEE ITEM 13) 02/08/2013	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended, ☐ is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

See Schedule

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) Mutual Agreement of Both Parties

E. IMPORTANT: Contractor ☐ is not, ☒ is required to sign this document and return 2 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

The purpose of this modification is to update 1) Section H.17-Associate contractor Agreements (ACA) For JETS Activities 2) Section J.2- DRL & DRD and 3) Section J.25- EA/KA Facility Information. See attached pages for additional details.

All other terms and conditions in this contract remain unchanged.

Payment Terms:

Net 30 days

Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print) Lon F. Miller / Sr. Vice President and General Manager		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Christian C. Gaspard	
15B. CONTRACTOR/OFFEROR  (Signature of person authorized to sign)	15C. DATE SIGNED 2/3/14	16B. UNITED STATES OF AMERICA  (Signature of Contracting Officer)	16C. DATE SIGNED 2/3/2014

The clauses below were updated in Sections H.17 and Section J-2 & J-25 of the contract:

H. 17 ASSOCIATE CONTRACTOR AGREEMENTS (ACA) FOR JETS ACTIVITIES

(a) The success of the JETS Contract is dependent on the efforts of multiple Contractors. At a minimum, the Contractor shall develop, maintain and adhere to ACAs with the following contracts and their successors:

i. The contractor that provides facility services and maintenance at JSC

FSS – Facility Support Services

ii. The other contractors that provides support to the JSC Engineering Directorate.

EFS – Engineering Fabrication Services Contract

CRAVE II – Crew, Robotics, Avionics and Vehicle Equipment (Excluding ATK Contract)

iii. Contracts supporting other directorates, programs and offices at JSC which may interface with JETS

CEV – Orion Crew Exploration Vehicle Contract

The Contractor shall develop, maintain and adhere to ACA's with any other interfaces the Contractor deems necessary to avoid negatively impacting the JETS contract work.

The Contractor shall make all ACAs available to the JETS Contracting Officer (CO) and Contracting Officer's Technical Representative (COTR).

(b) The Contractor shall document agreements with other associate Contractors described in (a) above via Associate Contractor Agreements. The Government will not be a party in such Associate Contractor Agreements. All costs associated with such agreements are included in the negotiated price of this contract. Any additional ACA required shall be developed, modified and kept current at no additional cost to the Government. In order to achieve efficient and effective implementation of JETS operations; the Contractor shall establish the means for coordination and exchange of information with associate Contractors. The information to be exchanged shall be that required by the Contractors in the execution of their respective contract requirements. The Contractors are strongly encouraged to seek out and foster cooperative efforts that will benefit JETS with increased safety, efficiency, and productivity.

(c) The Contractor is not relieved of any contract requirements or entitled to any adjustments to the contract terms because of the failure to resolve a disagreement with an associate Contractor. Liability for the improper disclosure of any proprietary data contained in or referenced by any agreement shall rest with the parties to the agreement, and not the Government.

(d) A copy of the ACA shall be provided to the Contracting Officer within 30-days after agreement is reached.

(End of clause)

J-25 EA/KA Facility Information

Division	<u>Facility Name</u>	Bldg	Room #s	Description	<u>Expected Contract Start Rediness Level</u>
ES	<u>Manufacturing Facility (managed by Sierra Lobo, Inc. under the Engineering Fabrication Services Contract)</u> <u>[Only for the period of August 19, 2013 through August 31, 2014]</u>	9S & 10	ALL	Provides resources necessary to produce flight, ground support, & prototype hardware. Expertise in precision machining, sheet metal fabrication, welding, cleaning, coatings, soft goods, metal finishing, heat treating, models & plastics, & assembly.	<u>N/A</u>

(End of clause)

J-2 DRL and DRD's**SECTION 1.2 – Business Processes**

1. Line item no. BP-01	2. DRD Title NASA Contractor Financial Management Report	3. Frequency MO	4. As-of-date See DRD	5. 1st subm. date Contract start + 30 days	6. Copies a. Type E b. Number 3		
7. Data type: <input type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request							
8. Distribution 1) Electronic copy delivered to the DDMS. 2) Hard copy submitted to CO. 3) Electronic copy submitted to LE/Contract Business Management. 4) Electronic copy submitted to LF6/Cost Accounting.		9. Remarks Blocks 6b & 8: A Year-end Hard Copy submitted to LE/Contract Business Manager.					
1. Line item no. BP-02	2. DRD Title Data Management Plan	3. Frequency RT	4. As-of-date --	5. 1st subm. date Contract start + 30 days	6. Copies a. Type E b. Number 1		
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request							
8. Distribution Electronic copy delivered to the DDMS.		9. Remarks - Annual review required. Block 3: Update as needed from annual review.					
1. Line item no. BP-03	2. DRD Title Flight Products Configuration Management Plan	3. Frequency RT	4. As-of-date --	5. 1st subm. date Contract start + 45 days	6. Copies a. Type E b. Number 1		
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request							
8. Distribution Electronic copy delivered to the DDMS.		9. Remarks Block 3: Update as required or as needed from annual review.					
1. Line item no. BP-04	2. DRD Title Financial Reporting Contractor-Held Property	3. Frequency MO	4. As-of-date --	5. 1st subm. date March 2014 Submission	6. Copies a. Type E b. Number 1		
7. Data type: <input type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request							
8. Distribution Electronic delivery via the instructions within the DRD.		9. Remarks					

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC -STD-123. See work page for instructions.)

1. DRD Title Financial Reporting Contractor-Held Property	2. Date of current version 06/24/13	3. DRL Line Item No. BP-06	RFP/Contract No. (Procurement completes) NNJ13HA01C
4. Use (Define need for, intended use of, and/or anticipated results of data) Report NASA Property in the Custody of Contractors on both a monthly and annual basis.			5. DRD Category: (check one) <input type="checkbox"/> Technical <input checked="" type="checkbox"/> Administrative <input type="checkbox"/> SR&QA
6. References (Optional) NASA FAR Supplement Subpart 1845.7101		7. Interrelationships (e.g., with other DRDs) (Optional)	

Submission:

a. The due date for the Monthly Property Financial Reporting submission is the 21st day after the close of the previous month, except for the month of September which is due the 15th day, beginning at the first month after contract start. Example due dates for the monthly submission are as follows:

August 21 for the month ending July 31

September 21 for the month ending August 31

October 15 for the month ending September 30

b. The due date for Annual Property Reporting via NASA Form (NF) 1018 is October 15 reflecting data from October 1 the previous year to September 30 the current year.

c. All reports shall be submitted electronically.

Data Preparation Information:

a. Monthly Property Financial Reports are required to be submitted using the format located at the URL referenced in paragraph below. Monthly Financial Reports will be submitted in accordance with PIC 04-12.

b. Annual Property NF 1018 reports shall be submitted using the NF 1018 Electronic Submission System (NESS). The NF1018 report provides annual summary-level property management and financial data on Government-furnished and contractor-acquired NASA property.

c. The NF1018 shall be completed in accordance with NASA FAR Supplement Subpart 1845.7101 and any supplemental guidance provided by NASA. Contents:

Monthly Property Financial Reports

a. Monthly property financial reports are required with item level supporting data. This data shall be submitted for all items with an acquisition cost of \$100,000 or more, in the contractor's and its subcontractors' possession, in the following classifications: real property, equipment, special test equipment, special tooling, and agency peculiar property. Monthly reporting is not required for property in the above classifications with an acquisition cost under \$100,000. Monthly data shall also be submitted for items of any acquisition cost in the classifications of materials and contract work-in-process (WIP).

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC –STD-123. See work page for instructions.)

Itemized monthly data is required for materials and WIP line items of \$100,000 and over. Summary monthly data is required for materials and WIP line items under \$100,000. The monthly reports shall be electronically submitted using the Contractor-Held Asset Tracking System (CHATS) (<http://nasachats.gsfc.nasa.gov>) using the format described in the CHATS user's manual.

b. Acquisition costs shall be developed using actual costs to the greatest extent possible, especially costs directly related to fabrication such as labor and materials. Supporting documentation shall be maintained and available for all amounts reported, including any amounts developed using estimating techniques.

c. All Adjustments shall be thoroughly explained and directly related to a specific fiscal year. If the fiscal year cannot be determined, the default shall be the previous fiscal year. Adjustments to the monthly report must be coordinated with JSC Finance.

d. Work Breakdown Structure (WBS) is NOT required for Contractor acquired property (CAP), WIP, and any new materials acquired.

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC -STD-123. See work page for instructions.)

Instructions for Completing JSC Form 2341

General. JSC Form 2341 will be prepared to describe the content and provide preparation information for data required to support of JSC programs. For more detailed instructions, see JSC STD-123.

1. **DRD Title.** Enter the title of data or document required. The title should include a principal noun which best establishes the basic concept of the data.
2. **Date of current DRD version.** If an existing DRD is revised, enter the revision date. For a new DRD, enter origination date.
3. **DRL Line Item.** Enter the individual line item number from block 1 of JSC Form 2323, "JSC Data Requirements List," as completed for a specific procurement.

RFP/Contract No. The assigned procurement office enters the number of the specific procurement document to which the DRD is attached.

4. **Use.** Enter a synopsis of the intended use of the document. Include the reason for the requirement and identify the using organization if necessary.
5. **DRD Category.** Check the type of information described. SR&QA DRD's must be approved by a representative of the JSC Safety, Reliability, and Quality Assurance Office.
6. **References (Optional).** List applicable documents (NASA or JSC manuals, military specifications, Federal standards, NASA procurement regulations, etc.) containing additional information concerning the data requirements. If original DRD refers to obsolete documents, these should be deleted when the DRD is revised.
7. **Interrelationships (Optional).** Enter other data requirements or passages in the same SOW that will affect or be affected by this DRD. References to paragraphs in the SOW may not be substituted for the information in block 8.
8. **Preparation Information.** Provide instructions for preparation of the data required. JSC STD-123 contains suggestions for completing this section.

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT D CODE		PAGE OF PAGES 1 2	
2. AMENDMENT/MODIFICATION NO. 000033		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO.	
6. ISSUED BY NASA/Johnson Space Center Attn: Lawrence Miller/BH2 2101 NASA Parkway Houston TX 77058-3696		CODE JSC		5. PROJECT NO. (If applicable) JSC	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) JACOBS 600 WILLIAM NORTHERN BLVD TULLAHOMA TN 37388-4729		(x)		9A. AMENDMENT OF SOLICITATION NO.	
CODE 07486		FACILITY CODE		9B. DATED (SEE ITEM 11)	
		x		10A. MODIFICATION OF CONTRACT/ORDER NO. NNJ13HA01C	
				10B. DATED (SEE ITEM 13) 02/08/2013	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended ☐ is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required) Net Decrease: -\$507,745.63
See Schedule

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) FAR 52.232-22 Limitation of Funds

E. IMPORTANT Contractor ☒ is not. ☐ is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)


The purpose of this modification is to 1) decrease contract funding from \$129,734,578.08 to \$129,226,832.45, a decrease of \$507,745.63; and 2) update contract clause B.5, Contract Funding (see page 2).

Payment Terms:

Net 30 days

FOB: Destination

Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Christian C. Gaspard	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA  (Signature of Contracting Officer)	16C. DATE SIGNED 2/5/2014

B.3 CONTRACT PHASE-IN (FIRM-FIXED PRICE)

The total firm fixed price of all phase-in effort for this contract is (b) (4) covering a 60-calendar day phase-in period from **March 1, 2013** through **April 30, 2013**.

(End of clause)

B.5 CONTRACT FUNDING (NFS 1852.232-81) (JUN 1990)

(a) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds clause, the total amount allotted by the Government to this contract is (b) (4). This allotment is for JSC Engineering, Technology and Science (JETS) efforts at NASA/JSC and covers the following estimated period of performance: May 1, 2013 through **March 06, 2014**.


(b) An additional amount of (b) (4) is obligated under this contract for payment of fee.

(End of clause)

Funding recapitulation (included for administrative purposes only):

TOTAL			
	Prior Funding Thru Mod 32	Current Action Mod 33	Total Funding Thru Mod 33
Cost	(b) (4)		
Fee			
FFP			
Total	\$129,734,578.08	(\$507,745.63)	\$129,226,832.45

DE-OBLIGATIONS				
PR #	PLI	ALI	WBS Element	Amount
4200492655	1	37	871056.06.02.01.09.01	\$ 246,000.15
4200494388	1	81	747797.06.13.06.20.10	\$ 52,140.47
4200496664	1	64	401769.06.06.01.02.10	\$ 90,000.00
4200496664	1	87	747797.01.02.99.10	\$ 53,880.06
4200496673	1	41	401769.06.06.01.02.29.02	\$ 3,360.00
4200498652	1	18	804911.02.05.1551.13	\$ 4,183.19
4200498652	1	35	811540.03.03.05.01	\$ 5,322.23
4200498652	1	38	747797.06.13.06.20.10	\$ 42,859.53
4200498652	1	48	203950.04.04.01	\$ 10,000.00
Total				\$ (507,745.63)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1. CONTRACT D CODE		PAGE OF PAGES	
						1 2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
000034		See Block 16C		See Schedule			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		JSC				JSC	
NASA/Johnson Space Center Attn: Lawrence Miller/BH2 2101 NASA Parkway Houston TX 77058-3696				NASA/Johnson Space Center Attn: Lawrence Miller/BH2 281.483.3916 lawrence.l.miller@nasa.gov 2101 NASA Parkway Houston TX 77058-3696			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
JACOBS 600 WILLIAM NORTHERN BLVD TULLAHOMA TN 37388-4729							
				9B. DATED (SEE ITEM 11)			
				x 10A. MODIFICATION OF CONTRACT/ORDER NO. NNJ13HA01C			
				10B. DATED (SEE ITEM 13)			
CODE 07486		FACILITY CODE		02/08/2013			
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$8,714,414.04	
See Schedule							
13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) FAR 52.232-22 Limitation of Funds						
E. IMPORTANT Contractor <input checked="" type="checkbox"/> is not. <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
The purpose of this modification is to 1) increase contract funding from \$129,226,832.45 to \$137,941,246.49, a increase of \$8,714,414.04; and 2) update contract clause B.5, Contract Funding (see page 2).							
Payment Terms: Net 30 days FOB: Destination							
Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				Christian C. Gaspard			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
(Signature of person authorized to sign)						02/06/2014	
				(Signature of Contracting Officer)			

B.3 CONTRACT PHASE-IN (FIRM-FIXED PRICE)

The total firm fixed price of all phase-in effort for this contract is (b) (4) covering a 60-calendar day phase-in period from **March 1, 2013** through **April 30, 2013**.

(End of clause)

B.5 CONTRACT FUNDING (NFS 1852.232-81) (JUN 1990)

(a) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds clause, the total amount allotted by the Government to this contract is (b) (4). This allotment is for JSC Engineering, Technology and Science (JETS) efforts at NASA/JSC and covers the following estimated period of performance: May 1, 2013 through **March 24, 2014**.

(b) An additional amount of (b) (4) is obligated under this contract for payment of fee.

(End of clause)

Funding recapitulation (included for administrative purposes only):

TOTAL			
	Prior Funding Thru Mod 33	Current Action Mod 34	Total Funding Thru Mod 34
Cost	(b) (4)		
Fee			
FFP			
Total	\$129,226,832.45	\$8,714,414.04	\$137,941,246.49

OBLIGATIONS	
PR	Amount
4200502140	\$4,553,467.11
4200502162	\$4,160,946.93
Total	\$8,714,414.04

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE		PAGE OF PAGES 1 3	
2. AMENDMENT/MODIFICATION NO. 000035		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO.	
6. ISSUED BY NASA/Johnson Space Center Attn: Lawrence Miller/BH2 2101 NASA Parkway Houston TX 77058-3696		CODE JSC		7. ADMINISTERED BY (If other than Item 6) NASA/Johnson Space Center Attn: Lawrence Miller/BH2 281.483.3916 lawrence.l.miller@nasa.gov 2101 NASA Parkway Houston TX 77058-3696	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) JACOBS 600 WILLIAM NORTHERN BLVD TULLAHOMA TN 37388-4729		(x)		9A. AMENDMENT OF SOLICITATION NO.	
CODE 07486		FACILITY CODE		9B. DATED (SEE ITEM 11)	
		x		10A. MODIFICATION OF CONTRACT/ORDER NO. NNJ13HA01C	
				10B. DATED (SEE ITEM 13) 02/08/2013	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended, ☐ is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

See Schedule

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
x	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: Mutual Agreement of the Parties
	D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor ☐ is not, ☒ is required to sign this document and return 1 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

The purpose of this modification is to recognize earned award fee for the evaluation period May 1, 2013 through December 31, 2013; and 2) update Attachment J-11, Award Fee Plan Appendix 2, to include earned fee for Award Fee Period 1 and the estimated Award Fee Pool for Award Fee Period 2.

Award Fee available for this period: (b) (4)

Award Fee earned: (b) (4)

Less Provisional fee paid: (b) (4)

(reference voucher #4AF)

Net payment due is: (b) (4)

Continued ...

Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print) Lon F. Miller / Sr. Vice President & General Manager		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Christian C. Gaspard	
15B. CONTRACTOR/OFFEROR  (Signature of person authorized to sign)	15C. DATE SIGNED 2/7/14	16B. UNITED STATES OF AMERICA  (Signature of Contracting Officer)	16C. DATE SIGNED 2/7/2014

CONTINUATION SHEET

 REFERENCE NO. OF DOCUMENT BEING CONTINUED
 NNJ13HA01C/000035

PAGE 2 OF 3

 NAME OF OFFEROR OR CONTRACTOR
 JACOBS

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	Payment Terms: Net 30 days				

The clause below was updated in Sections J-11, Appendix 2 of the contract:

AWARD FEE DISTRIBUTION

Period	Dates	Max. Avail. Award Fee	Earned Award Fee
1	5/1/13 to 12/31/13	(b) (4)	(b) (4)
2	1/1/14 to 6/30/14	(b) (4)	TBD
3	7/1/14 to 12/31/14	TBD	TBD
4	1/1/15 to 6/30/15	TBD	TBD
5	7/1/15 to 12/31/15	TBD	TBD
6	1/1/16 to 6/30/16	TBD	TBD
7	7/1/16 to 12/31/16	TBD	TBD
8	1/1/17 to 6/30/17	TBD	TBD
9	7/1/17 to 12/31/17	TBD	TBD
10*	1/1/18 to 6/30/18	TBD	TBD
11*	7/1/18 to 12/31/18	TBD	TBD
12*	1/1/19 to 6/30/19	TBD	TBD
13*	7/1/19 to 12/31/19	TBD	TBD
14*	1/1/20 to 6/30/20	TBD	TBD
15*	7/1/20 to 12/31/20	TBD	TBD
16*	1/1/21 to 6/30/21	TBD	TBD
17*	7/1/21 to 12/31/21	TBD	TBD
18*	1/1/22 to 4/30/22	TBD	TBD

The maximum award fee available for each period is based upon the condition that NASA authorizes the dollar amount of work as identified in B.4 Estimated Cost and Award Fee. JETS and NASA shall confirm that the Award Fee pool is appropriate for the work authorized for the current Award Fee Period and shall adjust the Award Fee allocations as appropriate at the end of the award fee period minus thirty days before each Award Fee period end-date. JETS shall maintain a log of work authorized during the Award Fee period and shall submit that log to JSC approximately at the end of the award fee period minus thirty days prior to award fee period end-dates noted in the Award Fee Distribution.

Note: These amounts are based upon current work authorized as of February 3, 2014. It is anticipated that as additional work is added and/or deleted, then the out periods will be adjusted at or near the end of the award fee period.

* These periods are only applicable if Option 1 and 2 are exercised.

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE		PAGE OF PAGES 1 12	
2. AMENDMENT/MODIFICATION NO. 000036		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO.	
5. PROJECT NO. (If applicable)		6. ISSUED BY CODE JSC		7. ADMINISTERED BY (If other than Item 6) CODE JSC	
NASA/Johnson Space Center Attn: Lawrence Miller/BH2 2101 NASA Parkway Houston TX 77058-3696		NASA/Johnson Space Center Attn: Lawrence Miller/BH2 281.483.3916 lawrence.l.miller@nasa.gov 2101 NASA Parkway Houston TX 77058-3696			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) JACOBS 600 WILLIAM NORTHERN BLVD TULLAHOMA TN 37388-4729		(x) 9A. AMENDMENT OF SOLICITATION NO.		9B. DATED (SEE ITEM 11)	
CODE 07486		FACILITY CODE		10A. MODIFICATION OF CONTRACT/ORDER NO. NNJ13HA01C	
				10B. DATED (SEE ITEM 13) 02/08/2013	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)
See Schedule

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
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X	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: Mutual Agreement of the Parties
	D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor ☐ is not. ☒ is required to sign this document and return 1 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

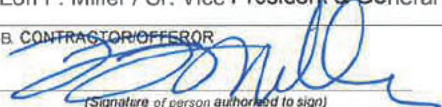

The purpose of this modification is to update Sections I-Contract Clauses, adding the Service Contract Reporting Requirements Clause and updating the Small Business Subcontracting Plan- Alternate II Clause. See attached pages for additional details.

All other terms and conditions in this contract remain unchanged.

Payment Terms:

Net 30 days

Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print) Lon F. Miller / Sr. Vice President & General Manager		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Christian C. Gaspard	
15B. CONTRACTOR/OFFEROR  (Signature of person authorized to sign)	15C. DATE SIGNED 2/12/14	16B. UNITED STATES OF AMERICA  (Signature of Contracting Officer)	16C. DATE SIGNED 2/12/2014

The clause below was updated in Sections I-Contract Clauses, adding the Service Contract Reporting Requirements Clause and updating the Small Business Subcontracting Plan- Alternate II Clause:

I.1 LISTING OF CLAUSES INCORPORATED BY REFERENCE

Clause(s) at the beginning of this Section are incorporated by reference, with the same force and effect as if they were given in full text. Clauses incorporated by reference which require a fill-in by the Government include the text of the affected paragraph(s) only. This does not limit the clause to the affected paragraph(s). The Contractor is responsible for understanding and complying with the entire clause.

I. FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1)

Clause

Number

Date

Title

52.204-15 JAN 2014 SERVICE CONTRACT REPORTING
REQUIREMENTS FOR INDEFINITE-DELIVERY CONTRACT

(End of Clause)

**I.26 Small Business Subcontracting Plan- *Alternate II (Oct 2001)* FAR 52.219-9
(Deviation)**

(a) This clause does not apply to small business concerns.

(b) *Definitions.* As used in this clause—

“Alaska Native Corporation (ANC)” means any Regional Corporation, Village Corporation, Urban Corporation, or Group Corporation organized under the laws of the State of Alaska in accordance with the Alaska Native Claims Settlement Act, as amended (43 U.S.C. 1601, *et seq.*) and which is considered a minority and economically disadvantaged concern under the criteria at 43 U.S.C. 1626(e)(1). This definition also includes ANC direct and indirect subsidiary corporations, joint ventures, and partnerships that meet the requirements of 43 U.S.C. 1626 (e)(2).

“Commercial item” means a product or service that satisfies the definition of commercial item in section 2.101 of the Federal Acquisition Regulation.

“Commercial plan” means a subcontracting plan (including goals) that covers the offeror’s fiscal year and that applies to the entire production of commercial items sold by either the entire company or a portion thereof (*e.g.*, division, plant, or product line).

“Electronic Subcontracting Reporting System (eSRS)” means the Governmentwide, electronic, web-based system for small business subcontracting program reporting. The eSRS is located at <http://www.esrs.gov>.

“Indian tribe” means any Indian tribe, band, group, pueblo, or community, including native villages and native groups (including corporations organized by Kenai, Juneau, Sitka, and Kodiak) as defined in the Alaska Native Claims Settlement Act (43 U.S.C.A. 1601 *et seq.*), that is recognized by the Federal Government as eligible for services from the Bureau of Indian Affairs in accordance with 25 U.S.C. 1452(c). This definition also includes Indian-owned economic enterprises that meet the requirements of 25 U.S.C. 1452(e).

“Individual contract plan” means a subcontracting plan that covers the entire contract period (including option periods), applies to a specific contract, and has goals that are based on the offeror’s planned subcontracting in support of the specific contract except that indirect costs incurred for common or joint purposes may be allocated on a prorated basis to the contract.

“Master plan” means a subcontracting plan that contains all the required elements of an individual contract plan, except goals, and may be incorporated into individual contract plans, provided the master plan has been approved.

“Subcontract” means any agreement (other than one involving an employer-employee relationship) entered into by a Federal Government prime Contractor or subcontractor calling for supplies or services required for performance of the contract or subcontract.

(c) Proposals submitted in response to this solicitation shall include a subcontracting plan that separately addresses subcontracting with small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns. If the offeror is submitting an individual contract plan, the plan must separately address subcontracting with small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns with a separate part for the basic contract and separate parts for each option (if any). The plan shall be included in and made a part of the resultant contract. The subcontracting plan shall be negotiated within the time specified by the Contracting Officer. Failure to submit and negotiate a subcontracting plan shall make the offeror ineligible for award of a contract.

(d) The offeror’s subcontracting plan shall include the following:

(1) Goals, expressed in terms of percentages of total planned subcontracting dollars, for the use of small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns as subcontractors. The offeror shall include all subcontracts that contribute to contract performance, and may include a proportionate share of products and services that are normally allocated as indirect costs. In accordance with 43 U.S.C. 1626:

(i) Subcontracts awarded to an ANC or Indian tribe shall be counted towards the subcontracting goals for small business and small disadvantaged business (SDB) concerns, regardless of the size or Small Business Administration certification status of the ANC or Indian tribe.

(ii) Where one or more subcontractors are in the subcontract tier between the prime contractor and the ANC or Indian tribe, the ANC or Indian tribe shall designate the appropriate contractor(s) to count the subcontract towards its small business and small disadvantaged business subcontracting goals.

(A) In most cases, the appropriate Contractor is the Contractor that awarded the subcontract to the ANC or Indian tribe.

(B) If the ANC or Indian tribe designates more than one Contractor to count the subcontract toward its goals, the ANC or Indian tribe shall designate only a portion of the total subcontract award to each Contractor. The sum of the amounts designated to various Contractors cannot exceed the total value of the subcontract.

(C) The ANC or Indian tribe shall give a copy of the written designation to the Contracting Officer, the prime Contractor, and the subcontractors in between the prime Contractor and the ANC or Indian tribe within 30 days of the date of the subcontract award.

(D) If the Contracting Officer does not receive a copy of the ANC's or the Indian tribe's written designation within 30 days of the subcontract award, the Contractor that awarded the subcontract to the ANC or Indian tribe will be considered the designated Contractor.

(2) A statement of—

(i) Total dollars planned to be subcontracted for an individual contract plan; or the offeror's total projected sales, expressed in dollars, and the total value of projected subcontracts to support the sales for a commercial plan;

(ii) Total dollars planned to be subcontracted to small business concerns (including ANC and Indian tribes);

(iii) Total dollars planned to be subcontracted to veteran-owned small business concerns;

(iv) Total dollars planned to be subcontracted to service-disabled veteran-owned small business;

(v) Total dollars planned to be subcontracted to HUBZone small business concerns;

(vi) Total dollars planned to be subcontracted to small disadvantaged business concerns (including ANCs and Indian tribes); and

(vii) Total dollars planned to be subcontracted to women-owned small business concerns.

(3) A description of the principal types of supplies and services to be subcontracted, and an identification of the types planned for subcontracting to --

(i) Small business concerns,

(ii) Veteran-owned small business concerns;

(iii) Service-disabled veteran-owned small business concerns;

(iv) HUBZone small business concerns;

(v) Small disadvantaged business concerns, and

(vi) Women-owned small business concerns.

(4) A description of the method used to develop the subcontracting goals in paragraph (d)(1) of this clause.

(5) A description of the method used to identify potential sources for solicitation purposes (*e.g.*, existing company source lists, the Central Contractor Registration database (CCR), veterans service organizations, the National Minority Purchasing Council Vendor Information Service, the Research and Information Division of the Minority Business Development Agency in the Department of Commerce, or small, HUBZone, small disadvantaged, and women-owned small business trade associations). A firm may rely on the information contained in CCR as an accurate representation of a concern's size and ownership characteristics for the purposes of maintaining a small, veteran-owned small, service-disabled veteran-owned small, HUBZone small, small disadvantaged, and women-owned small business source list. Use of CCR as its source list does not relieve a firm of its responsibilities (*e.g.*, outreach, assistance, counseling, or publicizing subcontracting opportunities) in this clause.

(6) A statement as to whether or not the offeror included indirect costs in establishing subcontracting goals, and a description of the method used to determine the proportionate share of indirect costs to be incurred with --

(i) Small business concerns (including ANC and Indian tribes);

(ii) Veteran-owned small business concerns;

(iii) Service-disabled veteran-owned small business concerns;

(iv) HUBZone small business concerns;

(v) Small disadvantaged business concerns (including ANC and Indian tribes);
and

(vi) Women-owned small business concerns.

(7) The name of the individual employed by the offeror who will administer the offeror's subcontracting program, and a description of the duties of the individual.

(8) A description of the efforts the offeror will make to assure that small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns have an equitable opportunity to compete for subcontracts.

(9) Assurances that the offeror will include the clause of this contract entitled "Utilization of Small Business Concerns" in all subcontracts that offer further subcontracting opportunities, and that the offeror will require all subcontractors (except small business concerns) that receive subcontracts in excess of \$650,000 (\$1.5 million for construction of any public facility with further subcontracting possibilities) to adopt a plan similar to the plan that complies with the requirements of this clause.

(10) Assurances that the offeror will --

(i) Cooperate in any studies or surveys as may be required;

(ii) Submit periodic reports so that the Government can determine the extent of compliance by the offeror with the subcontracting plan;

(iii) Submit the Individual Subcontracting Report (ISR) and/or the Summary Subcontract Report (SSR), in accordance with the paragraph (l) of this clause using the Electronic Subcontracting Reporting System (eSRS) at <http://www.esrs.gov>. The reports shall provide information on subcontract awards to small business concerns (including ANCs and Indian tribes that are not small businesses), veteran-owned small business concerns, service-disabled veteran-owned small business concerns, HUBZone small business concerns, small disadvantaged business concerns (including ANCs and Indian tribes that have not been certified by the Small Business Administration as small disadvantaged businesses), women-owned small business concerns, and Historically Black Colleges and Universities and Minority Institutions. Reporting shall be in accordance with this clause, or as provided in agency regulations;

(iv) Ensure that its subcontractors with subcontracting plans agree to submit the ISR and/or the SSR using eSRS;

(v) Provide its prime contract number, its DUNS number, and the e-mail address of the offeror's official responsible for acknowledging receipt of or rejecting the ISRs, to all first-tier subcontractors with subcontracting plans so they can enter

this information into the eSRS when submitting their ISRs; and

(vi) Require that each subcontractor with a subcontracting plan provide the prime contract number, its own DUNS number, and the e-mail address of the subcontractor's official responsible for acknowledging receipt of or rejecting the ISRs, to its subcontractors with subcontracting plans.

(11) A description of the types of records that will be maintained concerning procedures that have been adopted to comply with the requirements and goals in the plan, including establishing source lists; and a description of the offeror's efforts to locate small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns and award subcontracts to them. The records shall include at least the following (on a plant-wide or company-wide basis, unless otherwise indicated):

(i) Source lists (*e.g.*, CCR), guides, and other data that identify small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns.

(ii) Organizations contacted in an attempt to locate sources that are small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, or women-owned small business concerns.

(iii) Records on each subcontract solicitation resulting in an award of more than \$150,000, indicating --

(A) Whether small business concerns were solicited and if not, why not;

(B) Whether veteran-owned small business concerns were solicited and, if not, why not;

(C) Whether service-disabled veteran-owned small business concerns were solicited and, if not, why not;

(D) Whether HUBZone small business concerns were solicited and, if not, why not;

(E) Whether small disadvantaged business concerns were solicited and if not, why not;

(F) Whether women-owned small business concerns were solicited and if not, why not; and

(G) If applicable, the reason award was not made to a small business

concern.

(iv) Records of any outreach efforts to contact --

(A) Trade associations;

(B) Business development organizations;

(C) Conferences and trade fairs to locate small, HUBZone small, small disadvantaged, and women-owned small business sources; and

(D) Veterans service organizations.

(v) Records of internal guidance and encouragement provided to buyers through -

(A) Workshops, seminars, training, etc., and

(B) Monitoring performance to evaluate compliance with the program's requirements.

(vi) On a contract-by-contract basis, records to support award data submitted by the offeror to the Government, including the name, address, and business size of each subcontractor. Contractors having commercial plans need not comply with this requirement.

(e) In order to effectively implement this plan to the extent consistent with efficient contract performance, the Contractor shall perform the following functions:

(1) Assist small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns by arranging solicitations, time for the preparation of bids, quantities, specifications, and delivery schedules so as to facilitate the participation by such concerns. Where the Contractor's lists of potential small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business subcontractors are excessively long, reasonable effort shall be made to give all such small business concerns an opportunity to compete over a period of time.

(2) Provide adequate and timely consideration of the potentialities of small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns in all "make-or-buy" decisions.

(3) Counsel and discuss subcontracting opportunities with representatives of small business, veteran-owned small business, service-disabled veteran-owned small business,

HUBZone small business, small disadvantaged business, and women-owned small business firms.

(4) Confirm that a subcontractor representing itself as a HUBZone small business concern is identified as a certified HUBZone small business concern by accessing the Central Contractor Registration (CCR) database or by contacting SBA.

(5) Provide notice to subcontractors concerning penalties and remedies for misrepresentations of business status as small, veteran-owned small business, HUBZone small, small disadvantaged or women-owned small business for the purpose of obtaining a subcontract that is to be included as part or all of a goal contained in the Contractor's subcontracting plan.

(6) For all competitive subcontracts over the simplified acquisition threshold in which a small business concern received a small business preference, upon determination of the successful subcontract offeror, the Contractor must inform each unsuccessful small business subcontract offeror in writing of the name and location of the apparent successful offeror prior to award of the contract.

(f) A master plan on a plant or division-wide basis that contains all the elements required by paragraph (d) of this clause, except goals, may be incorporated by reference as a part of the subcontracting plan required of the offeror by this clause; provided --

(1) The master plan has been approved;

(2) The offeror ensures that the master plan is updated as necessary and provides copies of the approved master plan, including evidence of its approval, to the Contracting Officer; and

(3) Goals and any deviations from the master plan deemed necessary by the Contracting Officer to satisfy the requirements of this contract are set forth in the individual subcontracting plan.

(g) A commercial plan is the preferred type of subcontracting plan for contractors furnishing commercial items. The commercial plan shall relate to the offeror's planned subcontracting generally, for both commercial and Government business, rather than solely to the Government contract. Once the Contractor's commercial plan has been approved, the Government will not require another subcontracting plan from the same Contractor while the plan remains in effect, as long as the product or service being provided by the Contractor continues to meet the definition of a commercial item. A contractor with a commercial plan shall comply with the reporting requirements stated in paragraph (d)(10) of this clause by submitting one SSR in eSRS for all contracts covered by its commercial plan. This report shall be acknowledged or rejected in eSRS by the Contracting Officer who approved the plan. This report shall be submitted within 30 days after the end of the Government's fiscal year.

(h) Prior compliance of the offeror with other such subcontracting plans under previous contracts

will be considered by the Contracting Officer in determining the responsibility of the offeror for award of the contract.

(i) A contract may have no more than one plan. When a modification meets the criteria in 19.702 for a plan, or an option is exercised, the goals associated with the modification or option shall be added to those in the existing subcontract plan.

(j) Subcontracting plans are not required from subcontractors when the prime contract contains the clause at 52.212-5, Contract Terms and Conditions Required to Implement Statutes or Executive Orders—Commercial Items, or when the subcontractor provides a commercial item subject to the clause at 52.244-6, Subcontracts for Commercial Items, under a prime contract.

(k) The failure of the Contractor or subcontractor to comply in good faith with—

(1) The clause of this contract entitled “Utilization Of Small Business Concerns;” or

(2) An approved plan required by this clause, shall be a material breach of the contract.

(l) The Contractor shall submit ISRs and SSRs using the web-based eSRS at <http://www.esrs.gov>. Purchases from a corporation, company, or subdivision that is an affiliate of the prime Contractor or subcontractor are not included in these reports. Subcontract award data reported by prime Contractors and subcontractors shall be limited to awards made to their immediate next-tier subcontractors. Credit cannot be taken for awards made to lower tier subcontractors unless the Contractor or subcontractor has been designated to receive a small business or small disadvantaged business credit from an ANC or Indian tribe. Only subcontracts involving performance in the United States or its outlying areas should be included in these reports with the exception of subcontracts under a contract awarded by the State Department or any other agency that has statutory or regulatory authority to require subcontracting plans for subcontracts performed outside the United States and its outlying areas.

(1) *ISR*. This report is not required for commercial plans. The report is required for each contract containing an individual subcontract plan.

(i) The report shall be submitted semi-annually during contract performance for the periods ending March 31 and September 30. A report is also required for each contract within 30 days of contract completion. Reports are due 30 days after the close of each reporting period, unless otherwise directed by the Contracting Officer. Reports are required when due, regardless of whether there has been any subcontracting activity since the inception of the contract or the previous reporting period.

(ii) When a subcontracting plan contains separate goals for the basic contract and each option, as prescribed by FAR 19.704(c), the dollar goal inserted on this report shall be the sum of the base period through the current option; for example, for a report submitted after the second option is exercised, the dollar goal would be the sum of the goals for the basic contract, the first option, and the second

option.

(iii) The authority to acknowledge receipt or reject the ISR resides—

(A) In the case of the prime Contractor, with the Contracting Officer; and

(B) In the case of a subcontract with a subcontracting plan, with the entity that awarded the subcontract.

(2) *SSR*.

(i) Reports submitted under individual contract plans—

(A) This report encompasses all subcontracting under prime contracts and subcontracts with the awarding agency, regardless of the dollar value of the subcontracts.

(B) The report may be submitted on a corporate, company or subdivision (e.g. plant or division operating as a separate profit center) basis, unless otherwise directed by the agency.

(C) If a prime Contractor and/or subcontractor is performing work for more than one executive agency, a separate report shall be submitted to each executive agency covering only that agency's contracts, provided at least one of that agency's contracts is over \$650,000 (over \$1.5 million for construction of a public facility) and contains a subcontracting plan. For DoD, a consolidated report shall be submitted for all contracts awarded by military departments/agencies and/or subcontracts awarded by DoD prime Contractors. However, for construction and related maintenance and repair, a separate report shall be submitted for each DoD component.

(D) Except for DoD, the report shall be submitted annually for the twelve month period ending September 30. Reports are due 30 days after the close of each reporting period. For DoD, the report shall be submitted semi-annually for the six months ending March 31 and the twelve months ending September 30.

(E) Subcontract awards that are related to work for more than one executive agency shall be appropriately allocated.

(F) The authority to acknowledge or reject SSRs in eSRS, including SSRs submitted by subcontractors with subcontracting plans, resides with the Government agency awarding the prime contracts unless stated otherwise in the contract.

(ii) Reports submitted under a commercial plan—

- (A) The report shall include all subcontract awards under the commercial plan in effect during the Government's fiscal year.
 - (B) The report shall be submitted annually, within thirty days after the end of the Government's fiscal year.
 - (C) If a Contractor has a commercial plan and is performing work for more than one executive agency, the Contractor shall specify the percentage of dollars attributable to each agency from which contracts for commercial items were received.
 - (D) The authority to acknowledge or reject SSRs for commercial plans resides with the Contracting Officer who approved the commercial plan.
- (iii) All reports submitted at the close of each fiscal year (both individual and commercial plans) shall include a Year-End Supplementary Report for Small Disadvantaged Businesses. The report shall include subcontract awards, in whole dollars, to small disadvantaged business concerns by North American Industry Classification System (NAICS) Industry Subsector. If the data are not available when the year-end SSR is submitted, the prime Contractor and/or subcontractor shall submit the Year-End Supplementary Report for Small Disadvantaged Businesses within 90 days of submitting the year-end SSR. For a commercial plan, the Contractor may obtain from each of its subcontractors a predominant NAICS Industry Subsector and report all awards to that subcontractor under its predominant NAICS Industry Subsector.

(End of Clause)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE		PAGE OF PAGES 1 27	
2. AMENDMENT/MODIFICATION NO. 000037		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO.	
5. PROJECT NO. (If applicable)		6. ISSUED BY CODE JSC		7. ADMINISTERED BY (If other than Item 6) CODE JSC	
NASA/Johnson Space Center Attn: Lawrence Miller/BH2 2101 NASA Parkway Houston TX 77058-3696		NASA/Johnson Space Center Attn: Lawrence Miller/BH2 281.483.3916 lawrence.l.miller@nasa.gov 2101 NASA Parkway Houston TX 77058-3696			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) JACOBS 600 WILLIAM NORTHERN BLVD TULLAHOMA TN 37388-4729		(x) 9A. AMENDMENT OF SOLICITATION NO.			
		9B. DATED (SEE ITEM 11)			
		x 10A. MODIFICATION OF CONTRACT/ORDER NO. NNJ13HA01C			
		10B. DATED (SEE ITEM 13) 02/08/2013			
CODE 07486		FACILITY CODE			

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended, ☐ is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

See Schedule

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
X	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: Mutual Agreement of the Parties
	D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor ☐ is not, ☒ is required to sign this document and return 1 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

The purpose of this modification is to update Sections J- 02 Data Requirements List (DRL) and Data Requirements Descriptions (DRD), changing all distributed deliverables to the Contracting Officer from hard-copy to electronic.

All other terms and conditions in this contract remain unchanged.

Payment Terms:

Net 30 days

Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print) Lon F. Miller / Sr. Vice President & General Manager		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Christian C. Gaspard	
15B. CONTRACTOR/OFFEROR  (Signature of person authorized to sign)		16B. UNITED STATES OF AMERICA  (Signature of Contracting Officer)	
15C. DATE SIGNED 3/6/14		16C. DATE SIGNED 3/6/2014	

JSC Engineering, Technology and Science Contract

Data Requirements List (DRL) and Data Requirements Descriptions (DRD)

Attachment J-2

**Data Requirements List
and
Data Requirements Descriptions
(Based on JSC-STD-123)**

The following pages set out the documentation requirements of this contract, starting with a DRL, which is an index to the DRDs. Each DRD prescribes the required data product content, schedule, type, and other particulars for specific data submission requirements.

Subject to the Clause 52.227-14, Rights in Data - General, this document sets forth the data requirements in each Data Requirements Description (DRD) and shall govern that data required for this contract. The contractor shall furnish data defined by the DRDs listed on the Data Requirements List (DRL) by category of data. Such data shall be prepared, maintained, and delivered to NASA in accordance with the requirements set forth within this document. In cases where data requirements are covered by a Federal Acquisition Regulation (FAR) or NASA FAR Supplement (NFS) regulation or clause, the regulation will take precedence over this document, per FAR 52.215.33. NASA-Owned/Contractor-Held records shall be managed by the Contractor in accordance with Title 36 of the code of Federal Regulations, Chapter XII B, Records Management, and NMI 1440.6, NASA Records Management Program. The records shall be organized in accordance with the instructions in NHB 1442.1, NASA Uniform Files index, as applicable. The contractor shall disposition records and non-records in accordance with NHB 1441.1, NASA Retention Schedules, which has been approved by NASA and the National Archives and Records Administration (NARA). All questions on records management issues shall be directed through the Contracting Officer to the JSC Records Management Officer.

Documents included as applicable documents in the data requirements form a part of this document to the extent specified herein. References to documents other than applicable documents in the data requirements of this document may sometimes be utilized. These do not constitute a contractual obligation on the contractor. They are to be used only as a possible example or to provide related information to assist the contractor in developing a response to that particular data requirement.

DESCRIPTION

This document identifies and defines the requirements and data types for information and data required under this contract.

The Data Requirement Descriptions (DRDs), along with the Data Requirements List (DRL), define, by an individual Data Requirement, the information and data required for each deliverable document.

The data types are used to identify the approval and control required for each DRD. The Data Requirements List (DRL) is an index of all the DRDs by category and includes additional requirements for each DRD and the data types, as described below.

Documentation submitted pursuant to this clause may incorporate references to other current approved documentation, provided the references are adequate and include such identification elements as title, document number, and approval date (where applicable). However, if the pertinent information is of relatively minor size, the contractor shall incorporate the information itself, in lieu of using a reference. The contractor shall assure that any referenced information is readily available to appropriate users of the submitted document.

NUMBER OF COPIES AND DISTRIBUTION REQUIREMENTS

The contractor shall submit data product required in each DRD in compliance with the standard distribution list shown in Block 8 of the DRLs. Additional distribution shall be made as directed, in writing, by the Contracting Officer. The number of copies required will not exceed the limits set forth in Clause 1852.208-81, Restrictions on Printing and Duplicating, without prior Contracting Officer approval. Electronic Data Transmittal Forms will be used to confirm delivery of electronically resident DRD deliverables.

ELECTRONIC FORMAT

All the data requirements shall be delivered in the format as depicted in each DRD and compatible with JSC software loads.

FURTHER EXPLANATION OF DRL

Contract Start is defined as February 1, 2013.

Block 3 – Frequency of submittal/Maintenance:

<u>Code Description</u>	<u>Code Description</u>	<u>Code Description</u>
AD As Directed	DA Daily	RD As Released
AN Annually	DD Deferred Delivery	RT One Time and Revisions as Required
AR As Required	MO Monthly	SA Semi Annually
BE Biannually	OT One Time	TY Three Per Year
BM Bimonthly	PV Per Vehicle	UR Upon Request
BW Biweekly	QU Quarterly	WK Weekly

Block 4 – As of Date- If reports are of a recurring nature, an as of date will be included in this block (cutoff date and due date: e.g., 15/1 indicated input cutoff date of 15th and due date of 1st).

Block 5 – 1st Submittal Date

Block 6 – Copies –
a. Type

<u>Copies Type</u>	<u>Code Description</u>
E	Electronic
HC	Hard Copy

b Number – Number of copies required for each type of copy furnished.

Block 7 – Data Type

For the purpose of this clause, the following information/documentation types are applicable:

- (1) Type1 - Written approval -- Data and changes thereto requiring written approval by the NASA Office of Primary Responsibility (OPR) before formal release or implementation
- (2) Type2 - Mandatory submittal -- Data provided to NASA for coordination, information, review, and/or management control
- (3) Type3 - Submitted upon request -- Data prepared and retained under a specific contract to be made available to NASA upon request

Type 1 submissions shall be marked "TYPE 1 PRELIMINARY pending NASA approval or Type I APPROVED BY NASA, as appropriate." Additional special designations and deviations may be required on specific submissions in accordance with configuration management requirements.

Type 2 submissions shall be marked "TYPE 2 PRELIMINARY - RELEASE TARGET DATE, xx/xx/xx" or "TYPE 2 FINAL - NASA COMMENTS INCLUDED" or "TYPE 2 FINAL DOCUMENT," where NASA comments were not received.

NOTE: Documents submitted under this clause, even though directly (Type 1) or implicitly (Type 2) approved by NASA, shall not take precedence over the specifications as set out in Section C, Statement of Work.

The contractor shall normally deliver a complete revised Type 1 or Type 2 data requirement with NASA comments incorporated within 45 days of receipt of comments.

Type 3 submissions shall be marked "TYPE 3 DOCUMENT - FOR INFORMATION, SURVEILLANCE, REVIEW OR MANAGEMENT CONTROL".

Block 8 – Distribution

All electronic copies delivered to DDMS will be automatically distributed.

Block 9 – Remarks: Additional requirements, clarification or amplification of requirements from other blocks.

DRD GROUPS:

The DRDs are grouped into categories for clarity of purpose and ease of use. The groups are defined as follows:

- MGMT = Management – these documents address contract management processes and employee compensation
- IT = Information Technology – these documents address IT requirements.
- BP = Business Processes – these documents address non technical business processes.
- SMA = Safety and Mission Assurance – these documents include safety assessments, problem reporting, parts assessments and requirements. They also include parts, safety, quality, reliability, and configuration management plans.
- RV = Planning, requirements, and verification documentation – these are project planning documents, systems requirements, specifications, and verification.
- SW = Software Specific – these documents are software requirements, design, development, and testing documents.
- TD = Technical Products and Data Packages – these documents capture the results of design reviews, testing, and analysis.

Table 1 - DRL Reference

NUMBER	TITLE
SECTION 1.0	Contract Management
MGMT-01	Contract Management Plan
MGMT-02	Work Breakdown Structure and Dictionary
MGMT-03	Contract Management Report
MGMT-04	Staffing and Critical Skills Plan
MGMT-05	Contract Phase-In Plan
MGMT-06	Wage/Salary and Fringe Benefits Data
MGMT-07	Labor Relations Plan
MGMT-08	Notification of Potential Labor Dispute and Contingency Strike Plan
MGMT-09	Total Compensation Plan
MGMT-10	External Customer Plan
MGMT-11	Technology, Innovation, and Process Improvement Plan
MGMT-12	Organizational Conflict of Interest Mitigation Plan
MGMT-13	Small Business Subcontracting Plan and Reports
MGMT-14	Contract Closeout Plan
SECTION 1.1	Information Technology
IT-01	Information Technology (IT) Capital Planning and Investment Control (CPIC)
IT-02	Information Technology (IT) Security Plan and Reports
SECTION 1.2	Business Processes
BP-01	NASA Contractor Financial Management Report
BP-02	Data Management Plan
BP-03	Flights Products Configuration Management Plan
BP-04	RESERVED
BP-05	RESERVED
BP-06	Patent Rights Retention
BP-07	Reports Required for Logistics
BP-08	RESERVED
BP-09	Government Property Management Plan
BP-10	Re-procurement Data Package
SECTION 1.3	Safety and Mission Assurance
SMA-01	Quality Plan
SMA-02	Electrical, Electronic, and Electromechanical (EEE) Parts Control Plan
SMA-03	Safety and Health Plan
SMA-04	Safety and Health Program Self Evaluation
SMA-05	Lessons Learned Program Plan and Lessons Learned
SMA-06	Problem Reporting and Corrective Action (PRACA) for the JSC Government Furnished Equipment (GFE) and Flight Products
SMA-07	Government-Industry Data Exchange Program (GIDEP) and NASA Advisory Problem Data Sharing and Utilization Program Documentation and Reporting
SECTION 2.0	Planning, Requirements, and Verification Documentation
RV-01	Project Schedule
RV-02	Regular Status Report/Summary Review
RV-03	Project Technical Requirements Specification (PTRS)

NUMBER	TITLE
RV-04	Project Requirements and Verification Document (PRVD)
RV-05	Certification and Acceptance Requirements Document (CARD)
RV-06	Interface Control Document (ICD)
RV-07	End Item Specification
RV-08	Engineering Drawings and Model Files
RV-09	Flight Projects Authorization to Proceed Record
RV-10	Flight Products Verification and Validation Plan
RV-11	Flight Products Qualification Plan
RV-12	Flight Products Qualification Test Procedures
RV-13	Flight Products Acceptance Test Procedures
RV-14	Flight Products Qualification Report
SECTION 2.1	Software Requirements and Verification Documentation
SW-01	Software Requirements Document
SW-02	Software Development Plan
SW-03	Software Design Document
SW-04	Software Code
SW-05	Software Quality Assurance Plan
SW-06	Software Test Description
SW-07	Software Test Plan
SW-08	Version Description Document (Software and/or Firmware)
SECTION 2.2	Technical Products and Data Packages
TD-01	Flight Products System Requirements Review (SRR) Data Package
TD-02	Preliminary Design Review (PDR) Data Package
TD-03	Flight Products Critical Design Review (CDR) Data Package
TD-04	Acceptance Data Package (ADP)
TD-05	Limited Life Items List
TD-06	Certification Data Package
TD-07	Flight Products User's Guide
TD-08	Engineering Analysis
TD-09	Flight Products Verification and Validation Report
TD-10	Space Station Reliability and Maintainability Predictions Report
TD-11	Test Report
TD-12	Delivery and Acceptance Report
TD-13	Government Certification Approval Request (GCAR)
TD-14	Flight Products Workmanship Specification List
TD-15	Electrical, Electronic, and Electromechanical (EEE) Parts List and Analysis Report
TD-16	Space Station Hardware Failure Modes and Effects Analysis (FMEA) and Critical Items List (CIL)
TD-17	Space Station Payload Safety Data Package
TD-18	Space Station Hazard Reports (HRs)
TD-19	Risk Assessment Executive Summary Report
TD-20	Non Conformance Record (NCR)
TD-21	Flight Products Failure Analysis Report
TD-22	Engineering Design Change Proposal

a. Title of Contract, Project, SOW, etc.		b. Contract/RFP No.		c. DRL Date/Mod Date (mm/dd/yyyy)	
JSC Engineering and Technical Services (JETS) – Unrestricted		NNJ13HA01C		12/01/2011	
SECTION 1.0 – Contract Management					
1. Line item no. MGMT-01	2. DRD Title Contract Management Plan	3. Frequency RT	4. As-of-date --	5. 1 st subm. date Due with Proposal	6. Copies a. Type E HC b. Number 1 1
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval		<input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request			
8. Distribution Electronic copy delivered to the Design Data Management System (DDMS).		9. Remarks - Annual review required. Block 3: Update at contract start + 30 days. Revisions shall be submitted within 45 days after major changes to the content of the JETS contract.			
1. Line item no. MGMT-02	2. DRD Title Work Breakdown Structure and Dictionary	3. Frequency RT	4. As-of-date --	5. 1 st subm. date Due with Proposal	6. Copies a. Type E HC b. Number 1 1
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval		<input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request			
8. Distribution Electronic copy delivered to the DDMS.		9. Remarks - Annual review required. Block 3: Revisions shall be submitted within 45 days after major changes to the content of the JETS contract.			
1. Line item no. MGMT-03	2. DRD Title Contract Management Report	3. Frequency MO	4. As-of-date 30/15	5. 1 st subm. date 45 days after contract start date	6. Copies a. Type E HC b. Number 1 1
7. Data type: <input type="checkbox"/> (1) Written Approval		<input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request			
8. Distribution Electronic copy delivered to the DDMS.		9. Remarks Correction to a monthly Contract Management Report shall be identified and changes made, if applicable, in the subsequent monthly Contract Management Report.			

1. Line item no. MGMT-04	2. DRD Title Staffing and Critical Skills Plan	3. Frequency RT	4. As-of-date --	5. 1st subm. date Due with Proposal	6. Copies a. Type E HC b. Number 1 1	
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval	<input type="checkbox"/> (2) Mandatory Submittal					
8. Distribution Electronic copy delivered to the DDMS.		9. Remarks - Annual review required. Block 3: First update 30 days after contract start date. Subsequent revisions as required.				
1. Line item no. MGMT-05	2. DRD Title Contract Phase-In Plan	3. Frequency OT	4. As-of-date --	5. 1st subm. date Due with Proposal	6. Copies a. Type E HC b. Number 1 2	
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval	<input type="checkbox"/> (2) Mandatory Submittal					
8. Distribution Electronic copy delivered to the DDMS.		9. Remarks				
1. Line item no. MGMT-06	2. DRD Title Wage/Salary and Fringe Benefit Data	3. Frequency AN	4. As-of-date --	5. 1st subm. date 90 days after contract award	6. Copies a. Type E HC b. Number 1 2	
7. Data type: <input type="checkbox"/> (1) Written Approval	<input checked="" type="checkbox"/> (2) Mandatory Submittal					
8. Distribution Electronic copy delivered to the DDMS.		9. Remarks - Three hardcopies and one electronic copy of each Collective Bargaining Agreement are required if organized labor is represented. - Changes shall be incorporated as required by change page or complete reissue. - Copies of all CBA must be provided within 30 days of ratification or modification to the Contracting Officer, and Contractor Industrial Relations Officer. Block 3: Subsequent submittals shall be annually, 90 days prior to the anniversary of the contract.				

1. Line item no. MGMT-07	2. DRD Title Labor Relations Plan	3. Frequency RT	4. As-of-date --	5. 1st subm. date Contract start date + 30 days	6. Copies a. Type E HC b. Number 1 2	
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Electronic copy delivered to the DDMS.						
1. Line item no. MGMT-08	2. DRD Title Notification of Potential Labor Dispute and Contingency Strike Plan	3. Frequency AR	4. As-of-date --	5. 1st subm. date --	6. Copies a. Type E HC b. Number 1 2	
7. Data type: <input type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Electronic copy delivered to the DDMS.						
9. Remarks - A Contingency Strike Plan must be submitted at contract start and updated if there is any indication of potential labor unrest or potential picketing activity - A notification of potential labor dispute must be delivered at first indication of potential labor unrest and 45 days prior to the expiration of any Collective Bargaining Agreement (CBA). A new notification is required for every instance. - Copies of all CBA must be provided within 30 days of ratification or modification to the Contracting Officer, and Contractor Industrial Relations Officer.						
1. Line item no. MGMT-09	2. DRD Title Total Compensation Plan	3. Frequency RT	4. As-of-date --	5. 1st subm. date Due with Proposal	6. Copies a. Type E HC b. Number 1 2	
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Electronic copy delivered to the DDMS.						
9. Remarks Block 3: Final submittal due at contract start.						

1. Line item no. MGMT-10	2. DRD Title External Customer Plan	3. Frequency RT	4. As-of-date --	5. 1 st subm. date See Block 9	6. Copies a. Type E HC b. Number 1 2
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal		9. Remarks - Annual review required. Block 5: Initial partial submittal due with Proposal contains only data specified in the RFP. Initial complete submittal due 120 days after contract start date.			
1. Line item no. MGMT-11	2. DRD Title Technology, Innovations, and Process Improvement Plan	3. Frequency AN	4. As-of-date See Block 9	5. 1 st subm. date Due with Proposal	6. Copies a. Type E HC b. Number 1 1
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal		9. Remarks Block 3: First update due 60 days after contract start. Block 4: Anniversary of Contract Start + 30 days.			
1. Line item no. MGMT-12	2. DRD Title Organizational Conflicts of Interest (OCI) Mitigation Plan	3. Frequency RT	4. As-of-date --	5. 1 st subm. date Due with Proposal	6. Copies a. Type E HC b. Number 1 2
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal		9. Remarks - Annual review required. Block 3: Revisions shall be submitted within 30 days after identification of new potential OCI. Block 5: Submit along with Past Performance Volume.			
1. Line item no. MGMT-13	2. DRD Title Small Business Subcontracting Plan and Reports	3. Frequency RT	4. As-of-date --	5. 1 st subm. date Due with Proposal	6. Copies a. Type E HC b. Number 1 1
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal		9. Remarks - Annual review required. Block 3: Update as requested by CO. Block 7: Plan is Data Type 1; Reports are Data Type 2.			

1. Line item no. MGMT-14	2. DRD Title Contract Close-Out Plan	3. Frequency OT	4. As-of-date --	5. 1 st subm. date One year prior to contract end date	6. Copies a. Type E b. Number 1
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval	<input type="checkbox"/> (2) Mandatory Submittal				
8. Distribution Electronic copy delivered to the DDMS.					
9. Remarks Block 5: One year prior to end date of contract, unless otherwise directed by the Contracting Officer.					
SECTION 1.1 – Information Technology					
1. Line item no. IT-01	2. DRD Title Information Technology (IT) Capital Planning and Investment Control (CPIC)	3. Frequency AN	4. As-of-date See Block 9	5. 1 st subm. date Contract start	6. Copies a. Type E b. Number 1
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval	<input type="checkbox"/> (2) Mandatory Submittal				
8. Distribution Delivered to NASA Engineering Targeted Tools (ET2) database. Notification of delivery submitted to the DDMS.					
9. Remarks Block 3 & 4: Annual CPIC data call during PPBE per OCIO schedule. Execution year spend plan annually prior to Fiscal Year start.					
1. Line item no. IT-02	2. DRD Title Information Technology (IT) Security Program Plan and Reports	3. Frequency See Block 9	4. As-of-date --	5. 1 st subm. date Contract start	6. Copies a. Type E b. Number 1
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval	<input checked="" type="checkbox"/> (2) Mandatory Submittal				
8. Distribution Electronic copy delivered to the DDMS.					
9. Remarks Block 3: One time for Plan, Annual for Reports Block 7: Plan is Data Type 1; Reports are Data Type 2					

SECTION 1.2 – Business Processes

1. Line item no. BP-01	2. DRD Title NASA Contractor Financial Management Report	3. Frequency MO	4. As-of-date See DRD	5. 1st subm. date Contract start + 30 days	6. Copies a. Type: E b. Number: 3		
7. Data type: <input type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request							
8. Distribution 1) Electronic copy delivered to the DDMS. 2) Electronic copy submitted to LE/Contract Business Management. 3) Electronic copy submitted to LF6/Cost Accounting.		9. Remarks Blocks 6b & 8: A Year-end Hard Copy submitted to LE/Contract Business Manager.					
1. Line item no. BP-02	2. DRD Title Data Management Plan	3. Frequency RT	4. As-of-date --	5. 1st subm. date Contract start + 30 days	6. Copies a. Type: E b. Number: 1		
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request							
8. Distribution Electronic copy delivered to the DDMS.		9. Remarks - Annual review required. Block 3: Update as needed from annual review.					
1. Line item no. BP-03	2. DRD Title Flight Products Configuration Management Plan	3. Frequency RT	4. As-of-date	5. 1st subm. date Contract start + 45 days	6. Copies a. Type: E b. Number: 1		
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request							
8. Distribution Electronic copy delivered to the DDMS.		9. Remarks Block 3: Update as required or as needed from annual review.					
1. Line item no. BP-04	2. DRD Title Financial Reporting Contractor-Held Property	3. Frequency MO	4. As-of-date --	5. 1st subm. date March 2014 Submission	6. Copies a. Type: E b. Number: 1		
7. Data type: <input type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request							
8. Distribution Electronic delivery via the instructions within the DRD.		9. Remarks					

1. Line item no. BP-05	2. DRD Title RESERVED	3. Frequency	4. As-of-date	5. 1st subm. date	6. Copies a. Type b. Number	
7. Data type: <input type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request 8. Distribution		9. Remarks				
1. Line item no. BP-06	2. DRD Title Patent Rights Retention	3. Frequency See Block 9	4. As-of-date	5. 1st subm. date Contract start + 12 months	6. Copies a. Type b. Number E 1 HC 1	
7. Data type: <input type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request 8. Distribution Electronic copy delivered to the DDMS.		9. Remarks Block 3: As required by the DRD				
1. Line item no. BP-07	2. DRD Title Reports Required for Logistics	3. Frequency See Block 9	4. As-of-date --	5. 1st subm. date See Block 9	6. Copies a. Type b. Number E 1 HC 2	
7. Data type: <input type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request 8. Distribution 1) Electronic copy delivered to the DDMS. 2) Hard copy submitted to the Supply and Equipment Management Office (SEMO).		9. Remarks 1. Reports of Personnel Property Management Operations: 3/25 and 9/25.* 2. Analysis of Fixed Inventory Assets: 3/25 and 9/25.* 3. Physical Inventory of Materials Annual Report: 9/25. 4. Quarterly Report of contractor-acquired material: 15 days after the end of fiscal quarters.** 5. Annual report of Exchange/Sale: 15 days after the end of the Government Fiscal Year. * Initial reports shall be delivered by 9/25/2013 and semiannually (every six months) thereafter. ** The delivery of the first quarterly report shall be due on or before 7/15/2013.				
1. Line item no. BP-08	2. DRD Title RESERVED	3. Frequency	4. As-of-date --	5. 1st subm. date	6. Copies a. Type b. Number	
7. Data type: <input type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request 8. Distribution		9. Remarks				

1. Line item no. BP-09	2. DRD Title Government Property Management Plan	3. Frequency RT	4. As-of-date --	5. 1st subm. date Due with Proposal	6. Copies a. Type E b. Number 1	
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Electronic copy delivered to the DDMS.		9. Remarks Block 3: First update plan due at contract start + 30 days. Revisions shall be submitted within 45 days after major changes to the content of the JETS contract. Update as needed from annual review.				
1. Line item no. BP-10	2. DRD Title Re-procurement Data Package	3. Frequency OT	4. As-of-date --	5. 1st subm. date See block 9	6. Copies a. Type E b. Number 1	
7. Data type: <input type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Electronic copy delivered to the DDMS.		9. Remarks Block 5: Initial package due 1 year prior to contract end or at the Contracting Officer's direction. Final package due at end of period of performance; submission of current version of all models, tools and supporting documentation which have been updated since initial submission.				
SECTION 1.3 – Safety and Mission Assurance						
1. Line item no. SMA-01	2. DRD Title Quality Plan	3. Frequency RT	4. As-of-date --	5. 1st subm. date Due with Proposal	6. Copies a. Type E b. Number 1	
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution 1) Electronic copy delivered to the DDMS. 2) Hard copy submitted to N1T4/Chief, Quality Engineering Branch.		9. Remarks Block 3: Update as requested by the COTR.				

1. Line item no. SMA-02	2. DRD Title Electrical, Electronic, and Electromechanical (EEE) Parts Control Plan	3. Frequency RT	4. As-of-date --	5. 1st subm. date Contract start + 30 days	6. Copies a. Type E b. Number 1	
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Electronic copy delivered to the DDMS.						
1. Line item no. SMA-03	2. DRD Title Safety and Health Plan	3. Frequency RT	4. As-of-date --	5. 1st subm. date Due with Proposal	6. Copies a. Type E HC b. Number 1 3	
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution 1) Electronic copy delivered to the DDMS. 2) Hard copy submitted to NSI/Chief, JSC Safety and Test Operations Division. 3) Hard copy submitted to the JSC Occupational Health Officer						
1. Line item no. SMA-04	2. DRD Title Safety and Health Program Self Evaluation	3. Frequency AN	4. As-of-date September 30 th	5. 1st subm. date Contract start + 365 days	6. Copies a. Type E HC b. Number 1 5	
7. Data type: <input type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution 1) Electronic copy delivered to the DDMS. 2) Hard copy submitted to NSI/Chief, JSC Safety and Test Operations Division (2 copies). 3) Hard copy submitted to JSC Occupational Health Officer. 4) Hard copy submitted to JSC Emergency Preparedness Office.						

1. Line item no. SMA-05	2. DRD Title Lessons Learned Program Plan and Lessons Learned	3. Frequency See Block 9	4. As-of-date --	5. 1st subm. date See Block 9	6. Copies a. Type E b. Number 1	
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval	<input checked="" type="checkbox"/> (2) Mandatory Submittal	<input type="checkbox"/> (3) Submitted upon request				
9. Remarks Block 3: Lessons Learned Plan: One time delivery. Lessons learned: As required, within 30 days of triggering event or completion of investigation or hazard analysis/evaluation. Block 5: Lessons learned plan: Contract start + 60 days. Block 7: Data type 1 for Plan, Data type 2 for Lessons						
1. Line item no. SMA-06	2. DRD Title Problem Reporting and Corrective Action (PRACA) for the JSC Government Furnished Equipment (GFE) and Flight Products	3. Frequency RD	4. As-of-date --	5. 1st subm. date See DRD	6. Copies a. Type E b. Number 1	
7. Data type: <input type="checkbox"/> (1) Written Approval	<input checked="" type="checkbox"/> (2) Mandatory Submittal	<input type="checkbox"/> (3) Submitted upon request				
9. Remarks						
1. Line item no. SMA-07	2. DRD Title Government-Industry Data Exchange Program (GIDEP) and NASA Advisory Problem Data Sharing and Utilization Program Documentation and Reporting	3. Frequency AR	4. As-of-date --	5. 1st subm. date See Block 9	6. Copies a. Type E b. Number 1 2	
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval	<input checked="" type="checkbox"/> (2) Mandatory Submittal	<input type="checkbox"/> (3) Submitted upon request				
9. Remarks 1) Contractor and sub-tier Implementation Procedure: Contract start + 60 days. 2) Release of GIDEP documents: in compliance with GIDEP Operations Manual and Policy. 3) Release of NASA Advisories: in compliance with NASA policy. 4) Problem data assessments: 30 days after receipt of the problem data. 5) Milestone/mission support: as required to support the milestone or mission events. 6) Cost data: as required for special problems involving criminal investigations. Block 7: Data type 1 for Procedure, Data type 2 for other reporting documentations.						
8. Distribution Implementation Procedures: 1) Deliver to the DDMS. 2) Hard copy submitted to NT4/JSC GIDEP/NASA Advisory Coordinator NASA Advisories: E-mail JF 1159 to the JSC NASA-Advisory/GIDEP Coordinator at jsc-iscadvco@mail.nasa.gov Status and Disposition Data: Electronically delivered to the JSC NASA Advisory/GIDEP Documents Status and Tracking System						

SECTION 2.0 – Planning, Requirements and Verification Documentation						
1. Line item no. RV-01	2. DRD Title Project Schedule	3. Frequency RT	4. As-of-date --	5. 1st subm. date Per direction in Task Order	6. Copies a. Type E b. Number 1	
7. Data type: <input type="checkbox"/> (1) Written Approval		<input checked="" type="checkbox"/> (2) Mandatory Submittal		<input type="checkbox"/> (3) Submitted upon request		
8. Distribution Deliver to the respective Task Order folder in the DDMS.						
9. Remarks						
1. Line item no. RV-02	2. DRD Title Regular Status Report/Summary Review	3. Frequency AD	4. As-of-date --	5. 1st subm. date Per direction in Task Order	6. Copies a. Type E b. Number 1	
7. Data type: <input type="checkbox"/> (1) Written Approval		<input checked="" type="checkbox"/> (2) Mandatory Submittal		<input type="checkbox"/> (3) Submitted upon request		
8. Distribution Deliver to the respective Task Order folder in the DDMS.						
9. Remarks						
1. Line item no. RV-03	2. DRD Title Project Technical Requirements Specification (PTRS)	3. Frequency AD	4. As-of-date --	5. 1st subm. date Per direction in Task Order	6. Copies a. Type E b. Number 1	
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval		<input type="checkbox"/> (2) Mandatory Submittal		<input type="checkbox"/> (3) Submitted upon request		
8. Distribution Deliver to the respective Task Order folder in the DDMS.						
9. Remarks						
1. Line item no. RV-04	2. DRD Title Project Requirements and Verification Documentation (PRVD)	3. Frequency AD	4. As-of-date --	5. 1st subm. date Per direction in Task Order	6. Copies a. Type E b. Number 1	
7. Data type: <input type="checkbox"/> (1) Written Approval		<input checked="" type="checkbox"/> (2) Mandatory Submittal		<input type="checkbox"/> (3) Submitted upon request		
8. Distribution Deliver to the respective Task Order folder in the DDMS.						
9. Remarks						

1. Line item no. RV-05	2. DRD Title Certification and Acceptance Requirements Document (CARD)	3. Frequency AD	4. As-of-date --	5. 1 st subm. date See Block 9	6. Copies a. Type E b. Number 1	
7. Data type:	<input checked="" type="checkbox"/> (1) Written Approval	<input type="checkbox"/> (2) Mandatory Submittal				
8. Distribution	Deliver to the respective Task Order folder in the DDMS.					
1. Line item no. RV-06	2. DRD Title Interface Control Document (ICD)	3. Frequency See Block 9	4. As-of-date --	5. 1 st subm. date See Block 9	6. Copies a. Type E b. Number 1	
7. Data type:	<input checked="" type="checkbox"/> (1) Written Approval	<input type="checkbox"/> (2) Mandatory Submittal				
8. Distribution	Deliver to the respective Task Order folder in the DDMS.					
<p>Block 3: Update as directed or as required through the appropriate Flight Product configuration control processes. An up-to-date revision is required at Critical Design Reviews and a final revision is required at flight product acceptance.</p> <p>Block 5: Initial version at the Preliminary Design Review or as directed in Task Order.</p>						
1. Line item no. RV-07	2. DRD Title End Item Specification	3. Frequency RT	4. As-of-date --	5. 1 st subm. date See Block 9	6. Copies a. Type E b. Number 1	
7. Data type:	<input checked="" type="checkbox"/> (1) Written Approval	<input type="checkbox"/> (2) Mandatory Submittal				
8. Distribution	Deliver to the respective Task Order folder in the DDMS.					
<p>Block 5: At PDR or as directed in Task Order.</p>						
1. Line item no. RV-08	2. DRD Title Engineering Drawings and Model Files	3. Frequency AR	4. As-of-date --	5. 1 st subm. date --	6. Copies a. Type E b. Number 1	
7. Data type:	<input checked="" type="checkbox"/> (1) Written Approval	<input type="checkbox"/> (2) Mandatory Submittal				
8. Distribution	<p>Block 7: Data Type 1: NASA CAGE Code (Written Approval)</p> <p>Data Type 2: Contractor CAGE Code (Mandatory Submittal)</p> <p>- Updated as required prior to Critical Design Reviews (CDRs). All updates are submitted for approval by the appropriate configuration control board, prior to obtaining authorization after the CDR.</p>					

1. Line item no. RV-09	2. DRD Title Flight Projects Authorization to Proceed Record	3. Frequency AR	4. As-of-date --	5. 1st subm. date See Block 9	6. Copies a. Type E b. Number 1	
7. Data type:	<input checked="" type="checkbox"/> (1) Written Approval	<input type="checkbox"/> (2) Mandatory Submittal		<input type="checkbox"/> (3) Submitted upon request		
8. Distribution 1) Electronic copy delivered to the DDMS.						
1. Line item no. RV-10	2. DRD Title Flight Products Verification and Validation Plan	3. Frequency AR	4. As-of-date --	5. 1st subm. date See Block 9	6. Copies a. Type E b. Number 1	
7. Data type:	<input checked="" type="checkbox"/> (1) Written Approval	<input checked="" type="checkbox"/> (2) Mandatory Submittal		<input type="checkbox"/> (3) Submitted upon request		
8. Distribution Deliver to the respective Task Order folder in the DDMS.						
1. Line item no. RV-11	2. DRD Title Flight Products Qualification Plan	3. Frequency AR	4. As-of-date --	5. 1st subm. date See Block 9	6. Copies a. Type E b. Number 1	
7. Data type:	<input checked="" type="checkbox"/> (1) Written Approval	<input type="checkbox"/> (2) Mandatory Submittal		<input type="checkbox"/> (3) Submitted upon request		
8. Distribution Deliver to the respective Task Order folder in the DDMS.						
1. Line item no. RV-12	2. DRD Title Flight Products Qualification Test Procedures	3. Frequency RT	4. As-of-date --	5. 1st subm. date See Block 9	6. Copies a. Type E b. Number 1	
7. Data type:	<input checked="" type="checkbox"/> (1) Written Approval	<input type="checkbox"/> (2) Mandatory Submittal		<input type="checkbox"/> (3) Submitted upon request		
8. Distribution Deliver to the respective Task Order folder in the DDMS.						
1. Line item no. RV-13	2. DRD Title Flight Products Acceptance Test Procedures	3. Frequency AR	4. As-of-date --	5. 1st subm. date See Block 9	6. Copies a. Type E b. Number 1	
7. Data type:	<input checked="" type="checkbox"/> (1) Written Approval	<input type="checkbox"/> (2) Mandatory Submittal		<input type="checkbox"/> (3) Submitted upon request		
8. Distribution Deliver to the respective Task Order folder in the DDMS.						

1. Line item no. RV-14	2. DRD Title Flight Product Qualification Report	3. Frequency AR	4. As-of-date --	5. 1 st subm. date See Block 9	6. Copies a. Type E b. Number 1	
7. Data type:	<input type="checkbox"/> (1) Written Approval	<input type="checkbox"/> (2) Mandatory Submittal				
9. Remarks Block 5: At System Acceptance Review or as directed in the Task Order.						
SECTION 2.1 – Software Requirements and Verification Documentation						
1. Line item no. SW-01	2. DRD Title Software Requirements Document	3. Frequency RT	4. As-of-date --	5. 1 st subm. date As directed in the Task Order	6. Copies a. Type E b. Number 1	
7. Data type:	<input checked="" type="checkbox"/> (1) Written Approval	<input type="checkbox"/> (2) Mandatory Submittal				
9. Remarks						
Deliver to the respective Task Order folder in the DDMS.						
1. Line item no. SW-02	2. DRD Title Software Development Plan	3. Frequency RT	4. As-of-date --	5. 1 st subm. date As directed in the Task Order	6. Copies a. Type E b. Number 1	
7. Data type:	<input type="checkbox"/> (1) Written Approval	<input type="checkbox"/> (2) Mandatory Submittal				
9. Remarks						
Deliver to the respective Task Order folder in the DDMS.						
1. Line item no. SW-03	2. DRD Title Software Design Documents	3. Frequency RT	4. As-of-date --	5. 1 st subm. date As directed in the Task Order	6. Copies a. Type E b. Number 1	
7. Data type:	<input type="checkbox"/> (1) Written Approval	<input type="checkbox"/> (2) Mandatory Submittal				
9. Remarks						
Deliver to the respective Task Order folder in the DDMS.						
1. Line item no. SW-04	2. DRD Title Software Code	3. Frequency RT	4. As-of-date --	5. 1 st subm. date As directed in the Task Order	6. Copies a. Type E b. Number 1	
7. Data type:	<input type="checkbox"/> (1) Written Approval	<input type="checkbox"/> (2) Mandatory Submittal				
9. Remarks						
Deliver to the respective Task Order folder in the DDMS.						

1. Line item no. SW-05	2. DRD Title Software Assurance Plan	3. Frequency RT	4. As-of-date --	5. 1st subm. date Contract start + 60 days	6. Copies a. Type E b. Number 1	
7. Data type:	<input checked="" type="checkbox"/> (1) Written Approval	<input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request				
8. Distribution Electronic copy delivered to the DDMS.						
1. Line item no. SW-06	2. DRD Title Software Test Description	3. Frequency RT	4. As-of-date --	5. 1st subm. date As directed by the Task Order	6. Copies a. Type E b. Number 1	
7. Data type:	<input type="checkbox"/> (1) Written Approval	<input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request				
8. Distribution Deliver to the respective Task Order folder in the DDMS.						
1. Line item no. SW-07	2. DRD Title Software Test Plan	3. Frequency RT	4. As-of-date --	5. 1st subm. date As directed by the Task Order	6. Copies a. Type E b. Number 1	
7. Data type:	<input type="checkbox"/> (1) Written Approval	<input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request				
8. Distribution Deliver to the respective Task Order folder in the DDMS.						
1. Line item no. SW-08	2. DRD Title Version Description Document (Software and/or Firmware)	3. Frequency RT	4. As-of-date --	5. 1st subm. date As directed by the Task Order	6. Copies a. Type E b. Number 1	
7. Data type:	<input type="checkbox"/> (1) Written Approval	<input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request				
8. Distribution Deliver to the respective Task Order folder in the DDMS.						
SECTION 2.2 – Technical Products and Data Packages						
1. Line item no. TD-01	2. DRD Title Flight Products Systems Requirements Review (SRR) Data Package	3. Frequency RT	4. As-of-date --	5. 1st subm. date As directed by the Task Order	6. Copies a. Type E b. Number 1	
7. Data type:	<input type="checkbox"/> (1) Written Approval	<input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request				
8. Distribution Deliver to the respective Task Order folder in the DDMS.						

1. Line item no. TD-02	2. DRD Title Preliminary Design Review (PDR) Data Package	3. Frequency RT	4. As-of-date --	5. 1st subm. date See Block 9	6. Copies a. Type E b. Number 1	
7. Data type:	<input type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal	<input type="checkbox"/> (3) Submitted upon request				
9. Remarks Block 5: Submit 14 days before PDR or as directed by Task Order						
1. Line item no. TD-03	2. DRD Title Flight Product Critical Design Review (CDR) Data Package	3. Frequency RT	4. As-of-date --	5. 1st subm. date See Block 9	6. Copies a. Type E b. Number 1	
7. Data type:	<input type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal	<input type="checkbox"/> (3) Submitted upon request				
9. Remarks Block 5: Submit 14 days before CDR or as directed by Task Order						
1. Line item no. TD-04	2. DRD Title Acceptance Data Package (ADP)	3. Frequency RT	4. As-of-date --	5. 1st subm. date Delivery of End Item	6. Copies a. Type E b. Number 1	
7. Data type:	<input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal	<input type="checkbox"/> (3) Submitted upon request				
9. Remarks The DD 250 is the form used for the final approval of the ADP and the product delivered.						
1. Line item no. TD-05	2. DRD Title Limited Life Items List	3. Frequency RT	4. As-of-date --	5. 1st subm. date See Block 9	6. Copies a. Type E b. Number 1	
7. Data type:	<input type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal	<input type="checkbox"/> (3) Submitted upon request				
9. Remarks Block 5: Submit at SAR or as directed in the Task Order						
1. Line item no. TD-06	2. DRD Title Certification Data Package	3. Frequency RT	4. As-of-date --	5. 1st subm. date As directed in the Task Order	6. Copies a. Type E b. Number 1	
7. Data type:	<input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal	<input type="checkbox"/> (3) Submitted upon request				
9. Remarks Deliver to the respective Task Order folder in the DDMS.						

1. Line item no. TD-07	2. DRD Title Flight Product User's Guide	3. Frequency AD	4. As-of-date --	5. 1st subm. date As directed in the Task Order	6. Copies a. Type E b. Number 1	
7. Data type:	<input type="checkbox"/> (1) Written Approval	<input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request				
8. Distribution Deliver to the respective Task Order folder in the DDMS.	9. Remarks The User's Guide shall be updated as required by configuration change to the products or the product interfaces. Flight crew experiences when using the guide and corrections of technical content may be some of the sources for updates.					
1. Line item no. TD-08	2. DRD Title Engineering Analysis	3. Frequency RT	4. As-of-date --	5. 1st subm. date See Block 9	6. Copies a. Type E b. Number 1	
7. Data type:	<input type="checkbox"/> (1) Written Approval	<input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request				
8. Distribution Deliver to the respective Task Order folder in the DDMS.	9. Remarks Block 5: At System Acceptance Review or as directed in the Task Order.					
1. Line item no. TD-09	2. DRD Title Flight Products Verification and Validation Report	3. Frequency RT	4. As-of-date --	5. 1st subm. date See Block 9	6. Copies a. Type E b. Number 1	
7. Data type:	<input type="checkbox"/> (1) Written Approval	<input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request				
8. Distribution Deliver to the respective Task Order folder in the DDMS.	9. Remarks Block 5: The initial report is provided at qualification or 1st flight unit completion. The V&V report is completed at the Systems Acceptance Review.					
1. Line item no. TD-10	2. DRD Title Space Station Reliability and Maintainability Predictions Report	3. Frequency RT	4. As-of-date --	5. 1st subm. date As directed in the Task Order	6. Copies a. Type E b. Number 1	
7. Data type:	<input type="checkbox"/> (1) Written Approval	<input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request				
8. Distribution Deliver to the respective Task Order folder in the DDMS.	9. Remarks					
1. Line item no. TD-11	2. DRD Title Test Report	3. Frequency RD	4. As-of-date --	5. 1st subm. date As directed in the Task Order	6. Copies a. Type E b. Number 1	
7. Data type:	<input type="checkbox"/> (1) Written Approval	<input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request				
8. Distribution Deliver to the respective Task Order folder in the DDMS.	9. Remarks					

1. Line item no. TD-12	2. DRD Title Delivery and Acceptance Report	3. Frequency AD	4. As-of-date --	5. 1st subm. date As directed in the Task Order	6. Copies a. Type E b. Number 1	
7. Data type:	<input checked="" type="checkbox"/> (1) Written Approval	<input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request				
9. Remarks						
Deliver to the respective Task Order folder in the DDMS.						
1. Line item no. TD-13	2. DRD Title Government Certification Approval Request (GCAR)	3. Frequency RT	4. As-of-date	5. 1st subm. date See Block 9	6. Copies a. Type E b. Number 1	
7. Data type:	<input checked="" type="checkbox"/> (1) Written Approval	<input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request				
9. Remarks						
Deliver to the respective Task Order folder in the DDMS.						
1. Line item no. TD-14	2. DRD Title Flight Products Workmanship Specification List	3. Frequency RT	4. As-of-date --	5. 1st subm. date See Block 9	6. Copies a. Type E b. Number 1	
7. Data type:	<input checked="" type="checkbox"/> (1) Written Approval	<input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request				
9. Remarks						
Deliver to the respective Task Order folder in the DDMS.						
1. Line item no. TD-15	2. DRD Title Electrical, Electronic, and Electromechanical (EEE) Parts List and Analysis Report	3. Frequency RT	4. As-of-date --	5. 1st subm. date As directed in the Task Order	6. Copies a. Type E b. Number 1	
7. Data type:	<input type="checkbox"/> (1) Written Approval	<input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request				
9. Remarks						
Deliver to the respective Task Order folder in the DDMS.						
1. Line item no. TD-16	2. DRD Title Space Station Hardware Failure Modes and Effects Analysis (FMEA) and Critical Items List (CIL)	3. Frequency RT	4. As-of-date --	5. 1st subm. date As directed in the Task Order	6. Copies a. Type E b. Number 1	
7. Data type:	<input type="checkbox"/> (1) Written Approval	<input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request				
9. Remarks						
Deliver to the respective Task Order folder in the DDMS.						

1. Line item no. TD-17	2. DRD Title Space Station Payload Safety Data Package	3. Frequency RT	4. As-of-date --	5. 1st subm. date As directed in the Task Order	6. Copies a. Type <input type="checkbox"/> E b. Number <input type="checkbox"/> I	
7. Data type:	<input checked="" type="checkbox"/> (1) Written Approval	<input type="checkbox"/> (2) Mandatory Submittal				
8. Distribution Deliver to the respective Task Order folder in the DDMS.	9. Remarks					
1. Line item no. TD-18	2. DRD Title Space Station Hazard Reports (HRs)	3. Frequency RT	4. As-of-date --	5. 1st subm. date See Block 9	6. Copies a. Type <input type="checkbox"/> E b. Number <input type="checkbox"/> I	
7. Data type:	<input checked="" type="checkbox"/> (1) Written Approval	<input type="checkbox"/> (2) Mandatory Submittal				
8. Distribution Deliver to the respective Task Order folder in the DDMS.	9. Remarks Block 5: Phase I, II and III Report versions are submitted concurrent with the milestone reviews or as specified in the Task Order.					
1. Line item no. TD-19	2. DRD Title Risk Assessment Executive Summary Report	3. Frequency RT	4. As-of-date --	5. 1st subm. date See Block 9	6. Copies a. Type <input type="checkbox"/> E b. Number <input type="checkbox"/> I	
7. Data type:	<input checked="" type="checkbox"/> (1) Written Approval	<input type="checkbox"/> (2) Mandatory Submittal				
8. Distribution Deliver to the respective Task Order folder in the DDMS.	9. Remarks Block 5: Phase I, II and III Report versions are submitted concurrent with the milestone reviews or as specified in the Task Order.					
1. Line item no. TD-20	2. DRD Title Non-Conformance Record (NCR)	3. Frequency AR	4. As-of-date --	5. 1st subm. date --	6. Copies a. Type <input type="checkbox"/> E b. Number <input type="checkbox"/> I	
7. Data type:	<input checked="" type="checkbox"/> (1) Written Approval	<input type="checkbox"/> (2) Mandatory Submittal				
8. Distribution Deliver to the respective Task Order folder in the DDMS.	9. Remarks - The Contractor shall provide NASA access to its internal electronic data system, if requested by the CO. Block 7: Written approval of "waiver", "use as is", and "repair" dispositions is required per requirements defined in Quality Plan and Configuration Management Plan.					
1. Line item no. TD-21	2. DRD Title Flight Products Failure Analysis Report	3. Frequency AR	4. As-of-date --	5. 1st subm. date See Block 9	6. Copies a. Type <input type="checkbox"/> E b. Number <input type="checkbox"/> I	
7. Data type:	<input type="checkbox"/> (1) Written Approval	<input type="checkbox"/> (2) Mandatory Submittal				
8. Distribution Deliver to the respective Task Order folder in the DDMS.	9. Remarks Block 5: Established by agreement between the contractor and the COTR or the COTR's technical designee; may vary depending on the nature of the failure.					

1. Line item no. TD-22	2. DRD Title Engineering Design Change Proposal	3. Frequency AR	4. As-of-date --	5. 1 st subm. date --	6. Copies a. Type E b. Number 1	
7. Data type:	<input type="checkbox"/> (1) Written Approval	<input type="checkbox"/> (2) Mandatory Submittal	<input checked="" type="checkbox"/> (3) Submitted upon request			
8. Distribution Deliver to the respective Task Order folder in the DDMS.	9. Remarks					

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT D CODE		PAGE OF PAGES 1 2	
2. AMENDMENT/MODIFICATION NO. 000038		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO.	
6. ISSUED BY NASA/Johnson Space Center Attn: Lawrence Miller/BH2 2101 NASA Parkway Houston TX 77058-3696		CODE JSC		5. PROJECT NO. (If applicable) JSC	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) JACOBS 600 WILLIAM NORTHERN BLVD TULLAHOMA TN 37388-4729		(x)		9A. AMENDMENT OF SOLICITATION NO.	
CODE 07486		FACILITY CODE		9B. DATED (SEE ITEM 11)	
		x		10A. MODIFICATION OF CONTRACT/ORDER NO. NNJ13HA01C	
				10B. DATED (SEE ITEM 13) 02/08/2013	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended ☐ is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required) Net Decrease: -\$430,894.98
See Schedule

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) FAR 52.232-22 Limitation of Funds

E. IMPORTANT Contractor ☒ is not. ☐ is required to sign this document and return _____ 0 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)


The purpose of this modification is to 1) decrease contract funding from \$137,941,246.49 to \$137,510,351.51, a decrease of \$430,894.98; and 2) update contract clause B.5, Contract Funding (see page 2).

Payment Terms:

Net 30 days

FOB: Destination

Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Christian C. Gaspard	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA  (Signature of Contracting Officer)	16C. DATE SIGNED 3/7/2014

B.3 CONTRACT PHASE-IN (FIRM-FIXED PRICE)

The total firm fixed price of all phase-in effort for this contract is (b) (4) covering a 60-calendar day phase-in period from **March 1, 2013** through **April 30, 2013**.

(End of clause)

B.5 CONTRACT FUNDING (NFS 1852.232-81) (JUN 1990)

(a) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds clause, the total amount allotted by the Government to this contract is (b) (4). This allotment is for JSC Engineering, Technology and Science (JETS) efforts at NASA/JSC and covers the following estimated period of performance: May 1, 2013 through **March 24, 2014**.

(b) An additional amount of (b) (4) is obligated under this contract for payment of fee.

(End of clause)

Funding recapitulation (included for administrative purposes only):

TOTAL			
	Prior Funding Thru Mod 37	Current Action Mod 38	Total Funding Thru Mod 38
Cost	(b) (4)		
Fee			
FFP			
Total	\$137,941,246.49	(\$430,894.98)	\$137,510,351.51

DE-OBLIGATIONS				
PR #	PLI	ALI	WBS Element	Amount
4200492655	1	33	760231.05.08.05.10	\$ 11,129.00
4200492655	1	77	432938.11.01.05.01.02.01	\$ 21,965.98
4200496664	1	61	401769.06.03.01.02.16	\$ 30,000.00
4200496664	1	66	401769.06.06.01.02.29.03	\$ 300,000.00
4200500329	2	1	295670.01.06.02.35	\$ 43,000.00
4200500329	2	16	747797.06.14.03.99.10	\$ 1,000.00
4200500329	2	21	756414.04.12.02	\$ 500.00
4200502140	1	26	401769.06.06.01.02.29.02	\$ 3,300.00
4200502140	1	57	581570.01.04.03.01.02	\$ 20,000.00
Total				\$ (430,894.98)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT D CODE		PAGE OF PAGES 1 2	
2. AMENDMENT/MODIFICATION NO. 000039		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO. See Schedule	
5. PROJECT NO. (If applicable)		6. ISSUED BY NASA/Johnson Space Center Attn: Lawrence Miller/BH2 2101 NASA Parkway Houston TX 77058-3696		7. ADMINISTERED BY (If other than Item 6) NASA/Johnson Space Center Attn: Lawrence Miller/BH2 281.483.3916 lawrence.l.miller@nasa.gov 2101 NASA Parkway Houston TX 77058-3696	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) JACOBS 600 WILLIAM NORTHERN BLVD TULLAHOMA TN 37388-4729		9A. AMENDMENT OF SOLICITATION NO. (x)		9B. DATED (SEE ITEM 11)	
10A. MODIFICATION OF CONTRACT/ORDER NO. NNJ13HA01C		10B. DATED (SEE ITEM 13) 02/08/2013		10C. DATED (SEE ITEM 13) 02/08/2013	
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS		11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS		11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS	

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended ☐ is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)
See Schedule
Net Increase: \$13,262,877.91

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) FAR 52.232-22 Limitation of Funds

E. IMPORTANT Contractor ☒ is not. ☐ is required to sign this document and return _____ 0 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)


The purpose of this modification is to 1) increase contract funding from \$137,510,351.51 to \$150,773,229.42, a increase of \$13,262,877.91; and 2) update contract clause B.5, Contract Funding (see page 2).

Payment Terms:

Net 30 days

FOB: Destination

Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Christian C. Gaspard	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA  (Signature of Contracting Officer)	16C. DATE SIGNED 3/10/2014

B.3 CONTRACT PHASE-IN (FIRM-FIXED PRICE)

The total firm fixed price of all phase-in effort for this contract is (b) (4) covering a 60-calendar day phase-in period from **March 1, 2013** through **April 30, 2013**.

(End of clause)

B.5 CONTRACT FUNDING (NFS 1852.232-81) (JUN 1990)

(a) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds clause, the total amount allotted by the Government to this contract is (b) (4). This allotment is for JSC Engineering, Technology and Science (JETS) efforts at NASA/JSC and covers the following estimated period of performance: May 1, 2013 through **April 21, 2014**.

(b) An additional amount of (b) (4) is obligated under this contract for payment of fee.

(End of clause)

Funding recapitulation (included for administrative purposes only):

TOTAL			
	Prior Funding Thru Mod 38	Current Action Mod 39	Total Funding Thru Mod 39
Cost	(b) (4)	(b) (4)	(b) (4)
Fee			
FFP			
Total	\$137,510,351.51	\$13,262,877.91	\$150,773,229.42

OBLIGATIONS	
PR	Amount
4200505101	\$3,963,285.10
4200505150	\$6,043,947.94
4200505179	\$3,255,644.87
Total	\$13,262,877.91

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT D CODE		PAGE OF PAGES 1 2	
2. AMENDMENT/MODIFICATION NO. 000040		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO.	
6. ISSUED BY NASA/Johnson Space Center Attn: Lawrence Miller/BH2 2101 NASA Parkway Houston TX 77058-3696		CODE JSC		5. PROJECT NO. (If applicable) JSC	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) JACOBS 600 WILLIAM NORTHERN BLVD TULLAHOMA TN 37388-4729		(x)		9A. AMENDMENT OF SOLICITATION NO.	
CODE 07486		FACILITY CODE		9B. DATED (SEE ITEM 11)	
		x		10A. MODIFICATION OF CONTRACT/ORDER NO. NNJ13HA01C	
				10B. DATED (SEE ITEM 13) 02/08/2013	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended ☐ is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required) Net Decrease: -\$69,819.36
See Schedule

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) FAR 52.232-22 Limitation of Funds

E. IMPORTANT Contractor ☒ is not. ☐ is required to sign this document and return _____ 0 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

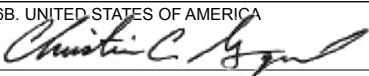
The purpose of this modification is to 1) decrease contract funding from \$150,773,229.42 to \$150,703,410.05, a decrease of (\$69,819.36); and 2) update contract clause B.5, Contract Funding (see page 2).

Payment Terms:

Net 30 days

FOB: Destination

Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Christian C. Gaspard	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA  (Signature of Contracting Officer)	16C. DATE SIGNED 3/31/2014

B.3 CONTRACT PHASE-IN (FIRM-FIXED PRICE)

The total firm fixed price of all phase-in effort for this contract is (b) (4) covering a 60-calendar day phase-in period from **March 1, 2013** through **April 30, 2013**.

(End of clause)

B.5 CONTRACT FUNDING (NFS 1852.232-81) (JUN 1990)

(a) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds clause, the total amount allotted by the Government to this contract is (b) (4). This allotment is for JSC Engineering, Technology and Science (JETS) efforts at NASA/JSC and covers the following estimated period of performance: May 1, 2013 through **April 21, 2014**.

(b) An additional amount of (b) (4) is obligated under this contract for payment of fee.

(End of clause)

Funding recapitulation (included for administrative purposes only):

TOTAL			
	Prior Funding Thru Mod 39	Current Action Mod 40	Total Funding Thru Mod 40
Cost	(b) (4)		
Fee			
FFP			
Total	\$150,773,229.41	(\$69,819.36)	\$150,703,410.05

DE-OBLIGATIONS				
PR #	PLI	ALI	WBS Element	Amount
4200505101	1	81	388443.02.07	\$ 10,000.00
4200500329	2	9	585777.08.10.34.02	\$ 5,000.00
4200478580	1	56	401769.06.04.03.02.05.01	\$ 1,483.45
4200500329	2	14	295670.01.06.02.36	\$ 45,000.00
4200491593	3	21	372217.05.10.01	\$ 2,508.00
4200505101	1	54	769347.05.08.14.02.03	\$ 177.91
4200505101	1	55	769347.05.08.23.01	\$ 650.00
4200485670	3	1	170786.07.02.13.01.50	\$ 5,000.00
Total				\$ (69,819.36)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT D CODE		PAGE OF PAGES 1 2	
2. AMENDMENT/MODIFICATION NO. 000041		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO. See Schedule	
5. PROJECT NO. (If applicable)		6. ISSUED BY NASA/Johnson Space Center Attn: Lawrence Miller/BH2 2101 NASA Parkway Houston TX 77058-3696		7. ADMINISTERED BY (If other than Item 6) NASA/Johnson Space Center Attn: Lawrence Miller/BH2 281.483.3916 lawrence.l.miller@nasa.gov 2101 NASA Parkway Houston TX 77058-3696	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) JACOBS 600 WILLIAM NORTHERN BLVD TULLAHOMA TN 37388-4729		9A. AMENDMENT OF SOLICITATION NO. (x)		9B. DATED (SEE ITEM 11)	
10A. MODIFICATION OF CONTRACT/ORDER NO. NNJ13HA01C		10B. DATED (SEE ITEM 13) 02/08/2013		10C. DATED (SEE ITEM 13) 02/08/2013	
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS		11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS		11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS	

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended ☐ is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)
See Schedule
Net Increase: \$18,857,722.11

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) FAR 52.232-22 Limitation of Funds

E. IMPORTANT Contractor ☒ is not. ☐ is required to sign this document and return _____ 0 _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)


The purpose of this modification is to 1) increase contract funding from \$150,703,410.05 to \$169,561,132.16, a increase of \$18,857,722.11; and 2) update contract clause B.5, Contract Funding (see page 2).

Payment Terms:

Net 30 days

FOB: Destination

Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Christian C. Gaspard	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA  (Signature of Contracting Officer)	16C. DATE SIGNED 4/7/2014

B.3 CONTRACT PHASE-IN (FIRM-FIXED PRICE)

The total firm fixed price of all phase-in effort for this contract is (b) (4) covering a 60-calendar day phase-in period from **March 1, 2013** through **April 30, 2013**.

(End of clause)

B.5 CONTRACT FUNDING (NFS 1852.232-81) (JUN 1990)

(a) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds clause, the total amount allotted by the Government to this contract is (b) (4). This allotment is for JSC Engineering, Technology and Science (JETS) efforts at NASA/JSC and covers the following estimated period of performance: May 1, 2013 through **June 2, 2014**.

(b) An additional amount of (b) (4) is obligated under this contract for payment of fee.

(End of clause)

Funding recapitulation (included for administrative purposes only):

TOTAL			
	Prior Funding Thru Mod 40	Current Action Mod 41	Total Funding Thru Mod 41
Cost	(b) (4)		
Fee			
FFP			
Total	\$150,703,410.05	\$18,857,722.11	\$169,561,132.16

OBLIGATIONS	
PR	Amount
4200508586	\$4,763,842.56
4200508585	\$6,921,491.98
4200508571	\$7,172,387.57
Total	\$18,857,722.11

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE	PAGE OF PAGES 1 6
2. AMENDMENT/MODIFICATION NO. 000042	3. EFFECTIVE DATE See Block 16C	4. REQUISITION/PURCHASE REQ. NO. See Schedule	5. PROJECT NO. (If applicable)
6. ISSUED BY NASA/Johnson Space Center Attn: Lawrence Miller/BH2 2101 NASA Parkway Houston TX 77058-3696	CODE JSC	7. ADMINISTERED BY (If other than Item 6) NASA/Johnson Space Center Attn: Lawrence Miller/BH2 281.483.3916 lawrence.l.miller@nasa.gov 2101 NASA Parkway Houston TX 77058-3696	CODE JSC
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) JACOBS 600 WILLIAM NORTHERN BLVD TULLAHOMA TN 37388-4729		(x) 9A. AMENDMENT OF SOLICITATION NO.	
		9B. DATED (SEE ITEM 11)	
		x 10A. MODIFICATION OF CONTRACT/ORDER NO. NNJ13HA01C	
		10B. DATED (SEE ITEM 13) 02/08/2013	
CODE 07486	FACILITY CODE		

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required) Net Increase: \$11,573,248.95

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
x	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: Mutual Agreement of the Parties
	D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor ☐ is not, ☒ is required to sign this document and return 1 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

The purpose of this modification is to 1) modify clause H.16, External Customer Effort; 2) incorporate the revision to Attachment J-11, Award Fee Plan (Appendix 3); 3) increase contract funding from \$169,561,132.16 to \$181,134,381.11, a increase of \$11,573,248.95; and 4) update contract clause B.5, Contract Funding. See additional pages.

Payment Terms:

Net 30 days

FOB: Destination

Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print) Lon F. Miller / Sr. Vice President and General Manager	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Christian C. Gaspard
15B. CONTRACTOR/OFFEROR  (Signature of person authorized to sign)	15C. DATE SIGNED 5/7/14
16B. UNITED STATES OF AMERICA  (Signature of Contracting Officer)	16C. DATE SIGNED 5/8/2014

B.3 CONTRACT PHASE-IN (FIRM-FIXED PRICE)

The total firm fixed price of all phase-in effort for this contract is (b) (4) covering a 60-calendar day phase-in period from March 1, 2013 through April 30, 2013.

(End of clause)

B.5 CONTRACT FUNDING (NFS 1852.232-81) (JUN 1990)

(a) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds clause, the total amount allotted by the Government to this contract is (b) (4). This allotment is for JSC Engineering, Technology and Science (JETS) efforts at NASA/JSC and covers the following estimated period of performance: May 1, 2013 through **June 26, 2014**.

(b) An additional amount of (b) (4) is obligated under this contract for payment of fee.

(End of clause)

TOTAL			
	Prior Funding Thru Mod 41	Current Action Mod 42	Total Funding Thru Mod 42
Cost Fee FFP	(b) (4)		
Total	\$169,561,132.16	\$11,573,248.95	\$181,134,381.11

OBLIGATIONS	
PR	Amount
4200512202	\$6,151,574.88
4200512223	\$2,941,648.58
4200512230	\$2,480,025.49
Total	\$11,573,248.95

H.16 EXTERNAL CUSTOMER EFFORT

The Government may allow nonexclusive, non-government use of Engineering and ARES Directorate facilities, Attachment J-25, by the contractor under this contract. If found appropriate by the Government through the Contracting Officer, the contractor and Government shall enter into a Reimbursable Space Act Agreement (RSAA) which will outline the benefit the Government will derive from the contractor's non-government use of designated property through rental receipts along with the terms and conditions related to the use of this equipment.

The contractor's use of such property for such purposes shall be subject to the terms and conditions of this contract.

The Government recognizes the benefit it derives from the contractor's non-government use of designated property through rental receipts as defined under the RSAA and that this benefit through the contractor's ability to provide non-government use services to its customers is dependent upon the reliability of the contractor's access to the designated property.

The contractor shall deliver external partners for NASA that off-set costs over the life of the JETS contract. The details of this commitment are documented in the JETS Award Fee Plan (Attachment J-11) and the JETS External Customer Plan (DRD MGMT-10).

The property authorized for non-Government use along with the terms and conditions for the use of this designated equipment will be set forth in the RSAA. Any dispute associated with this clause and/or the contractor's exercise of its authority for non-governmental use of the designated property shall be subject to the "Disputes" clause of this contract.

The Government reserves the right to enter into other reimbursable agreements within NASA or with other entities. Such agreements (e.g., Internal Task Agreements, Space Act Agreements) may require contractor support. In the case that contractor support is required in the execution of these other agreements; the contractor shall support these efforts via task orders issued by the Contracting Officer. As a matter of protocol and courtesy, the Government will provide notice before entering into other reimbursable agreements that would interfere with performance of a RSAA between the contractor and the Government or any other contractor work. The Government's intent is to avoid interfering with the execution of contractor agreements.

(End of clause)

APPENDIX 3

**AWARD FEE MEASUREMENT AND CRITERIA
FOR EXTERNAL CUSTOMER COMMITMENTS**

Award Fee Period 1:

For award fee period 1 the following criteria were used to evaluate external customer development:

Period		Criteria
1	5/1/13 to 12/31/13	(b) (4)

Award Fee Periods 2 – 18 Overview:



Period		Strategically Aligned Opportunities Successfully Closed During the Period	Total Offsetting Revenue Booked During the Period
2	1/1/14 to 6/30/14		
3	7/1/14 to 12/31/14		
4	1/1/15 to 6/30/15		
5	7/1/15 to 12/31/15		
6	1/1/16 to 6/30/16		
7	7/1/16 to 12/31/16		
8	1/1/17 to 6/30/17		
9	7/1/17 to 12/31/17		
10	1/1/18 to 6/30/18		
11	7/1/18 to 12/31/18		
12	1/1/19 to 6/30/19		
13	7/1/19 to 12/31/19		
14	1/1/20 to 6/30/20		
15	7/1/20 to 12/31/20		
16	1/1/21 to 6/30/21		
17	7/1/21 to 12/31/21		
18	1/1/22 to 4/30/22		

(b) (4)

Period		Strategically-Aligned Opportunities Identified and Brought to NASA
2	1/1/14 to 6/30/14	(b) (4)
3	7/1/14 to 12/31/14	
4	1/1/15 to 6/30/15	
5	7/1/15 to 12/31/15	
6	1/1/16 to 6/30/16	
7	7/1/16 to 12/31/16	
8	1/1/17 to 6/30/17	
9	7/1/17 to 12/31/17	
10	1/1/18 to 6/30/18	
11	7/1/18 to 12/31/18	
12	1/1/19 to 6/30/19	
13	7/1/19 to 12/31/19	
14	1/1/20 to 6/30/20	
15	7/1/20 to 12/31/20	
16	1/1/21 to 6/30/21	
17	7/1/21 to 12/31/21	
18	1/1/22 to 4/30/22	

(b) (4)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1 CONTRACT ID CODE		PAGE OF PAGES 1 4	
2 AMENDMENT/MODIFICATION NO. 000043		3 EFFECTIVE DATE See Block 16C		4 REQUISITION/PURCHASE REQ. NO.	
6 ISSUED BY NASA/Johnson Space Center Attn: Lawrence Miller/BH2 2101 NASA Parkway Houston TX 77058-3696		CODE JSC		5 PROJECT NO. (If applicable)	
		7 ADMINISTERED BY (If other than Item 6) NASA/Johnson Space Center Attn: Lawrence Miller/BH2 281.483.3916 lawrence.l.miller@nasa.gov 2101 NASA Parkway Houston TX 77058-3696		CODE JSC	
8 NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) JACOBS 600 WILLIAM NORTHERN BLVD TULLAHOMA TN 37388-4729		(x)		9A AMENDMENT OF SOLICITATION NO.	
				9B DATED (SEE ITEM 11)	
		x		10A MODIFICATION OF CONTRACT/ORDER NO. NNJ13HA01C	
				10B DATED (SEE ITEM 13) 02/08/2013	
CODE 07486		FACILITY CODE			

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required) Net Decrease: -\$69,209.92
See Schedule

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
x	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: Mutual Agreement of the Parties
	D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor ☐ is not, ☒ is required to sign this document and return 1 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible)

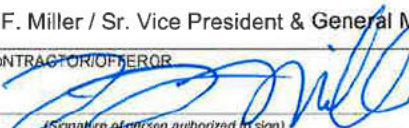
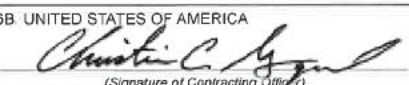
The purpose of this modification is to 1) decrease contract funding from \$181,134,381.11 to \$181,065,171.19, a decrease of \$69,209.92; 2) update contract clause B.5, Contract Funding; and 3) incorporate the clause at NFS 1852.239-72, Information Technology System Supply Chain Risk Assessment, into Section I of the contract; . See additional pages.

Payment Terms:

Net 30 days

FOB: Destination

Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print) Lon F. Miller / Sr. Vice President & General Manager		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Christian C. Gaspard	
15B. CONTRACTOR/OFFEROR  (Signature of person authorized to sign)	15C. DATE SIGNED 5/15/14	16B. UNITED STATES OF AMERICA  (Signature of Contracting Officer)	16C. DATE SIGNED 5/15/2014

B.3 CONTRACT PHASE-IN (FIRM-FIXED PRICE)

The total firm fixed price of all phase-in effort for this contract is (b) (4) covering a 60-calendar day phase-in period from March 1, 2013 through April 30, 2013.

(End of clause)

B.5 CONTRACT FUNDING (NFS 1852.232-81) (JUN 1990)

(a) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds clause, the total amount allotted by the Government to this contract is (b) (4). This allotment is for JSC Engineering, Technology and Science (JETS) efforts at NASA/JSC and covers the following estimated period of performance: May 1, 2013 through **June 26, 2014**.

(b) An additional amount of (b) (4) is obligated under this contract for payment of fee.

(End of clause)

TOTAL			
	Prior Funding Thru Mod 42	Current Action Mod 43	Total Funding Thru Mod 43
Cost	(b) (4)		
Fee			
FFP			
Total	\$181,134,381.11	(\$69,209.92)	\$181,065,171.19

DE-OBLIGATIONS				
PR #	PLI	ALI	WBS Element	Amount
4200463007	2	13	401769.06.06.01.02.10	\$ 45.38
4200474826	1	77	640773.11.01	\$ 15,000.00
4200481688	2	55	401769.06.06.01.02.10	\$ 1,105.29
4200481689	3	69	401769.06.06.01.02.10	\$ 846.19
4200485670	3	22	401769.06.06.01.02.10	\$ 4,824.89
4200491593	3	20	372217.05.10.01	\$ 3,992.00
4200496664	1	64	401769.06.06.01.02.10	\$ 10,000.00
4200496664	1	85	432938.11.01.05.05.02.02	\$ 2,150.75
4200500329	2	13	295670.01.06.02.33	\$ 3,000.00
4200502140	1	33	432938.11.01.05.05.02.02	\$ 18,680.00
4200502162	2	62	640773.02.01	\$ 1,965.42
4200505179	3	29	432938.11.01.05.05.02.02	\$ 7,600.00
Total				\$ (69,209.92)

I.26 INFORMATION TECHNOLOGY SYSTEM SUPPLY CHAIN RISK ASSESSMENT (1852.239-72) (APR 2014) (DEVIATION)

(a) Definitions –

“Acquire” means procure with appropriated funds by and for the use of NASA through purchase or lease.

“Information Technology (IT) System” means the combination of hardware components, software, and other equipment to make a system whose core purpose is to accomplish a data processing need such as the automatic acquisition, storage, analysis, evaluation, manipulation, management, movement, control, display, switching, interchange, transmission or reception of data. IT systems include ground systems in support of flight hardware. IT systems do not include—

- (i) Systems acquired by a contractor incidental to a contract and not directly charged to the contract, such as a contractor's payroll and personnel management system;
- (ii) Systems that do not process NASA information, i.e., any data which is collected, generated, maintained, or controlled on behalf of the Agency.
- (iii) Imbedded information technology that is used as an integral part of the product, but the principal function of which is not the acquisition, storage, analysis, evaluation, manipulation, management, movement, control, display, switching, interchange, transmission, or reception of data or information. For example, HVAC (heating, ventilation, and air conditioning) equipment such as thermostats or temperature control devices, and medical equipment where information technology is integral to its operation;
- (iv) Services in support of IT systems, such as help desk services; or
- (v) Flight hardware, which includes aircraft, spacecraft, artificial satellites, launch vehicles, balloon systems, sounding rockets, on-board instrument and technology demonstration systems, and equipment operated on the International Space Station; as well as prototypes, and engineering or brass boards created and used to test, troubleshoot, and refine air- and spacecraft hardware, software and procedures.

(b) Section 515 of the Consolidated and Further Continuing Appropriation Act, 2014 (Pub. L.113-76), requires NASA's Chief Information Officer (CIO) to review the contractor's supply chain for the risk of cyber-espionage or sabotage before acquiring any high-impact or moderate-impact IT systems. The NASA CIO will use the security categorization in the National Institute of Standards and Technology's (NIST) Federal Information Processing Standard Publication 199, “Standards for Security Categorization of Federal Information and Information Systems” to determine whether an IT system is high-impact or moderate-impact.

(c) The Contractor shall provide the following information for any IT system proposed to be provided:

- (1) A brief description of the item(s);
- (2) Vendor/manufacturer's company name and address; and

(3) If known, manufacturer's web site, and Commercial and Government Entity (CAGE) code.

(d) The Contracting Officer will provide the information referenced in paragraph (b) to the NASA CIO which will assess the risk of cyber-espionage or sabotage and make a determination if the acquisition of such system is in the national interest. Section 515 only allows NASA to acquire IT systems approved by the OCIO. NASA must reject any IT system the NASA CIO deems to be high impact or moderate impact unless it is determined the acquisition is in the national interest of the United States. The Government reserves the right to make this decision, without any further explanation to the Contractor. The Contracting Officer will advise the Contractor when any IT system represents an unacceptable risk to national security and may provide the Contractor with an opportunity to submit an alternative IT system.

(e) The Contractor shall insert the substance of this clause, including this paragraph (e), in all subcontracts involving the development or delivery of any information technology system.

(End of clause)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT D CODE		PAGE OF PAGES 1 2	
2. AMENDMENT/MODIFICATION NO. 000044		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO.	
6. ISSUED BY NASA/Johnson Space Center Attn: Lawrence Miller/BH2 2101 NASA Parkway Houston TX 77058-3696		CODE JSC		5. PROJECT NO. (If applicable) JSC	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) JACOBS 600 WILLIAM NORTHERN BLVD TULLAHOMA TN 37388-4729		(x)		9A. AMENDMENT OF SOLICITATION NO.	
CODE 07486		FACILITY CODE		9B. DATED (SEE ITEM 11)	
		x		10A. MODIFICATION OF CONTRACT/ORDER NO. NNJ13HA01C	
				10B. DATED (SEE ITEM 13) 02/08/2013	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended ☐ is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required) Net Decrease: -\$244,793.96
See Schedule

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) FAR 52.232-22 Limitation of Funds

E. IMPORTANT Contractor ☒ is not. ☐ is required to sign this document and return _____ 0 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

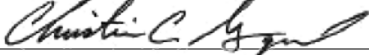
The purpose of this modification is to 1) decrease contract funding from \$181,065,171.19 to \$180,820,377.23, a decrease of \$244,793.96; and 2) update contract clause B.5, Contract Funding.

Payment Terms:

Net 30 days

FOB: Destination

Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Christian C. Gaspard	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA  (Signature of Contracting Officer)	16C. DATE SIGNED 6/2/2014

B.3 CONTRACT PHASE-IN (FIRM-FIXED PRICE)

The total firm fixed price of all phase-in effort for this contract is (b) (4) covering a 60-calendar day phase-in period from **March 1, 2013** through **April 30, 2013**.

(End of clause)

B.5 CONTRACT FUNDING (NFS 1852.232-81) (JUN 1990)

(a) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds clause, the total amount allotted by the Government to this contract is (b) (4). This allotment is for JSC Engineering, Technology and Science (JETS) efforts at NASA/JSC and covers the following estimated period of performance: May 1, 2013 through **June 26, 2014**.

(b) An additional amount of (b) (4) is obligated under this contract for payment of fee.

(End of clause)

TOTAL			
	Prior Funding Thru Mod 43	Current Action Mod 44	Total Funding Thru Mod 44
Cost Fee FFP	(b) (4)		
Total	\$181,065,171.19	(\$244,793.96)	\$180,820,377.23

DE-OBLIGATIONS				
PR #	PLI	ALI	WBS Element	Amount
4200508585	1	1	736466.01.08.05.05.19	\$ 24,600.00
4200512223	2	10	453797.04.01.03.06	\$ 2,184.00
4200496664	1	57	747797.06.14.03.99.10	\$ 25,000.00
4200512202	1	68	401769.06.04.01.02.04	\$ 37,861.52
4200505101	1	65	401769.06.04.01.02.06	\$ 87,313.33
4200481688	2	59	871056.06.02.01.09.01	\$ 550.51
4200491593	3	1	871056.06.02.01.09.01	\$ 18,104.00
4200508586	3	65	871056.06.02.01.09.01	\$ 307.71
4200500329	2	18	432938.09.01.05.05.03.77	\$ 135.00
4200512223	2	28	432938.09.01.05.05.03.86	\$ 20,000.00
4200505101	1	86	743588.09.02.01	\$ 2,468.28
4200502162	2	62	640773.02.01	\$ 18,770.00
4200508585	2	68	871056.06.04.02.02.15	\$ 7,499.61
Total				\$ (244,793.96)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT D CODE		PAGE OF PAGES 1 2	
2. AMENDMENT/MODIFICATION NO. 000045		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO. See Schedule	
5. PROJECT NO. (If applicable)		6. ISSUED BY NASA/Johnson Space Center Attn: Lawrence Miller/BH2 2101 NASA Parkway Houston TX 77058-3696		7. ADMINISTERED BY (If other than Item 6) NASA/Johnson Space Center Attn: Lawrence Miller/BH2 281.483.3916 lawrence.l.miller@nasa.gov 2101 NASA Parkway Houston TX 77058-3696	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) JACOBS 600 WILLIAM NORTHERN BLVD TULLAHOMA TN 37388-4729		9A. AMENDMENT OF SOLICITATION NO. (x)		9B. DATED (SEE ITEM 11)	
10A. MODIFICATION OF CONTRACT/ORDER NO. NNJ13HA01C		10B. DATED (SEE ITEM 13) 02/08/2013		10C. DATED (SEE ITEM 13) 02/08/2013	
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS		11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS		11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS	

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended ☐ is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)
See Schedule
Net Increase: \$20,324,869.36

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) FAR 52.232-22 Limitation of Funds

E. IMPORTANT Contractor ☒ is not. ☐ is required to sign this document and return _____ 0 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)


The purpose of this modification is to 1) increase contract funding from \$180,820,377.23 to \$201,145,246.59, a increase of \$20,324,869.36; and 2) update contract clause B.5, Contract Funding.

Payment Terms:

Net 30 days

FOB: Destination

Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Christian C. Gaspard	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA  (Signature of Contracting Officer)	16C. DATE SIGNED 6/3/2014

B.3 CONTRACT PHASE-IN (FIRM-FIXED PRICE)

The total firm fixed price of all phase-in effort for this contract is \$ (b) (4) covering a 60-calendar day phase-in period from **March 1, 2013** through **April 30, 2013**.

(End of clause)

B.5 CONTRACT FUNDING (NFS 1852.232-81) (JUN 1990)

(a) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds clause, the total amount allotted by the Government to this contract is \$ (b) (4) This allotment is for JSC Engineering, Technology and Science (JETS) efforts at NASA/JSC and covers the following estimated period of performance: May 1, 2013 through **August 12, 2014**.

(b) An additional amount of \$ (b) (4) is obligated under this contract for payment of fee.

(End of clause)

TOTAL			
	Prior Funding Thru Mod 44	Current Action Mod 45	Total Funding Thru Mod 45
Cost Fee FFP	(b) (4)		
Total	\$180,820,377.23	\$20,324,869.36	\$201,145,246.59

OBLIGATIONS	
PR	Amount
4200515748	\$10,028,787.17
4200515773	\$6,480,664.66
4200515774	\$3,815,417.53
Total	\$20,324,869.36

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE		PAGE OF PAGES 1 299	
2. AMENDMENT/MODIFICATION NO. 000046		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO.	
6. ISSUED BY NASA/Johnson Space Center Attn: Lawrence Miller/BH2 2101 NASA Parkway Houston TX 77058-3696		CODE JSC		5. PROJECT NO. (If applicable)	
		7. ADMINISTERED BY (If other than Item 6) NASA/Johnson Space Center Attn: Lawrence Miller/BH2 281.483.3916 lawrence.l.miller@nasa.gov 2101 NASA Parkway Houston TX 77058-3696		CODE JSC	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) JACOBS 600 WILLIAM NORTHERN BLVD TULLAHOMA TN 37388-4729		(x)		9A. AMENDMENT OF SOLICITATION NO.	
				9B. DATED (SEE ITEM 11)	
		X		10A. MODIFICATION OF CONTRACT/ORDER NO. NNJ13HA01C	
CODE 07486		FACILITY CODE		10B. DATED (SEE ITEM 13) 02/08/2013	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

See Schedule

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
X	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: Mutual Agreement of Both Parties
	D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor ☐ is not. ☒ is required to sign this document and return 1 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

The purpose of this modification is to 1) update Section B, E, F, G, and I of the contract to include Firm Fixed Price clauses; 2) revise clause B.4 to update the contract value; 3) incorporate clause I.27, Establishing a Minimum Wage for Contractors, into the contract; 4) modify sections J-02, Data Requirements List, J-02, DRDs, and Section C to update delivery types and quantities and Contract Management Report requirements; and 5) update the award fee period dates listed within Section J-11. See additional pages.

Payment Terms:

Net 30 days

Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print) Lon F. Miller / Sr. Vice President and General Manager		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Christian C. Gaspard	
15B. CONTRACTOR/OFFEROR  (Signature of person authorized to sign)	15C. DATE SIGNED 7/3/14	16B. UNITED STATES OF AMERICA christian.c.gaspard@nasa.gov <small>Digitally signed by christian.c.gaspard@nasa.gov DN: cn=christian.c.gaspard@nasa.gov Date: 2014.07.03 10:11:43 -0500</small>	16C. DATE SIGNED

SECTION B – SUPPLIES OR SERVICES AND PRICES/COSTS

B.1 LISTING OF CLAUSES INCORPORATED BY REFERENCE

Clause(s) at the beginning of this Section are incorporated by reference, with the same force and effect as if they were given in full text. Clauses incorporated by reference which require a fill-in by the Government include the text of the affected paragraph(s) only. This does not limit the clause to the affected paragraph(s). The Contractor is responsible for understanding and complying with the entire clause.

The following contract clauses pertinent to this section are hereby incorporated by reference:

I. FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1)

<u>CLAUSE NUMBER</u>	<u>DATE</u>	<u>TITLE</u>
--------------------------	-------------	--------------

NONE INCORPORATED BY REFERENCE

II. NASA FAR SUPPLEMENT (48 CFR CHAPTER 18) PROVISIONS

<u>CLAUSE NUMBER</u>	<u>DATE</u>	<u>TITLE</u>
--------------------------	-------------	--------------

NONE INCORPORATED BY REFERENCE

(End of Clauses Incorporated by Reference)

B.2 DESCRIPTION OF WORK

- (a) The Contractor shall provide all required services (except as may be expressly stated in this contract as furnished by the Government) necessary to successfully manage, deliver and/or perform, operate, maintain and provide all requirements in accordance with the Statement of Work (SOW) in Section C, as well as all Data Requirement Description (DRDs) provided in Section J, and all other requirements as specified throughout the contract.
- (b) In addition, the Contractor shall provide all resources and services (except as may be expressly stated in this contract as furnished by the Government) necessary to successfully perform all phase-in activities, in accordance with the Contract Phase-in Plan, Attachment J-10.

- (c) This is a performance-based, Indefinite Delivery/Indefinite Quantity (IDIQ) type contract. The contract performance will be measured in accordance with the Award Fee Plan, Section J-11.

(End of clause)

B.3 CONTRACT PHASE-IN (FIRM-FIXED PRICE)

The total firm fixed price of all phase-in effort for this contract is \$ (b) (4) covering a 60-calendar day phase-in period from March 1, 2013 through April 30, 2013.

(End of clause)

B.4 ESTIMATED CONTRACT VALUE

- (a) The estimated cost-reimbursable value (exclusive of fee) of this contract is \$ (b) (4)
- (b) The maximum available fee, excluding base fee, if any is \$ (b) (4) The base fee is \$^{(b) (4)} (*Applicable to cost-reimbursement only*)
- (c) The estimated firm-fixed price (excluding phase-in) value of this contract is \$^{(b) (4)} (*Applicable to fixed-price only*)
- (d) The total contract value comprising both fixed-price and cost-reimbursable task orders is **\$221,701,356.40**.

(End of clause)

B.5 CONTRACT FUNDING (NFS 1852.232-81) (JUN 1990) (Applicable to Cost-Reimbursement Only)

- (a) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds clause, the total amount allotted by the Government to this contract is \$ (b) (4) This allotment is for JSC Engineering, Technology and Science (JETS) efforts at NASA/JSC and covers the following estimated period of performance: May 1, 2013 through August 12, 2014..
- (b) An additional amount of \$ (b) (4) is obligated under this contract for payment of fee.

(End of clause)

B.6 MINIMUM/MAXIMUM IDIQ POTENTIAL CONTRACT VALUE

- (a) The maximum value, not to exceed (NTE) that can be ordered under the IDIQ provisions of the base contract period is \$1,018,800,000.

This NTE amount includes CR task orders. The amount includes both cost and fee. The maximum NTE amount is an estimate and does not reflect an obligation of the Government. The Government's obligation hereunder shall be based on the value specified in the task orders issued during the period of the contract.

- (b) The guaranteed minimum quantity of work initiated through the issuance of task orders, shall be \$20,000,000. The amount includes both cost and fee. There will be no further obligation on the part of the Government to issue additional task orders thereafter. If the Government orders supplies or services in excess of the minimum but not up to the maximum, this circumstance shall not constitute the basis for an equitable adjustment to any contract price estimated cost or fee.

(End of clause)

B.7 SPECIAL PROVISIONS REGARDING CONTRACT ADJUSTMENTS

- (a) Revisions to milestones, missions, schedules, manifests and/or processing requirements may be made by the government, and shall be deemed within the scope of this contract. The government will consider a proposed equitable adjustment (increase or decrease) to the contract value (cost and fee), when the estimated cost (exclusive of fee) of any single event exceeds \$650,000 or, when the aggregate amount of all events estimated to have a cost impact of \$650,000 or less (exclusive of fee) reaches \$7 million for the contract year unless the contractor's actions are a significant contributing factor causing a cost increase.
- (b) The government will consider an adjustment to the contract, for estimated cost only (no fee) for those events equal to or less than the above thresholds.

(End of clause)

B.8 FULLY BURDENED RATE TABLE FOR PRICING COST REIMBURSABLE (CR) TASK ORDERS

The purpose of this clause is to set forth the rates to be utilized in the subsequent negotiation of CR IDIQ Task Orders in accordance with clause H.6 - Task Ordering Procedure.

Pricing of all CR IDIQ task orders shall be in accordance with the negotiated rates set forth below. Under no circumstances shall the rates used to price out CR task orders

exceed the agreed upon rates in the Fully Burdened Rate Table shown below.

These following labor, indirect, and fee rates shall be used in establishment of the estimated cost of individual CR task orders. The labor rates are fully burdened composite team rates (prime and all subcontractors); but exclude prime fee. The Fee Rate is the maximum fee rate which may be proposed or negotiated for individual CR task orders during contract performance.

The parties agree that the fully burdened labor rates established below shall not be subject to any equitable adjustment (upwards or downwards), regardless of actual rates incurred during contract performance.

FULLY BURDENED RATE TABLE			5 Year Base Period					Option 1		Option 2	
Item #	Labor Category	Unit	Contract Year 1 Rates	Contract Year 2 Rates	Contract Year 3 Rates	Contract Year 4 Rates	Contract Year 5 Rates	Contract Years 6 Rates	Contract Years 7 Rates	Contract Years 8-Rates	Contract Years 9 Rates
			5/1/2013 - 4/30/2014	5/1/2014 – 4/30/2015	5/1/2015 – 4/30/2016	5/1/2016 – 4/30/2017	5/1/2017 – 4/30/2018	5/1/2018 – 4/30/2019	5/1/2019 – 4/30/2020	5/1/2020- 4/30/2021	5/1/2021- 4/30/2022
1	Program Manager	Hour	(b) (4)								
2	Manager	Hour									
3	Supervisor	Hour									
4	Scientist I	Hour									
5	Scientist II	Hour									
6	Scientist III	Hour									
7	Scientist IV	Hour									
8	Senior Scientist Specialist	Hour									
9	Engineer I	Hour									
10	Engineer II	Hour									
11	Engineer III	Hour									
12	Engineer IV	Hour									
13	Senior Engineer Specialist	Hour									
14	IT I	Hour									
15	IT II	Hour									
16	IT III	Hour									
17	IT IV	Hour									
18	Engineering Technologist I	Hour									
19	Engineering Technologist II	Hour									
20	Engineering Technologist III	Hour									
21	Senior Engineering Technologist	Hour									
22	Technician I	Hour									
23	Technician II	Hour									
24	Technician III	Hour									
25	Technician Specialist	Hour									
26	Business Specialist I	Hour									
27	Business Specialist II	Hour									
28	Business Specialist III	Hour									
29	Administration Specialist I	Hour									
30	Administration Specialist II	Hour									
31	Administration Specialist III	Hour									
32	Projects Controls Specialist I	Hour									
33	Projects Controls Specialist II	Hour									
34	Projects Controls Specialist III	Hour									

35	Planner/Scheduler I	Hour
36	Planner/Scheduler II	Hour
37	Planner/Scheduler III	Hour
38	Configuration Management Specialist I	Hour
39	Configuration Management Specialist II	Hour
40	Quality Assurance Specialist I	Hour
41	Quality Assurance Specialist II	Hour
42	Product Assurance Manager	Hour
43	Safety Manager	Hour
44	Safety Engineer I	Hour
45	Safety Engineer II	Hour
46	Safety Engineer III	Hour
47	Quality Engineer I	Hour
48	Quality Engineer II	Hour
49	Quality Engineer III	Hour
50	Software Quality Assurance Engineer I	Hour
51	Software Quality Assurance Engineer II	Hour
52	Software Quality Assurance Engineer III	Hour
53	Software Quality Assurance Engineer IV	Hour
54	Indirect Cost Rate to be applied to Non-Labor Resources if required by a Task Order (Identify the Rate and the basis of application)	Over-head
		G&A
55	NTE Award Fee Rate	

(b) (4)

(End of clause)

B.9 LIMITATION OF FUNDS (FIXED-PRICE CONTRACT) (NFS 1852.232-77)
(MAR 1989) (Applicable to fixed-price only)

(a) Of the total price estimated in Schedule B.4(b), the sum of \$0.00 is presently available for payment and allotted to this contract. It is anticipated that from time to time additional funds will be allocated to the contract in accordance with the following schedule, until the total price of said task orders is allotted:

SCHEDULE FOR ALLOTMENT OF FUNDS

Date	Amounts
TBD	TBD

(b) The Contractor agrees to perform or have performed work on the task orders specified in paragraph (a) of this clause up to the point at which, if this contract is terminated pursuant to the Termination for Convenience of the Government clause of this contract, the total amount payable by the Government (including amounts payable for subcontracts and settlement costs) pursuant to paragraphs (f) and (g) of that clause would, in the exercise of reasonable judgment by the Contractor, approximate the total amount at the time allotted to the contract. The Contractor is not obligated to continue performance of the work beyond that point. The Government is not obligated in any event to pay or reimburse the Contractor more than the amount from time to time allotted to the contract, anything to the contrary in the Termination for Convenience of the Government clause notwithstanding.

(c) (1) It is contemplated that funds presently allotted to this contract will cover the work to be performed until TBD.

(2) If funds allotted are considered by the Contractor to be inadequate to cover the work to be performed until that date, or an agreed date substituted for it, the Contractor shall notify the Contracting Officer in writing when within the next 60 days the work will reach a point at which, if the contract is terminated pursuant to the Termination for Convenience of the Government clause of this contract, the total amount payable by the Government (including amounts payable for subcontracts and settlement costs) pursuant to paragraphs (f) and (g) of that clause will approximate 75 percent of the total amount then allotted to the contract.

(3) (i) The notice shall state the estimate when the point referred to in paragraph (c)(2) of this clause will be reached and the estimated amount of additional funds required to continue performance to the date specified in paragraph (c)(1) of this clause, or an agreed date substituted for it.

(ii) The Contractor shall, 60 days in advance of the date specified in paragraph (c)(1) of this clause, or an agreed date substituted for it, advise the Contracting Officer in writing as to the estimated amount of additional funds required for the timely performance of the contract for a further period as may be specified in the contract or otherwise agreed to by the parties.

(4) If, after the notification referred to in paragraph (c)(3)(ii) of this clause, additional funds are not allotted by the date specified in paragraph (c)(1) of this clause, or an agreed date substituted for it, the Contracting Officer shall, upon the Contractor's written request, terminate this contract on that date or on the date set forth in the request, whichever is later, pursuant to the Termination for Convenience of the Government clause.

(d) When additional funds are allotted from time to time for continued performance of the work under this contract, the parties shall agree on the applicable period of contract performance to be covered by these funds. The provisions of paragraphs (b) and (c) of this clause shall apply to these additional allotted funds and the substituted date pertaining to them, and the contract shall be modified accordingly.

(e) If, solely by reason of the Government's failure to allot additional funds in amounts sufficient for the timely performance of this contract, the Contractor incurs additional costs or is delayed in the performance of the work under this contract, and if additional funds are allotted, an equitable adjustment shall be made in the price or prices (including appropriate target, billing, and ceiling prices where applicable) of the services to be performed, or in the time of delivery, or both.

(f) The Government may at any time before termination, and, with the consent of the Contractor, after notice of termination, allot additional funds for this contract.

(g) The provisions of this clause with respect to termination shall in no way be deemed to limit the rights of the Government under the default clause of this contract. The provisions of this Limitation of Funds clause are limited to the work on and allotment of funds for the items set forth in paragraph (a) of this clause. This clause shall become inoperative upon the allotment of funds for the total price of said work except for rights and obligations then existing under this clause.

(h) Nothing in this clause shall affect the right of the Government to terminate this contract pursuant to the Termination for Convenience of the Government clause of this contract.

(End of clause)

[END OF SECTION]

SECTION C – STATEMENT OF WORK

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Statement of Work (SOW) Structure

The Statement of Work includes a Management and Administrative Requirements section, (Section 1.0), which includes activities that are fairly constant, predictable, and provide the framework under which the ordered work may occur; and an Ordered Products section (Section 2.0) that provides for the ordering and delivery of products and services. Task orders (TOs) under Section 2.0 can be either completion form or level of effort (LOE). Multiple task orders will be in effect during the performance period of the contract. Technical and performance requirements will be specified in the task orders.

The structure of the SOW should not be construed as defining a required organizational configuration. The types of work and services described herein may more aptly be distributed over multiple organizations whose purpose is to provide the products and services required by the Engineering and Astromaterials Research and Exploration Science (ARES) Directorates and their customers.

1.0 Management and Administration Requirements

1.1 Management

1.1.1 Contract Management

The contractor shall develop and implement management functions to ensure that all work activities are accomplished in accordance with contract provisions. The contractor shall provide and maintain management systems for the planning, organization, control, and reporting of all activities required by this contract. These systems shall assure accomplishment of technical and schedule requirements and cost objectives. The contractor shall document these management functions and systems in the Contract Management Plan, in accordance with Data Requirement Description (DRD) MGMT-01 which defines and integrates all work activities and requirements across the contract, including subcontractor effort. The contractor's management approach shall fully integrate all related plans and activities, including those of subcontractors and major vendors.

The contractor shall provide and maintain a Contract Work Breakdown Structure (WBS) in accordance with DRD MGMT-02, Work Breakdown Structure and Dictionary. The contractor shall use the Contract WBS as the framework for contract planning, budgeting, cost reporting, and schedule status reporting to the Government.

The contractor shall provide reporting in accordance with DRD MGMT-03. The contractor shall conduct monthly business management meetings with NASA management to status the contractor's financial and technical activities under the contract per DRD MGMT-03. Once per quarter, the business management meeting will be replaced with a Contract Management Summary Review (CMSR) per DRD MGMT-03.

The contractor shall develop and implement a plan to continuously identify and propose initiatives to infuse advanced technology, innovations, and industry best practices, that promote improvements in quality, capability, and overall efficiency within all areas of responsibility defined in this Statement of Work (SOW) per DRD MGMT-11, Technology, Innovations, and Process Improvement Plan and Report (TIPI) Plan. The contractor shall report potential initiatives per DRD MGMT-03, Management Report. The initiatives will be implemented through task orders under Section 2.

The Contractor shall develop and implement an External Customer Plan in accordance with DRD MGMT-10 and clause H.16, EXTERNAL CUSTOMER EFFORT, to recruit and secure external customers. The intent of the plan is to allow the contractor to market and use the Engineering and Astromaterials Research and Exploration Science (ARES) Directorate unique facilities (and other facilities as directed), contractor personnel, limited NASA personnel, and equipment for the purposes of retaining skills and offsetting the government's cost of maintaining and improving technical capabilities without compromising safety, process integrity or infrastructure resources. The contractor shall identify potential external customers or external customer initiatives per Management Report DRD MGMT-03.

The contractor shall develop and implement an Organizational Conflict of Interest (OCI) Mitigation Plan in accordance with DRD MGMT-12.

1.1.2 Financial Management

The contractor shall provide financial reporting by cost element and include subcontractor financial data. The contractor shall provide financial and supplemental reporting in accordance with the DRD BP-01, NF533 Cost and Data Reporting.

The contractor shall develop and upon the Contracting Officer's approval, implement a method of tracking and applying all costs associated with the SOW Section 1. These costs shall be appropriately allocated to each task order issued under Section 2.

1.1.3 Property Management

The contractor shall provide, and implement, a Government Property Management Plan in accordance with DRD BP-09. The contractor shall provide Logistics Reporting in compliance with DRD BP-07. Initial Property accountability to be transferred to the Contractor is given in Appendix J-4 Government Furnished Property (off-site).

1.1.4 Data Management

The contractor shall develop and implement a Data Management Plan in accordance with DRD BP-02. This plan shall describe the management, preparation, control, and dissemination of data

required under this contract. This plan shall define an integrated approach for data management including management of documentation. The data management plan shall include provisions for electronic on-line access to contractor management systems including, access and interface requirements. The contractor shall provide the Government with required training to access and use these systems.

The contractor shall maintain, operate, and secure data and software systems which provide for the management, collection, preparation, publication, control and dissemination of information and technical data required by this contract. Proprietary or non-standard applications, protocols, or Information Technology (IT) systems shall not be utilized without prior NASA contractual authorization.

The contractor shall develop and implement uniform IT management and operational approaches for all IT associated with this contract. The contractor shall develop and implement an IT capital planning and investment control process in accordance with DRD IT-01, Information Technology Capital Planning and Investment Control (CPIC) Document and an IT Security Plan in accordance with DRD IT-02. IT management and Security shall extend to all corporate (non-government provided) IT areas. It will not cover NASA provided workstations, facility equipment, software, networks, or IT Data.

1.1.5 Procurement

The contractor shall procure supplies, services and materials required in the performance of the SOW. Purchases under this contract may include a wide range of components, assemblies and commercial items. Purchases authorized by Task Order (Section 2) should be charged to that Task Order.

For all flight materials and products and as directed by task order, the contractor shall maintain identification data throughout the life of this contract including: material/product receipt, all stages of production, delivery, and installation.

The contractor shall perform off-site shipping and receiving functions for the JETS including receiving and stocking of materials, mechanical and electronic parts, and inspection and receiving of finished products.

1.2 Institutional Compliances

1.2.1 Safety and Health

The contractor shall comply with JPR 1700.1, "JSC Safety and Health Handbook" for work done on-site at the JSC. The contractor shall develop and implement a Safety and Health Plan in accordance with DRD SMA-03; conduct a Safety and Health Program Self Evaluation in

accordance with DRD SMA-04; and provide a Lessons Learned Program Plan and Lessons Learned in accordance with DRD SMA-05.

The contractor shall support compliance with the JSC Voluntary Protection Program (VPP) STAR certification through VPP audits and other activities.

1.2.2 Environmental

The contractor shall conduct all on-site work in compliance with JSC's Environmental Management System (EMS) in accordance with JPR 8550.1, Johnson Space Center Environmental Compliance Procedural Requirements.

1.2.3 Quality Management

JSC has SAE AS9100 registration and intends to maintain it. The contractor shall perform all work on-site in accordance with the JSC Quality Management System and shall ensure work involving this contract performed off-site is in accordance with SAE AS9100. The Contractor shall develop and implement a Quality Plan in accordance with DRD SMA-01 for work conducted off-site. On-site quality assurance functions, responsibilities, and tasks will be specified, if required, per Task Order.

The contractor shall register with and be a participative member of the Government-Industry Data Exchange Program (GIDEP). The contractor shall respond to all GIDEP notifications and NASA Advisories issued from the JSC NASA-Advisory/GIDEP Documents Status Tracking System in accordance with DRD SMA-07.

The contractor shall report and resolve problems involving spaceflight equipment, spaceflight-like equipment and critical Ground Support Equipment in accordance with DRD SMA-06 Problem Reporting and Corrective Action (PRACA) for the JSC Government Furnished Equipment (GFE) and Flight Products.

The contractor shall comply with the requirements in Attachment J-24, Quality Requirements.

1.2.4 Configuration Management

The contractor shall develop and implement a Flight Products Configuration Management (CM) Plan in accordance with DRD BP-03. The plan shall define processes for CM of hardware, software and firmware, engineering drawings, hardware parts lists, as-designed vs. as-built vs. as-qualified hardware, configuration accounting, and maintenance. The plan shall define processes for documentation and tracking of shelf life, operational life, and time cycle life, for life limited components and assemblies. The contractor shall prepare and coordinate appropriate configuration control board directives, waivers, deviations, exceptions, and maintain accurate, complete, and current CM data.

The following requirements are applicable:

- A. Hardware and software shall be designated per the definitions provided in JPR 1281.8, Product Identification and Traceability.
- B. Class I, Class II and Ground Support Equipment (GSE) design shall be documented in released drawings or electronic files.
- C. The drawing release/review process shall comply with JPR 8500.4.
- D. Class I, Class II and GSE hardware and software as built configuration shall match a released configuration.
- E. The plan shall address hardware and software configuration control processes defined in Section 9.0 of EA-WI-027.
- F. The CM plan shall address all of the requirements of the applicable documents in Section 5.0 of EA-WI-027.

2.0 Ordered Products

2.1 Product Safety and Mission Assurance

The contractor shall perform tasks associated with product design, development, test, and operations including: hazard analyses, risk assessments, system safety planning, reliability and maintainability predictions, Failure Modes and Effects Analysis (FMEA), and development of Critical Item Lists (CIL), life-cycle (wear-out) estimates for maintainable items, Limited Life Items identification, and qualitative maintainability assessment.

The contractor shall provide documentation including: hazard analysis reports, risk assessment reports, FMEA worksheets, Critical Items Lists, limited life item lists, certification data packages, and acceptance data packages. The contractor shall comply with the appropriate DRD based upon the Program/Project supported.

2.2 Hardware and Software

Deliverable end items may include: hardware and software, support equipment, prototypes, electronic and computer and camera systems, mockups, test articles, training hardware, laboratory test equipment, and research instruments. The government may require support for Government developed flight hardware, or may ask for turnkey delivery of flight equipment, or anything in between. The requirements will be specified in a TO.

The types of activities requested may include, but are not limited to:

- Advanced studies

- Analysis and trade studies
- Concept definition
- Systems Engineering and Integration
- Mission architecture definition, design, and planning
- Engineering Design and Development
- Manufacturing, testing, verification, and certification
- Sustaining engineering activities [hardware resupply, refurbishment, mission hardware support activities, failure analysis, repair, operating procedures]
- Flight Hardware Requirements Survey, Assessment, and Consolidation
- Engineering, Quality, and Safety Analyses

Types of Data and Design Documentation required may include but is not limited to:

- Design review documentation
- Safety review documentation
- Test, verification, and certification data
- Management Documentation
- Analysis Data Products

The work processes and procedures used to satisfactorily complete GFE and flight products are documented and located in the JETS Technical Library and specified on each task order.

2.2.1 Hardware and Software Products

The contractor shall perform tasks associated with product development including: design, fabrication, test, maintenance, repair, hardware and software integration, pre and post use processing, procedure development, and procedures for operational use for system and subsystem components for NASA program products.

The contractor shall provide documentation including: engineering drawings, analysis reports, technical specifications and reports, test procedures and reports, and operations manuals as appropriate for hardware or software type.

2.2.2 Flight Hardware and Software Certification

The contractor shall certify flight hardware and software. The contractor shall perform tasks including: analyses, certification test plan development, certification, verification, and acceptance testing of hardware and software components, subsystems and systems.

2.2.3 Hardware and Software Testing

The contractor shall perform or support testing, including the development and execution of plans and procedures, and the generation and analysis of data, and reports which document the performance of the product under test.

Testing is used in all phases of product development, i.e. design, development, evaluation, certification/qualification, and life determination. Testing is applied to materials, components, sub assemblies, and complete assemblies. Testing often involves the modification of test systems and parameters to produce the environment required by the requester to meet particular objectives and margin demonstrations. Validation of test system readiness, including pre-test reviews is often required.

Types of testing include but are not limited to:

- Thermal
- Vacuum and Thermal Vacuum
- Shock and Vibration
- Acoustics
- Oxygen Acceptance and initial wetting
- Electromagnetic Interference/Electromagnetic Compatibility
- Ionizing Radiation
- Vacuum Ultraviolet Light
- Atomic Oxygen
- Static/Dynamic Loads
- Contrast Ratio, Bi-directional Reflectance Distribution Function (BDRF)
- Function Performance
- Life Demonstration
- Software Verification and Validation
- Destructive Analysis and Lot Acceptance
- Failure Detection, Isolation, and Recovery
- Energy storage and conversion
- Power Distribution
- Failure modes
- Toxicity Screening by analytical means
- Off-gassing
- Wet Chemistry
- Metallurgy

2.2.4 Training

The contractor shall develop and maintain training capabilities, materials, and systems and provide training to users, including astronauts.

2.2.5 Database Development

The contractor shall design, develop, test, implement, acquire, and document databases required to support data requirements. Technical databases include: real-time data acquisition, data archival, data analysis, requirements development, design criteria data, flight parameters data, and hardware lists.

2.2.6 Website Development

The contractor shall design, develop, modify, test and install Websites. The contractor shall provide configuration documentation and training on new and modified websites.

2.3 Analysis and Assessment

2.3.1 Engineering Analysis and Assessments

The contractor shall provide assessments which include: space flight materials usage, metallographic, fracture control, structural integrity, loads model verification, avionics systems integrity, electrical systems integrity, hardware and software integration, hardware and software requirements, change requests, specifications, and test plans, test procedures, results and analyses, crew procedures, flight rules and flight techniques, critical technologies, data and products to support software independent verification and validation, and safety products for hardware and software.

2.3.2 Analytical Capability

The contractor shall develop and implement analytical tools, and math models; and modify existing analytical tools, and math models to support evolving engineering and science analysis requirements. The contractor shall validate the math model implementations and tool configurations using data from bench tests, ground tests, flight tests, and/or crosschecks with other equivalent independently configured tools. The contractor shall develop computational capabilities, and modify existing computational capabilities necessary to support the generation of the engineering and science analysis products. The contractor shall develop documentation on the definition, configuration, and verification of the analytical math models. The contractor shall also develop documentation on the configuration and verification of the NASA unique and commercial off the shelf software tools. The contractor shall provide training on how to use the NASA unique software tools to perform the associated engineering and science analyses.

2.3.3 Analytical Products

The contractor shall provide analytical products associated with engineering and science requirements. Products shall include analytical math models, and results including data, databases, algorithms, and interpretation of results.

This section includes but is not limited to analytical products associated with engineering and science requirements such as: aerodynamics and aerothermodynamics; communications and tracking; environmental control and life support; fracture mechanics and fracture analysis;

guidance, navigation, and control; imagery; meteoroid and orbital debris; space environments and contamination; structural loads and stress; autonomous flight management; contact dynamics; electronics; fluid dynamics; intelligent systems; kinematics including robotics; mass properties; power management and distribution; propellant management; rendezvous, proximity operations, and capture; structural dynamics and vibration; electromagnetic effects; thermal management; and spacecraft shielding designs.

2.3.4 Mission Services

The contractor shall perform technical, administrative, and documentation duties for continuous operation of Space Vehicle missions including: preparation before flight, pre-flight timeline reviews, real-time console support, and follow-up after each flight and expedition.

2.3.5 Technical Services for Reviews, Boards, and Panels

The contractor shall coordinate technical meetings, prepare system documentation, provide mission related products, and provide technical and administrative support to program reviews, design reviews, control boards, panels, and similar efforts.

2.4 Facilities

2.4.1 Facility Operations & Maintenance

The contractor shall perform facility maintenance and operations. The contractor shall operate, administer, and maintain computational, analytical, data and control systems and Government owned networks in support of facilities.

Tasks may include but are not limited to: integration of requirements; verification of operational readiness; test buildup, preparation of hardware and software interface equipment, instrumentation, and control systems; new procedure and process development; maintenance of facility work instructions, databases and websites; identification and control of hazards, conduct of operations in hazardous environments which include human rated test operations, use of robotics, vibration and acoustic, and electromagnetic, structural testing, extreme temperatures, gaseous and liquid oxygen, gaseous hydrogen, methane, carbon monoxide, carbon dioxide, nitrogen, cryogenics, high pressure gas systems and toxic materials, such as anhydrous ammonia; and mitigation of hazardous conditions.

Tasks may also include but are not limited to: operating, administering and maintaining the computational, analytical, data and control systems and Government owned networks in support of facilities. This includes: mainframes; mini computers; servers; workstations (including laptops); software, and applications (including COTS and non-COTS); instrumentation; acquisition and control systems; and associated support equipment. Tasks may also include

configuration management of facility documentation and systems, including pressure vessel compliance.

2.4.2 Facility Modifications

The contractor shall evaluate, design, fabricate, install, and test facility equipment and systems. The contractor shall modify facility operational readiness status and verify readiness of facility equipment and systems.

2.4.3 Facility and Laboratory Oversight and Integration

The contractor shall implement common processes and approaches across multiple facilities to enhance the efficiencies and capabilities of facilities.

2.5 Research and Development

2.5.1 Engineering Research

The contractor shall perform research and development in areas such as: dexterous robotics, vision and perception technologies, automated systems including rendezvous and mating systems, materials technology, thermal control systems (passive and active), life support systems, space suit systems, mechanical systems, Micro-electromechanical Systems (MEMS), Nanotechnology, Guidance and Navigation control systems, Entry, Descent, Landing, energy storage and conversion systems, propulsion systems, pyrotechnics, in-situ resource utilization systems, propellant liquefaction and storage systems, on-orbit manufacturing systems, electromagnetic systems, sensor systems, tracking systems, power transmission systems, avionics architecture systems, communication systems, microwave systems, instrumentation and wireless instrumentation, and artificial intelligence systems.

2.5.2 Astromaterials, Curation, and Sample Handling

The contractor shall perform curation of samples including: Apollo Lunar samples, Antarctic meteorites, Genesis mission samples, Stardust mission samples, Hayabusa mission samples, cosmic dust collected at high altitude, and space exposed hardware. The contractor shall perform tasks which characterize and preserve collections in pristine condition, store them under controlled conditions, maintain security appropriate to the type of samples, distribute information about materials to the scientific and academic communities, prepare and distribute samples for allocation to approved investigators for scientific and educational purposes in accordance with allocation plans developed by NASA panels, document and inventory such samples, in accordance with approved procedures for each collection. The contractor shall perform research and development tasks in support of future sample return missions and mission proposals.

2.5.3 Planetary Exploration and Science Mission Development

The contractor shall conduct planetary exploration development in analog science mission operations; robotic and human science and exploration mission operations; and science data system development, management and analysis. The contractor shall test and develop new approaches for conducting science and exploration operations, document lessons learned and apply them to the other planetary exploration development activities to build successful end-to-end missions or mission concepts.

2.5.4 Astromaterials Research

The contractor shall conduct research in basic and applied space and planetary science in order to achieve science objectives, and for mission planning and operations. The contractor shall share their results through publications, conference presentations, education, and outreach activities. Contractor personnel shall participate as Principal Investigators or Co-Investigators on externally-funded research and mission proposals. Mission planning and operations includes instrument development and calibration, laboratory utilization, and applying “ground truth” derived from samples to remotely-sensed planetary datasets. The contractor shall follow approved sample handling procedures in accordance with each collection in order to preserve scientific integrity, security, and documentation requirements.

2.5.5 Earth Science

The contractor shall facilitate broad use of Earth imagery from crewed platforms for science, education, outreach, and general public interests by performing real-time and on-call mission services. The services include: Crew Earth Observation (CEO) photography, other means of photographic and imagery collection for all crewed vehicles, ephemeris planning and operational resolution for Earth Science remote sensing payloads. The contractor shall operate the Earth Observation Laboratory and maintain desktop CEO operational software for conducting CEO operations. The contractor shall geolocate, interpret, catalog, maintain, and distribute returned imagery. The contractor shall train astronauts in Earth science and remote sensing mission objectives for Earth viewing missions.

2.5.6 Image Science and Analysis

The contractor shall perform quantitative engineering image analyses and imagery integration for: problem solving, mission safety, vehicle design, vehicle maintenance, vehicle performance, and the Certification of Flight Readiness process. The contractor shall utilize the Image Science and Analysis Laboratory and other tools for NASA programs for problem solving, mission safety, vehicle maintenance, vehicle performance and the Certification of Flight Readiness Process. The contractor shall perform analyses on film (still and motion), video, and electronic

imagery acquired from ground, airborne, ship-based and flight cameras. The contractor shall provide expertise in image analysis which includes static 2D and 3D measurements, high resolution motion tracking, comprehensive imagery screening and camera calibrations. The contractor shall also provide expertise on imagery formats, visible imagery, IR imagery, high speed imagery, optics, resolving capability, imagery management, imagery integration, launch and landing imagery screening, vehicle inspection techniques and parachute imagery analysis. The contractor shall provide on-call support for vehicle anomaly investigations, and damage assessments. The contractor shall support planning forums, integration activity, and image accountability scheme development to ensure the acquisition of imagery suitable for assigned analysis tasks.

2.5.7 Orbital Debris

The contractor shall perform research in the measurement and modeling of orbital debris. The contractor shall define the orbital debris environment and assess its risks. The contractor shall maintain and verify orbital debris environmental models, which include long-term prediction models for evaluating debris mitigation practices. The contractor shall provide spacecraft and reentry risk assessments for satellite breakups. The contractor shall develop debris mitigation techniques and practices to limit the generation of debris.

2.5.8 Hypervelocity Impact Technology and Risk Assessment

The contractor shall assess short and long term risks from micrometeoroids and orbital debris (MMOD) and secondary ejecta to spacecraft and surface elements, including the International Space Station, extravehicular activity mobility units, lunar/asteroid landers, robots and other spacecraft. The contractor shall evaluate and develop MMOD risk reduction techniques to meet MMOD protection requirements. The contractor shall inspect returned spacecraft surfaces for MMOD damage, recover samples for analysis of residual projectile materials, and compare actual damage found in the ground-inspections or seen on-orbit to predicted damage. The contractor shall maintain and upgrade MMOD risk assessment software and shielding design tools.

2.6 Special Projects

The contractor shall perform research, planning, designing, and execution of special projects in support of NASA objectives.

2.7 Education and Outreach

The contractor shall plan and implement educational and outreach activities including special projects, curriculum development, demonstrations, displays, seminars, special events,

conferences, and presentations. The contractor shall develop outreach materials including brochures, multi-media products, exhibit materials, and newsletters.

SECTION E – INSPECTION AND ACCEPTANCE

E.1 LISTING OF CLAUSES INCORPORATED BY REFERENCE

Clause(s) at the beginning of this Section are incorporated by reference, with the same force and effect as if they were given in full text. Clauses incorporated by reference which require a fill-in by the Government include the text of the affected paragraph(s) only. This does not limit the clause to the affected paragraph(s). The Contractor is responsible for understanding and complying with the entire clause.

The following contract clauses pertinent to this section are hereby incorporated by reference:

I. FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1)

<u>CLAUSE NUMBER</u>	<u>DATE</u>	<u>TITLE</u>
52.246-2	AUG 1996	INSPECTION OF SUPPLIES – FIXED-PRICE <i>(Applicable to fixed-price only)</i>
52.246-3	MAY 2001	INSPECTION OF SUPPLIES – COST REIMBURSEMENT <i>(Applicable to cost-reimbursement only)</i>
52.246-4	AUG 1996	INSPECTION OF SERVICES – FIXED-PRICE <i>(Applicable to fixed-price only)</i>
52.246-5	APR 1984	INSPECTION OF SERVICES – COST- REIMBURSEMENT <i>(Applicable to cost-reimbursement only)</i>
52.246-7	AUG 1996	INSPECTION OF RESEARCH AND DEVELOPMENT – FIXED-PRICE <i>(Applicable to fixed- price only)</i>
52.246-8	MAY 2001	INSPECTION OF RESEARCH AND DEVELOPMENT - COST REIMBURSEMENT <i>(Applicable to cost-reimbursement only)</i>
52.246-13	AUG 1996	INSPECTION- DISMANTLING, DEMOLITION, OR REMOVAL OF IMPROVEMENTS
52.246-15	APR 1984	CERTIFICATE OF CONFORMANCE

II. NASA FAR SUPPLEMENT (48 CFR CHAPTER 18) PROVISIONS

CLAUSE**NUMBER****DATE****TITLE**

1852.246-73 MAR 1997 HUMAN SPACE FLIGHT ITEM

(End of Clauses Incorporated by Reference)

E.2 INSPECTION AND ACCEPTANCE

Final inspection and acceptance shall be accomplished by the Contracting Officer or his/her duly authorized representative.

(End of Clause)

E.3 HIGHER- LEVEL QUALITY REQUIREMENT (FAR 52.246-11) (FEB 1999)

The Contractor shall comply with the higher-level quality standards selected below.

<u>Title</u>	<u>Number/ Date</u>	<u>Tailoring</u>
Quality Management Systems –Requirements for Aviation, Space and Defense Organizations	SAE Certified AS9100C (Off-Site)/2009	Specific tailoring is contained in JSC Work Instructions. Independent certification/registration is required.

(End of Clause)

E.4 GOVERNMENT CONTRACT QUALITY ASSURANCE FUNCTIONS (NFS 1852.246-71) (OCT 1988)

In accordance with the inspection clause of this contract, the Government intends to perform the following functions at the locations indicated:

Government Quality Assurance functions are typically performed by the JSC Safety and Mission Assurance (S&MA) Directorate, its support contractor or delegated representatives.

<u>ITEM</u>	<u>QUALITY ASSURANCE FUNCTION</u>	<u>Location</u>
1	Perform surveillance, Government mandatory inspections, acceptance, procurement quality assurance and source inspections.	JSC, Contractor's Facility(s), Subcontractor and Vendors' Facilities

(End of Clause)

E.5 MATERIAL INSPECTION AND RECEIVING REPORT (NFS 1852.246-72)
(AUG 2003)

(a) At the time of each delivery to the Government under this contract, the Contractor shall furnish a Material Inspection and Receiving Report (DD Form 250 series) prepared in 3 (three) copies, an original and 2 (two) copies.

(b) The Contractor shall prepare the DD Form 250 in accordance with NASA FAR Supplement 1846.6. The Contractor shall enclose the copies of the DD Form 250 in the package or seal them in a waterproof envelope, which shall be securely attached to the exterior of the package in the most protected location.

(c) When more than one package is involved in a shipment, the Contractor shall list on the DD Form 250, as additional information, the quantity of packages and the package numbers. The Contractor shall forward the DD Form 250 with the lowest numbered package of the shipment and print the words "CONTAINS DD FORM 250" on the package.

(End of clause)

[END OF SECTION]

SECTION F – DELIVERIES AND PERFORMANCE

F.1 LISTING OF CLAUSES INCORPORATED BY REFERENCE

Clause(s) at the beginning of this Section are incorporated by reference, with the same force and effect as if they were given in full text. Clauses incorporated by reference which require a fill-in by the Government include the text of the affected paragraph(s) only. This does not limit the clause to the affected paragraph(s). The Contractor is responsible for understanding and complying with the entire clause.

NOTICE: The following contract clauses pertinent to this section are hereby incorporated by reference:

I. FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1)

<u>CLAUSE NUMBER</u>	<u>DATE</u>	<u>TITLE</u>
52.242-15	AUG 1989	STOP-WORK ORDER (<i>Applicable to fixed-price only</i>); ALTERNATE 1 (APR 1984) (<i>Applicable to cost-reimbursable only</i>)
52.242-17	APR 1984	GOVERNMENT DELAY OF WORK
52.247-34	NOV 1991	F.O.B. DESTINATION

II. NASA FAR SUPPLEMENT (48 CFR CHAPTER 18) PROVISIONS

<u>CLAUSE NUMBER</u>	<u>DATE</u>	<u>TITLE</u>
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NONE INCORPORATED BY REFERENCE

(End of Clauses Incorporated By Reference)

F.2 BILLS OF LADING (NFS 1852.247-73) (JUN 2002)

The purpose of this clause is to define when a commercial bill lading or a government bill of lading is to be used when shipment of deliverable items under this contract are Free On Board (F.O.B) Origin. Unless otherwise specified in the Task Order and authorized in advance by the Contracting Officer, deliveries under this contract shall be made F.O.B Destination

- (a) Commercial Bills of Lading. All domestic shipments shall be made via commercial bills of lading (CBLs). The Contractor shall prepay domestic transportation charges.

The Government shall reimburse the Contractor for these charges if they are added to the invoice as a separate line item supported by the paid freight receipts. If paid receipts in support of the invoice are not obtainable, a statement as described below must be completed, signed by an authorized company representative, and attached to the invoice.

“I certify that the shipments identified below have been made, transportation charges have been paid by (company name), and paid freight or comparable receipts are not obtainable”.

Contract Number: **NNJ13HA01C**

Destination:

(b) Government Bills of Lading.

(1) International (export) and domestic overseas shipments of items deliverable under this contract shall be made by Government Bills of Lading (GBLs). As used in this clause, “domestic overseas” means non-continental United States, i.e. Hawaii, Commonwealth of Puerto Rico, and possessions of the United States.

(2) At least 15 days before shipment, the Contractor shall request in writing GBLs from:

JSC Transportation Officer
Building 420
NASA Johnson Space Center
2101 NASA Parkway
Houston, TX 77058-3696

If time is limited, requests may be by telephone:

Requests for GBLs shall include the following information:

- (i) Item identification/ description
- (ii) Origin and destination
- (iii) Individual and total weights
- (iv) Dimensional Weight
- (v) Dimensions and total cubic footage
- (vi) Total number of pieces
- (vii) Total dollar value
- (viii) Other pertinent data

(End of clause)

F.3 FLIGHT ITEM (JSC 52.247-95) (SEP 1989)

Block 16 of each DD Form 250 prepared for hardware or equipment to be shipped under this contract must be annotated as follows in ¼-inch letters or larger by hand printing or rubber stamp:

“THIS IS A FLIGHT ITEM” or “THIS IS MISSION ESSENTIAL GROUND SUPPORT EQUIPMENT”, as applicable.

(End of clause)

F.4 PLACE OF PERFORMANCE

The place of performance for the work called for hereunder will be the NASA/JSC/2101 NASA Parkway Houston, TX 77058 and other locations where the requirements are specified by the Task Orders.

(End of clause)

F.5 COMPLETION OF WORK

The base period of performance of this contract shall be **from May 1, 2013 through April 30, 2018**. All work required under this contract, including submission of all reports, shall be completed on or before **April 30, 2018**. Task Orders placed prior to the expiration date of this contract shall remain in full force and effect until deliveries have been completed and payment has been made.

(End of clause)

F.6 SHIPPING INSTRUCTIONS

- (a) All documentation and hardware to be shipped to JSC shall be shipped as identified below:

Parcel Post Shipments and Freight Shipments

Ship to: Transportation Officer,
Building 420
NASA Johnson Space Center
2101 NASA Parkway
Houston, TX 77058-3696

Mark for: Contracting Officer Representative
Mark With: Contract Number: **NNJ13HA01C**
For reissue to: Jefferson Dutton
EA2
Bldg.1 Rm. 715E

- (b) Unless otherwise authorized in advance by the Contracting Officer, deliveries under this contract shall be made between the hours of **7:30 a.m. and 3:30 p.m.**, Monday through Friday, excluding Federal holidays.

Hardware may be required to be shipped to locations other than those identified above in the performance of this contract; the “ship to; mark for; for reissue to” information shall be modified as necessary to annotate the appropriate information for each shipment.

(End of clause)

F.7 PHASE-IN, PHASE-OUT AND CLOSE-OUT

(a) Contractor Phase-In

- (1) The services provided by this contract are vital to the Government’s overall effort. Therefore, continuity of these services must be maintained at a consistently high level without disruption. The Contractor is expected to meet full performance requirements upon contract start through the life of the contract.
- (2) The Phase-In period shall not exceed **60 calendar days** prior to the start date of the base contract period. The Contractor shall accomplish Phase-In in accordance with the Contract Phase-In Plan, Attachment J-10.
- (3) Once the 60 calendar day phase-in period is complete, the Contractor shall assume full responsibility for the effort covered by the SOW and as issued through Task Orders.
- (4) During phase-in, the Contractor (at a minimum) shall:
 - (i) Participate in meetings with the predecessor Contractor(s) to identify and discuss problems or areas requiring attention during the phase-in period; and
 - (ii) Perform all activities described in the Contractor’s phase-in plan submitted with its proposal, and all activities necessary, to ensure effective transfer of all effort from the predecessor Contractor(s) and readiness to assume full contract performance. As a minimum, phase-in must include the following: all personnel must be trained and must meet contract requirements (e.g., certifications, permits); all Installation Accountable/Government Furnished Property must be inventoried; qualified staff must be available and ready to assume performance

(and must have obtained security clearances (if required) and been badged by JSC).

- (5) The total firm fixed price of all Phase-In activities shall not exceed the price set forth in clause B.3 - Contract Phase-In (Firm Fixed Price). Any costs incurred in excess of this amount shall be unallowable under this or any other government contract.

(b) Contractor Phase-Out/Close-out

- (1) Prior to contract completion, a successor Contractor(s) may be selected to perform the work requirements covered by the SOW. The Contractor shall conduct an orderly phase-out of contract activities prior to completion of this contract and assumption of responsibility for the effort described in the SOW by a successor Contractor(s). The Contractor shall remain responsible for the effort covered by the SOW during phase-out activities.
- (2) Upon written notice by the Contracting Officer, the Contractor shall conduct phase-out activities for up to **90 calendar days** prior to the contract completion date, including:
- (i) Support periodic meetings with the successor Contractor(s) to identify and discuss problems or areas requiring attention during the phase-out period; and
- (ii) Negotiate in good faith, a plan with the successor Contractor(s) to determine the nature and extent of phase-in and phase-out activities required. The plan shall include effective transfer of all effort to the successor Contractor(s); training of personnel; and any other agreements or steps necessary to ensure a smooth transition between the contracts. The plan shall be subject to the Contracting Officer's approval.
- (3) Close-Out activities shall be accomplished in accordance with FAR 52.237-3 "Continuity of Services." The Contractor shall accomplish Close-Out in accordance with DRD MGMT-14, Contract Closeout Plan.

(End of clause)

F.8 OPTION TO EXTEND

The Government may require the contractor to continue to perform services under this contract. The contracting officer may exercise this option by issuance of a unilateral contract modification 30 days or more before the completion date set forth in Section F. Should the option be exercised, the resultant contract will include all terms and conditions of the basic contract as it exists immediately prior to the exercise of the option, except for the following changes:

Option 1:

1. B.6 (a) entitled “MINIMUM/MAXIMUM IDIQ POTENTIAL CONTRACT VALUE” will be modified to reflect the addition of \$437,500,000 to the Not To Exceed (NTE) value. This increases the NTE value to \$1,456,300,000.

2. F.5, entitled “COMPLETION OF WORK,” will be modified to state:

“All work required under this contract, including submission of all reports, shall be completed on or before **April 30, 2020**”

3. I.5, entitled “ORDERING” will be modified to state:

“Such orders may be issued from **May 1, 2013** through **April 30, 2020.**”

Option 2:

1. B.6 (a) entitled “MINIMUM/MAXIMUM IDIQ POTENTIAL CONTRACT” will be modified to reflect the addition of \$478,400,000 to the NTE value. This increases the NTE value to \$1,934,700,000.

2. F.5, entitled “COMPLETION OF WORK,” will be modified to state:

“All work required under this contract, including submission of all reports, shall be completed on or before **April 30, 2022**”

3. I.5, entitled “ORDERING” will be modified to state:

“Such orders may be issued from **May 1, 2013** through **April 30, 2022.**”

(End of Clause)

[END OF SECTION]

SECTION G – CONTRACT ADMINISTRATION DATA

G.1 LISTING OF CLAUSES INCORPORATED BY REFERENCE

Clause(s) at the beginning of this Section are incorporated by reference, with the same force and effect as if they were given in full text. Clauses incorporated by reference which require a fill-in by the Government include the text of the affected paragraph(s) only. This does not limit the clause to the affected paragraph(s). The Contractor is responsible for understanding and complying with the entire clause.

The following contract clauses pertinent to this section are hereby incorporated by reference:

I. FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1)

<u>CLAUSE NUMBER</u>	<u>DATE</u>	<u>TITLE</u>
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NONE

II. NASA FAR SUPPLEMENT (48 CFR CHAPTER 18) PROVISIONS

<u>CLAUSE NUMBER</u>	<u>DATE</u>	<u>TITLE</u>
1852.223-71	DEC 1988	FREQUENCY AUTHORIZATION
1852.227-70	MAY 2002	NEW TECHNOLOGY
1852.227-71	APR 1984	REQUESTS FOR WAIVER OF RIGHTS TO INVENTIONS
1852.227-86	DEC 1987	COMMERCIAL COMPUTER SOFTWARE - LICENSING
1852.242-71	DEC 1988	TRAVEL OUTSIDE OF THE UNITED STATES
1852.242-73	NOV 2004	NASA CONTRACTOR FINANCIAL MANAGEMENT REPORTING

(End of Clauses Incorporated by Reference)

G.2 AWARD FEE FOR SERVICE CONTRACTS (NFS 1852.216-76) (APR 2012)
(Applicable to cost-reimbursement only)

(a) The contractor can earn award fee from a minimum of zero dollars to the maximum stated in NASA FAR Supplement clause 1852.216-85, "Estimated Cost and Award Fee" in this contract.

(b) Beginning 6* months after the effective date of this contract, the Government shall evaluate the Contractor's performance every 6* months to determine the amount of award fee earned by the contractor during the period. The Contractor may submit a self-evaluation of performance for each evaluation period under consideration. These self-evaluations will be considered by the Government in its evaluation. The Government's Fee Determination Official (FDO) will determine the award fee amounts based on the Contractor's performance in accordance with [identify performance evaluation plan]. The plan may be revised unilaterally by the Government prior to the beginning of any rating period to redirect emphasis.

(c) The Government will advise the Contractor in writing of the evaluation results. The NASA Shared Services Center (NSSC) will make payment based on issuance of unilateral modification by Contracting Officer.

(d) The Contracting Officer may direct the withholding of earned award fee payments until a reserve is set aside in an amount that the Contracting Officer considers necessary to protect the Government's interest relative to an orderly and timely closeout of the contract. This reserve shall not exceed 15 percent of the contract's total potential award fee or \$100,000, whichever is less.

(e) The amount of award fee which can be awarded in each evaluation period is limited to the amounts set forth at Section J-11 Award Fee Plan. Award fee which is not earned in an evaluation period cannot be reallocated to future evaluation periods.

(f) (1) Provisional award fee payments will be made under this contract pending the determination of the amount of fee earned for an evaluation period. If applicable, provisional award fee payments will be made to the Contractor on a monthly payments basis. The total amount of award fee available in an evaluation period that will be provisionally paid is the lesser of 80 percent or the prior period's evaluation score.

(2) Provisional award fee payments will be superseded by the final award fee evaluation for that period. If provisional payments exceed the final evaluation score, the Contractor will either credit the next payment voucher for the amount of such overpayment or refund the difference to the Government, as directed by the Contracting Officer.

(3) If the Contracting Officer determines that the Contractor will not achieve a level of performance commensurate with the provisional rate, payment of provisional award fee will be discontinued or reduced in such amounts as the Contracting Officer deems appropriate. The Contracting Officer will notify the Contractor in writing if it is determined that such discontinuance or reduction is appropriate.

(4) Provisional award fee payments will be made prior to the first award fee determination by the Government.

(g) Award fee determinations are unilateral decisions made solely at the discretion of the Government.

(End of clause)

G.3 SUBMISSION OF INVOICES

Invoices for work associated with phase-in shall be submitted to:

NASA Lyndon B. Johnson Space Center
Attn: Mail Code BH, JETS Contracting Officer
2101 NASA Parkway
Houston, TX 77058-3696

(End of clause)

G.4 SUBMISSION OF VOUCHERS FOR PAYMENT. (MAY 2014) (JSC Procurement Instruction) 52.216-92

(a) Except for classified vouchers, the Contractor shall submit interim and final cost vouchers electronically using the Department of Defense (DoD) Wide Area Work Flow (WAWF) system. Vouchers will be reviewed by the Defense Contract Audit Agency based upon a risk-based review process.

(1) To access the DoD WAWF system, the Contractor shall be required to have a designated electronic business point of contact in the System for Award Management at <https://www.acquisition.gov> and be registered to use the DoD WAWF at <https://wawf.eb.mil> following the step-by-step procedures for self-registration available at this web site.

(2) NASA voucher payment information can be obtained at the NASA Shared Services Center (NSSC) Vendor Payment information web site at:
<https://www.nssc.nasa.gov/vendorpayment>

For technical WAWF help, contact the WAWF helpdesk at 1-866-618-5988. For additional questions, contact the NSSC Customer Contact Center at 1-877-677-2123.

(3) The Contractor shall ensure that the payment request includes appropriate contract line item descriptions of the work performed or supplies delivered, unit price/cost per unit, fee (if applicable), and all required back-up documentation to support each payment request.

(b) Vouchers for payment of fee resulting from contract performance or provisional fee (if authorized under this contract) shall be prepared using a Standard Form (SF) 1034 and submitted electronically to the following address for payment:

E-mail address: NSSC-AccountsPayable@nasa.gov

Mailing address: NSSC - FMD Accounts Payable
Bldg. 1111, C Road

Stennis Space Center, MS 39529
Fax Number: 1-866-209-5415

(c) For both cost and fee voucher submissions, a concurrent copy of the voucher shall be provided electronically to the NASA Contracting Officer outside of WAWF. The Contracting Officer may designate other recipients as required.

(d) The NSSC is the designated billing office for cost and fee vouchers for purpose of the Prompt Payment clause of this contract.

(e) In the event that amounts are withheld from payment in accordance with terms of this contract, a separate voucher for the amount withheld will be required before payment for that amount may be made.

(End of clause)

G.5 DESIGNATION OF NEW TECHNOLOGY REPRESENTATIVE AND PATENT REPRESENTATIVE (NFS 1852.227-72) (JUL 1997)

(a) For purposes of administration of the clause of this contract entitled "New Technology" or "Patent Rights - Retention by the Contractor (Short Form)," whichever is included, the following named representatives are hereby designated by the Contracting Officer to administer such clause:

NEW TECHNOLOGY:
NASA Johnson Space Center
AD2/Technology Transfer
2101 NASA Parkway
Houston, TX 77058-3696

PATENT REPRESENTATIVE:
NASA Johnson Space Center
AL/Patent Representative
2101 NASA Parkway
Houston, TX 77058-3696

(b) Reports of reportable items, and disclosure of subject inventions, interim reports, final reports, utilization reports, and other reports required by the clause, as well as any correspondence with respect to such matters, should be directed to the New Technology Representative unless transmitted in response to correspondence or request from the Patent Representative. Inquires or requests regarding disposition of rights, election of rights, or related matters should be directed to the Patent Representative. This clause shall be included in any subcontract hereunder requiring a "New Technology" clause or "Patent Rights - Retention by the Contractor (Short Form)" clause, unless otherwise authorized or directed by the Contracting Officer. The respective responsibilities and authorities of the above-named representatives are set forth in 1827.305-370 of the NASA FAR Supplement.

(End of clause)

G.6 TECHNICAL DIRECTION (NFS 1852.242-70) (SEP 1993)

(a) Performance of the work under this contract is subject to the written technical direction of the Contracting Officer Technical Representative (COTR), who shall be specifically appointed by the Contracting Officer in writing in accordance with NASA FAR Supplement 1842.270. "Technical direction" means a directive to the Contractor that approves approaches, solutions, designs, or refinements; fills in details or otherwise completes the general description of work or documentation items; shifts emphasis among work areas or tasks; or furnishes similar instruction to the Contractor. Technical direction includes requiring studies and pursuit of certain lines of inquiry regarding matters within the general tasks and requirements in Section C of this contract.

(b) The COTR does not have the authority to, and shall not, issue any instruction purporting to be technical direction that -

- (1) Constitutes an assignment of additional work outside the statement of work;
- (2) Constitutes a change as defined in the changes clause;
- (3) Constitutes a basis for any increase or decrease in the total estimated contract cost, the fixed fee (if any), or the time required for contract performance;
- (4) Changes any of the expressed terms, conditions, or specifications of the contract; or
- (5) Interferes with the contractor's rights to perform the terms and conditions of the contract.

(c) All technical direction shall be issued in writing by the COTR.

(d) The Contractor shall proceed promptly with the performance of technical direction duly issued by the COTR in the manner prescribed by this clause and within the COTR's authority. If, in the Contractor's opinion, any instruction or direction by the COTR falls within any of the categories defined in paragraph (b) of this clause, the Contractor shall not proceed but shall notify the Contracting Officer in writing within **5 working days** after receiving it and shall request the Contracting Officer to take action as described in this clause. Upon receiving this notification, the Contracting Officer shall either issue an appropriate contract modification within a reasonable time or advise the Contractor in writing within **30 calendar days** that the instruction or direction is -

- (1) Rescinded in its entirety; or
- (2) Within the requirements of the contract and does not constitute a change under the changes clause of the contract, and that the Contractor should proceed promptly with its performance.

(e) A failure of the contractor and contracting officer to agree that the instruction or

direction is both within the requirements of the contract and does not constitute a change under the changes clause, or a failure to agree upon the contract action to be taken with respect to the instruction or direction, shall be subject to the Disputes clause of this contract.

(f) Any action(s) taken by the contractor in response to any direction given by any person other than the Contracting Officer or the COTR shall be at the Contractor's risk.

(End of clause)

G.7 CONTRACTOR REQUESTS FOR GOVERNMENT-PROVIDED EQUIPMENT (DEVIATION) (NFS 1852.245-70) (JAN 2011); (ALTERNATE 1) (JAN 2011 (DEVIATION)

(a) The Contractor shall provide all property required for the performance of this contract. The Contractor shall not acquire or construct items of property to which the Government will have title under the provisions of this contract without the Contracting Officer's written authorization. Property which will be acquired as a deliverable end item as material or as a component for incorporation into a deliverable end item is exempt from this requirement. Property approved as part of the contract award or specifically required within the statement of work is exempt from this requirement.

(b)

(1) In the event the Contractor is unable to provide the property necessary for performance, and the Contractor requests provision of property by the Government, the Contractor's request shall—

- (i) Justify the need for the property;
- (ii) Provide the reasons why contractor-owned property cannot be used;
- (iii) Describe the property in sufficient detail to enable the Government to screen its inventories for available property or to otherwise acquire property, including applicable manufacturer, model, part, catalog, National Stock Number or other pertinent identifiers;
- (iv) Combine requests for quantities of items with identical descriptions and estimated values when the estimated values do not exceed \$100,000 per unit; and
- (v) Include only a single unit when the acquisition or construction value equals or exceeds \$100,000.

(2) Contracting Officer authorization is required for items the Contractor intends to manufacture as well as those it intends to purchase.

(3) The Contractor shall submit requests to the Contracting Officer no less than 30 days in advance of the date the Contractor would, should it receive authorization, acquire or begin fabrication of the item.

(c) The Contractor shall maintain copies of Contracting Officer authorizations, appropriately cross-referenced to the individual property record, within its property management system.

(d) Property furnished from Government excess sources is provided as-is, where-is. The Government makes no warranty regarding its applicability for performance of the contract or its ability to operate. Failure of property obtained from Government excess sources under this clause is insufficient reason for submission of requests for equitable adjustments discussed in the clause at FAR 52.245-1, Government Property, as incorporated in this contract.

(e) In the event the Contracting Officer issues written authorization to provide property, the Contractor shall screen Government sources to determine the availability of property from Government inventory or excess property.

(1) The Contractor shall review NASA inventories and other authorized Federal excess sources for availability of items that meet the performance requirements of the requested property.

(i) If the Contractor determines that a suitable item is available from NASA supply inventory, it shall request the item using applicable Center procedures.

(ii) If the Contractor determines that an item within NASA or Federal excess is suitable, it shall contact the Center Industrial Property Officer to arrange for transfer of the item from the identified source to the Contractor.

(2) If the Contractor determines that the required property is not available from inventory or excess sources, the Contractor shall note the acquisition file with a list of sources reviewed and the findings regarding the lack of availability. If the required property is available, but unsuitable for use, the contractor shall document the rationale for rejection of available property. The Contractor shall retain appropriate cross-referenced documentary evidence of the outcome of those screening efforts as part of its property records system.

(End of clause)

**G.8 INSTALLATION-ACCOUNTABLE GOVERNMENT PROPERTY (1852.245-71)
(JAN 2011) (ALT 1) (JAN 2011)**

(a) The Government property described in paragraph (c) of this clause may be made available to the Contractor on a no-charge basis for use in performance of this contract. This property shall be utilized only within the physical confines of the NASA installation that provided the property unless authorized by the Contracting Officer under (b)(1)(iv). Under this clause, the Government retains accountability for, and title to, the property, and the Contractor shall comply with the following:

NASA Procedural Requirements (NPR) 4100.1, NASA Materials Inventory Management Manual;

NASA Procedural Requirements (NPR) 4200.1, NASA Equipment Management Procedural Requirements;

NASA Procedural Requirement (NPR) 4300.1, NASA Personal Property Disposal Procedural Requirements;

NASA Program Directive (NPD) 4300.4, Use of Space Shuttle and Aerospace Vehicle Materials as Mementos;

NASA Procedural Requirements (NPR) 4310.1, Identification and Disposition of NASA Artifacts

NASA Procedural Requirements (NPR) 4200.2, NASA Equipment Management Manual for Property Custodians

JSC Procedural Requirement (JPR) 1281.7B, Control of Customer Property

JSC Procedural Requirement (JPR) 1281.15, Identification, Handling, Storage, Packaging, Preservation, and Delivery

JSC Work Instruction (JWI) 4200.1, Management of Controlled Equipment

JSC Work Instruction (JWI) 4210.2, JSC Instructions for Control of Program Stock (formally JSC 26549)

JSC Work Instruction (JWI) 4300.1, JSC Instructions for Excess and Disposal of Government Property

JSC Work Instruction (JWI) 6050.1A, Procedures for Processing Shipments from JSC

Property not recorded in NASA property systems must be managed in accordance with the requirements of the clause at FAR 52.245-1, as incorporated in this contract. The Contractor shall establish and adhere to a system of written procedures to assure continued, effective management control and compliance with these user responsibilities. In accordance with FAR 52.245-1(h)(1) the contractor shall be liable for property lost, damaged, destroyed or stolen by the contractor or their employees when determined responsible by a NASA Property Survey Board, in accordance with the NASA guidance in this clause.

(b)(1) The official accountable recordkeeping, financial control, and reporting of the property subject to this clause shall be retained by the Government and accomplished within NASA management information systems prescribed by the installation Supply and Equipment Management Officer (SEMO) and Financial Management Officer. If this contract provides for the Contractor to acquire property, title to which will vest in the Government, the following additional procedures apply:

- (i) The Contractor shall not utilize the installation's central receiving facility for receipt of contractor-acquired property. However, the Contractor shall provide listings suitable for establishing accountable records of all such

property received, on a monthly basis, to the SEMO.

- (ii) The Contractor shall furnish a copy of each purchase order, prior to delivery by the vendor, to the installation central receiving area.
- (iii) The Contractor shall establish a record for Government titled property as required by FAR 52.245-1, as incorporated in this contract, and shall maintain that record until accountability is accepted by the Government.
- (iv) Contractor use of Government property at an off-site location and off-site subcontractor use requires advance approval of the Contracting Officer and notification of the Industrial Property Officer. The property shall be considered Government furnished and the Contractor shall assume accountability and financial reporting responsibility. The Contractor shall establish records and property control procedures and maintain the property in accordance with the requirements of FAR 52.245-1, Government Property (as incorporated in this contract), until its return to the installation. NASA Procedural Requirements related to property loans shall not apply to offsite use of property by contractors.

(2) After transfer of accountability to the Government, the Contractor shall continue to maintain such internal records as are necessary to execute the user responsibilities identified in paragraph (a) of this clause and document the acquisition, billing, and disposition of the property. These records and supporting documentation shall be made available, upon request, to the SEMO and any other authorized representatives of the Contracting Officer.

(c) The following property and services are provided if checked:

- ☒ (1) Office space, work area space, and utilities. Government telephones and computers are available for official purposes only.
- ☒ (2) Office furniture.
- ☒ (3) Property listed in J-3 Installation Accountable Government Property.

(i) If the Contractor acquires property, title to which vests in the Government pursuant to other provisions of this contract, this property also shall become accountable to the Government upon its entry into Government records.

(ii) The Contractor shall not bring to the installation for use under this contract any property owned or leased by the Contractor, or other property that the Contractor is accountable for under any other Government contract, without the Contracting Officer's prior written approval.

- ☐ (4) Supplies from stores stock.

- [x] (5) Publications and blank forms stocked by the installation.
- [x] (6) Safety and fire protection for Contractor personnel and facilities.
- [x] (7) Installation service facilities: none
- [x] (8) Medical treatment of a first-aid nature for Contractor personnel injuries or illnesses sustained during on-site duty.
- [x] (9) Cafeteria privileges for Contractor employees during normal operating hours.
- [x] (10) Building maintenance for facilities occupied by Contractor personnel.
- [x] (11) On-site moving and hauling for office moves, movement of large equipment, and delivery of supplies. Moving services may be provided off-site, as approved by the Contracting Officer.

(End of clause)

G.9 FINANCIAL REPORTING OF NASA PROPERTY IN THE CUSTODY OF CONTRACTORS (NFS 1852.245-73) (JAN 2011)

(a) The Contractor shall submit annually a NASA Form (NF) 1018, NASA Property in the Custody of Contractors, in accordance this clause, the instructions on the form and NFS subpart 1845.71, and any supplemental instructions for the current reporting period issued by NASA.

(b) (1) Subcontractor use of NF 1018 is not required by this clause; however, the Contractor shall include data on property in the possession of subcontractors in the annual NF 1018.

(2) The Contractor shall mail the original signed NF 1018 directly to the cognizant NASA Center Deputy Chief Financial Officer, Finance, unless the Contractor uses the NF 1018 Electronic Submission System (NESS) for report preparation and submission.

(3) One copy shall be submitted (through the Department of Defense (DOD) Property Administrator if contract administration has been delegated to DOD) to the following address:

NASA/Johnson Space Center
2101 NASA Parkway
Mail code: JB3
Houston, TX 77058-3696

unless the Contractor uses the NF 1018 Electronic Submission System (NESS) for report preparation and submission.

(c)(1) The annual reporting period shall be from October 1 of each year through September 30 of the following year. The report shall be submitted in time to be received by October 15. The information contained in these reports is entered into the NASA accounting system to reflect current asset values for agency financial statement purposes. Therefore, it is essential that required reports be received no later than October 15. Some activity may be estimated for the month of September, if necessary, to ensure the NF 1018 is received when due. However, contractors' procedures must document the process for developing these estimates based on planned activity such as planned purchases or NASA Form 533 (NF 533 Contractor Financial Management Report) cost estimates. It should be supported and documented by historical experience or other corroborating evidence, and be retained in accordance with FAR Subpart 4.7, Contractor Records Retention. Contractors shall validate the reasonableness of the estimates and associated methodology by comparing them to the actual activity once that data is available, and adjust them accordingly. In addition, differences between the estimated cost and actual cost must be adjusted during the next reporting period. Contractors shall have formal policies and procedures, which address the validation of NF 1018 data, including data from subcontractors, and the identification and timely reporting of errors. The objective of this validation is to ensure that information reported is accurate and in compliance with the NASA FAR Supplement. If errors are discovered on NF 1018 after submission, the contractor shall contact the cognizant NASA Center Industrial Property Officer (IPO) within 30 days after discovery of the error to discuss corrective action.

(2) The Contracting Officer may, in NASA's interest, withhold payment until a reserve not exceeding \$25,000 or 5 percent of the amount of the contract, whichever is less, has been set aside, if the Contractor fails to submit annual NF 1018 reports in accordance with NFS subpart 1845.71 and any supplemental instructions for the current reporting period issued by NASA. Such reserve shall be withheld until the Contracting Officer has determined that NASA has received the required reports. The withholding of any amount or the subsequent payment thereof shall not be construed as a waiver of any Government right.

(d) A final report shall be submitted within 30 days after disposition of all property subject to reporting when the contract performance period is complete in accordance with paragraph (b)(1) through (3) of this clause.

(End of clause)

**G.10 IDENTIFICATION AND MARKING OF GOVERNMENT EQUIPMENT (NFS)
(1852.245-74) (JAN 2011)**

(a) The Contractor shall identify all equipment to be delivered to the Government using NASA Technical Handbook (NASA-HDBK) 6003, Application of Data Matrix Identification Symbols to Aerospace Parts Using Direct Part Marking Methods/Techniques, and NASA Standard (NASA-STD) 6002, Applying Data Matrix Identification Symbols on Aerospace Parts or through the use of commercial marking techniques that: (1) are

sufficiently durable to remain intact through the typical lifespan of the property: and, (2) contain the data and data format required by the standards. This requirement includes deliverable equipment listed in the schedule and other equipment when no longer required for contract performance and NASA directs physical transfer to NASA or a third party. The Contractor shall identify property in both machine and human readable form unless the use of a machine readable-only format is approved by the NASA Industrial Property Officer.

(b) Equipment shall be marked in a location that will be human readable, without disassembly or movement of the equipment, when the items are placed in service unless such placement would have a deleterious effect on safety or on the item's operation.

(c) Concurrent with equipment delivery or transfer, the Contractor shall provide the following data in an electronic spreadsheet format:

- (1) Item Description.
- (2) Unique Identification Number (License Tag).
- (3) Unit Price.
- (4) An explanation of the data used to make the unique identification number.

(d) For equipment no longer needed for contract performance and physically transferred under paragraph (a) of this clause, the following additional data is required:

- (1) Date originally placed in service.
- (2) Item condition.

(e) The data required in paragraphs (c) and (d) of this clause shall be delivered to the NASA center receiving activity listed below:

NASA Johnson Space Center
Central Receiving, Bldg. 420
2101 NASA Parkway
Houston, TX 77058-3696

The contractor shall include the substance of this clause, including this paragraph (f), in all subcontracts that require delivery of equipment.

(End of Clause)

G.11 PROPERTY MANAGEMENT CHANGES (NFS 1852.245-75) (JAN 2011)

(a) The Contractor shall submit any changes to standards and practices used for management and control of Government property under this contract to the assigned property administrator prior to making the change whenever the change —

- (1) Employs a standard that allows increase in thresholds or changes the timing

- for reporting loss, damage, or destruction of property;
- (2) Alters physical inventory timing or procedures;
- (3) Alters recordkeeping practices;
- (4) Alters practices for recording the transport or delivery of Government property; or
- (5) Alters practices for disposition of Government property.

(End of clause)

G.12 LIST OF GOVERNMENT PROPERTY FURNISHED PURSUANT TO FAR 52.245-1(1852.245-76) (JAN 2011)

For performance of work under this contract, the Government will make available Government property identified below or in Attachment J-4 Government Furnished Property of this contract on a no charge-for-use basis pursuant to the clause at FAR 52.245-1, Government Property, as incorporated in this contract. The Contractor shall use this property in the performance of this contract at their near-JSC off-site location and at other location(s) as may be approved by the Contracting Officer. Under FAR 52.245-1, the Contractor is accountable for the identified property.

(End of clause)

G.13 PHYSICAL INVENTORY OF CAPITAL PERSONAL PROPERTY (NFS 1852.245-78) (JAN 2011)

a) In addition to physical inventory requirements under the clause at FAR 52.245-1, Government Property, as incorporated in this contract, the Contractor shall conduct annual physical inventories for individual property items with an acquisition cost exceeding \$100,000.

(1) The Contractor shall inventory—

- (i) Items of property furnished by the Government;
- (ii) Items acquired by the Contractor and titled to the Government under the clause at FAR 52.245-1;
- (iii) Items constructed by the Contractor and not included in the deliverable, but titled to the Government under the clause at FAR 52.245-1; and
- (iv) Complete but undelivered deliverables.

(2) The Contractor shall use the physical inventory results to validate the property record data, specifically location and use status, and to prepare summary reports of inventory as described in paragraph (c) of this clause.

(b) Unless specifically authorized in writing by the Property Administrator, the inventory shall be performed and posted by individuals other than those assigned custody of the items, responsibility for maintenance, or responsibility for posting to the property record. The Contractor may request a waiver from this separation of duties requirement from the Property Administrator, when all of the conditions in either (1) or (2) of this paragraph

are met.

(1) The Contractor utilizes an electronic system for property identification, such as a laser bar-code reader or radio frequency identification reader, and

(i) The programs or software preclude manual data entry of inventory identification data by the individual performing the inventory; and

(ii) The inventory and property management systems contain sufficient management controls to prevent tampering and assure proper posting of collected inventory data.

(2) The Contractor has limited quantities of property, limited personnel, or limited property systems; and the Contractor provides written confirmation that the Government property exists in the recorded condition and location;

(3) The Contractor shall submit the request to the cognizant property administrator and obtain approval from the property administrator prior to implementation of the practice.

(c) The Contractor shall report the results of the physical inventory to the property administrator within 10 calendar days of completion of the physical inventory. The report shall—

(1) Provide a summary showing number and value of items inventoried; and

(2) Include additional supporting reports of—

(i) Loss in accordance with the clause at 52.245–1, Government Property;

(ii) Idle property available for reuse or disposition; and

(iii) A summary of adjustments made to location, condition, status, or user as a result of the physical inventory reconciliation.

(d) The Contractor shall retain auditable physical inventory records, including records supporting transactions associated with inventory reconciliation. All records shall be subject to Government review and/or audit.

(End of clause)

G.14 SECURITY/BADGING REQUIREMENTS FOR FOREIGN NATIONAL VISTORS AND EMPLOYEES OF FOREIGN CONTRACTORS (JSC 52.204-91) (JAN 2006) Reference NASA Procedural Requirement NPR 1600.1, Personal Identity Verification (PIV) Policy and Procedures

(a) An employee of a domestic Johnson Space Center (JSC) contractor or its subcontractor who is not a U.S. citizen (foreign national) may not be admitted to the JSC site for purposes of performing work without special arrangements. In addition, all employees or representatives of a foreign JSC contractor/subcontractor may not be admitted to the JSC site without special arrangements. For employees as described above, advance notice must be given to the Security Office of the host installation [JSC or White Sands Test Facility (WSTF)] at least three weeks prior to the scheduled need for access to the site so that instructions on obtaining access may be provided. Contractors should be aware that approval for access to the site and issuance of a badge may take much longer than three weeks and sufficient lead time must be allowed to accommodate the approval process.

(b) All visit/badge requests for persons described in (a) above must be entered in the NASA Foreign National Management System (NFMMS) for acceptance, review, concurrence, and approval purposes. When an authorized company official requests a JSC or WSTF badge for site access, he/she is certifying that steps have been taken to ensure that its contractor or subcontractor employees, visitors, or representatives will not be given access to export-controlled or classified information for which they are not authorized. These individuals shall serve as the contractor's representative(s) in certifying that all visit/badge request forms are processed in accordance with JSC and WSTF security and export control procedures. No foreign national, representative, or resident alien contractor/subcontractor employee shall be granted access into JSC or WSTF until approved and processed through the NFMMS. Unescorted access will not be granted unless a favorable National Agency Check (NAC) has been completed by the JSC Security Office, and an approved NASA Foreign National Visitor Security/Technology Control Plan (STTCP), (previously called the Access Control Plan) has been submitted and approved.

(c) The contractor agrees that it will not employ for the performance of work on-site at JSC or WSTF any individuals who are not legally authorized to work in the United States. If the JSC or WSTF Industrial Security Specialist or the contracting officer has reason to believe that any employee of the contractor may not be legally authorized to work in the United States and/or on the contract, the contractor may be required to furnish copies of Form I-9 (Employment Eligibility Verification), U.S. Department of Labor Application for Alien Employment Certification, and any other type of employment authorization document.

The contractor agrees to provide the information requested by JSC or WSTF Security Office in order to comply with NASA policy directives and guidelines related to foreign visits to NASA facilities so that (1) the visitor/employee/ representative may be allowed access to JSC or other NASA centers for performance of this contract, (2) required investigations can be conducted, and (3) required annual or revalidation reports can be submitted to NASA Headquarters. All requested information must be submitted in a timely manner in accordance with instructions provided by JSC or any other center to be visited.

(End of clause)

G.15 JSC HAZARDOUS MATERIALS USE (JSC 52.223-92) (MAY 2009)

(a) This clause is JSC-unique, and the requirements are in addition to any U.S. Environmental Protection Agency, U.S. Occupational Safety and Health Administration, or other state or Federal regulation or statute. Therefore, the following requirements do NOT supersede any statutory or regulatory requirements for any entity subject to this clause.

(b) "Hazardous materials," for the purposes of this clause, consist of the following:

(1) Those materials defined as "highly hazardous chemicals" in Occupational Safety and Health Administration Process Safety Management Regulation, 29 Code of Federal Regulation 1910.119, without regard for quantity.

(2) Those "extremely hazardous substances" subject to the emergency planning requirements in the Environmental Protection Agency Emergency Planning and Community Right-to-Know Regulation, 40 Code of Federal Regulation 355, Part 355, without regard for quantity.

(3) Those "hazardous substances" subject to the release notification requirements under Environmental Protection Agency's Emergency Planning and Community Right-to-Know Regulation, 40 Code of Federal Regulation 302.4, without regard for quantity.

(4) Any radioisotope material or device that produces ionizing radiation.

(5) Any Class II, III, or IV laser as defined by the American National Standards Institute No. Z136.1 (1986)

(6) Any explosive or any pyrotechnics

(7) Any pesticide.

(c) The contractor shall update the JSC inventory listing the identity and quantity of hazardous materials stored or used onsite at JSC for the performance of the contract.

(d) The contractor shall ensure that the proper training of its employees in the use and inherent hazards of these materials is accomplished prior to use.

(e) The contractor shall notify the JSC Clinical Services Branch (SD3) prior to any initial use or different application of these materials.

(f) The contractor shall use all hazardous materials properly and take all necessary precautions to ensure no harm is done to humans or the environment.

(g) The contractor shall insert the substance of this clause, including this Paragraph F with appropriate changes of designations of the parties, in subcontracts under which hazardous materials will be utilized, or may reasonably be expected to be utilized, onsite at JSC.

(h) In the event the contractor fails or refuses to comply with any aspect of this clause, such failure or refusal may be considered a material breach of this contract.

(End of clause)

G.16 IDENTIFICATION OF EMPLOYEES (JSC 52.242-92) (OCT 2006)

At all times while on Government property, the contractor, subcontractors, their employees, and agents shall wear badges which will be issued by the NASA Badging & Visitor Control Office, located in Building 110 at the Johnson Space Center (JSC), or at the Main Gate at the White Sands Test Facility (WSTF). JSC employee credentials and visitor badges will be issued only between the hours of 6:00 a.m. to 5:30 p.m., Monday through Friday. WSTF employee badges will be issued only between the hours of 8 a.m. to 2 p.m., Monday through Friday. WSTF visitor badges will be issued on a 7-day-a-week, 24-hour-a-day basis. Resident aliens and foreign nationals/representatives shall be issued green foreign national badges.

Each individual who wears a badge shall be required to sign personally for the badge. The contractor shall be held accountable for issued badges and all other related items and must assure that they are returned to the NASA Badging & Visitor Control Offices upon completion of work under the contract in accordance with Security Management Directive (SMD) 500-15, "Security Termination Procedures." Failure to comply with the NASA contractor termination procedures upon completion of the work (e.g., return of badges, decals, keys, Controlled Access Area cards, clearance terminations, JSC Public Key Infrastructure (PKI)/special program deletions, etc.) may result in final payment being delayed.

(End of clause)

G.17 HUMAN RESEARCH POLICY AND PROCEDURES (JSC 52.242-93) (SEP 2000)

The contractor shall follow the human research policy and procedures stated in the current version (as of the effective date of the contract) of NASA Policy Directive 7100.8 - "Protection of Human Research Subjects," and shall furnish to the contracting officer, upon request, copies of protocols and contractor documents showing contractor Human Research Committee approval of such protocols.

(End of clause)

[END OF SECTION]

SECTION H – SPECIAL CONTRACT REQUIREMENTS

H.1 LISTING OF CLAUSES INCORPORATED BY REFERENCE

Clause(s) at the beginning of this Section are incorporated by reference, with the same force and effect as if they were given in full text. Clauses incorporated by reference which require a fill-in by the Government include the text of the affected paragraph(s) only. This does not limit the clause to the affected paragraph(s). The Contractor is responsible for understanding and complying with the entire clause.

The following contract clauses pertinent to this section are hereby incorporated by reference:

I. FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1)

<u>CLAUSE NUMBER</u>	<u>DATE</u>	<u>TITLE</u>
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NONE

II. NASA FAR SUPPLEMENT (48 CFR CHAPTER 18) PROVISIONS

<u>CLAUSE NUMBER</u>	<u>DATE</u>	<u>TITLE</u>
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1852.208-81	NOV 2004	RESTRICTIONS ON PRINTING AND DUPLICATING
1852.223-75	FEB 2002	MAJOR BREACH OF SAFETY OR SECURITY (ALTERNATE 1) (FEB 2006)
1852.225-70	FEB 2000	EXPORT LICENSES (ALTERNATE 1) (FEB 2000) INSERT: LYNDON B. JOHNSON SPACE CENTER
1852.235-73	DEC 2006	FINAL SCIENTIFIC AND TECHNICAL REPORTS (ALTERNATE II) (DEC 2005)
1852.244-70	APR 1985	GEOGRAPHIC PARTICIPATION IN THE AEROSPACE PROGRAM
1852.246-70	MAR 1997	MISSION CRITICAL SPACE SYSTEMS PERSONNEL RELIABILITY PROGRAM

(End of Clauses Incorporated by Reference)

H.2 LIMITATION OF FUTURE CONTRACTING (NFS 1852.209-71) (DEC 1988)

(a) The Contracting Officer has determined that this acquisition may give rise to a potential organizational conflict of interest. Accordingly, the attention of prospective offerors is invited to FAR Subpart 9.5 - Organizational Conflicts of Interest.

(b) The nature of this conflict shall be described in accordance with, DRD MGMT-12 Organizational Conflict of Interest Mitigation Plan.

(c) The restrictions upon future contracting are as follows:

(1) If the Contractor, under the terms of this contract, or through the performance of tasks pursuant to this contract, is required to develop specifications or statements of work that are to be incorporated into a solicitation, the Contractor shall be ineligible to perform the work described in that solicitation as a prime or first-tier subcontractor under an ensuing NASA contract. This restriction shall remain in effect for a reasonable time, as agreed to by the Contracting Officer and the Contractor, sufficient to avoid unfair competitive advantage or potential bias (this time shall in no case be less than the duration of the initial production contract). NASA shall not unilaterally require the Contractor to prepare such specifications or statements of work under this contract.

(2) To the extent that the work under this contract requires access to proprietary, business confidential, or financial data of other companies, and as long as these data remain proprietary or confidential, the Contractor shall protect these data from unauthorized use and disclosure and agrees not to use them to compete with those other companies.

(End of clause)

H.3 REPRESENTATIONS, CERTIFICATIONS AND OTHER STATEMENTS OF OFFEROR

The completed provision FAR 52.204-8, annual Representations and Certifications, including any amended representation(s) made at paragraph (b) of the provision; and other representations, certifications and other statements contained as set forth in the Contractor's proposal number **NNJ11379802R** dated **December 6, 2012** are hereby incorporated into the resultant contract by reference with the same force and effects as if it were given in full text reference in this resulting contract.

(End of clause)

H.4 SMALL BUSINESS SUBCONTRACTING GOALS (JSC 52.219-90) (OCT 2006)

For purposes of this clause, the terms, “HUBZone Small Business Concern”, “Small Disadvantaged Business Concern”, “Service-Disabled, Veteran-Owned Small Business Concern”, “Veteran-Owned Small Business Concern”, “Women-Owned Small Business Concern”, and “Minority Serving Institutions (MSI)” are defined in paragraph 2.101 of the Federal Acquisition Regulation.

The total small business goal, expressed as a percent of total contract value including options, (b) (4) percent. The small business percentage goal, includes the following goals expressed as a percent of total contract value:

Small Disadvantaged Business Concerns	(b) (4)percent
Woman-Owned Small Business Concerns	percent
HUBZone Small Business Concerns	percent
Veteran-Owned Small Business Concern	percent
Service-Disabled, Veteran-Owned Small Business Concern	percent
Minority Serving Institutions	percent

(End of clause)

H.5 APPLICABILITY OF RIGHTS IN DATA

"FAR 52.227-17, Rights in Data--Special Works (incorporated by reference) only applies to a task or delivery order where this clause is explicitly incorporated by reference in said task or delivery order and only to video production deliverables produced under a subject task or delivery order. FAR 52.227-14, Rights in Data -- General applies to all other data."

(End of clause)

H.6 TASK ORDER PROCEDURES

- (a) Only the Contracting Officer may issue task orders to the Contractor, providing specific authorization or direction to perform work within the general scope of the JETS Statement of Work (SOW). The Contractor may incur costs under this contract in performance of task orders and task order modifications issued in accordance with this clause. No other costs are authorized unless otherwise specified in the contract or expressly authorized by the Contracting Officer.
- (b) Prior to issuing a task, the Contracting Officer will provide the Contractor with the following data:
 - (1) A functional description of the work identifying the objectives or results desired from the contemplated task order.

- (2) Proposed performance standards to be used as criteria for determining whether the work requirements have been met.
- (3) A request for a proposal from the Contractor to include:
 - (i) Contractor's proposed technical approach. The Contractor shall not simply copy the Government's requirements, a sound and rational technical approach shall be documented in the task order response.
 - (ii) Period of performance
 - (iii) Clearly discernable and appropriate cost information, including but not limited to a clear estimate using the rates established in Clause B.8-FULLY BURDENED RATE TABLE FOR PRICING COST REIMBURSEMENT (CR) TASK ORDER and any other information required to determine the reasonableness of the Contractor's proposal.
- (c) Within three business days (unless negotiated with the Contracting Officer and another time frame is explicitly and expressly stated in the task order) after receipt of the Contracting Officer's request, the Contractor shall submit a proposal conforming to the request. The Contractor shall provide any re-submittals or supplemental data requested by the Government within three business days (unless otherwise negotiated with the Contracting Officer and another time frame is explicitly and expressly agreed upon).
- (d) After review and any necessary discussions, the Contracting Officer may issue a task order to the Contractor containing, at a minimum, the following:
 - (1) Date of the order.
 - (2) Contract number and order number.
 - (3) Functional description of the work identifying the objectives or results desired from the task order, including special instructions or other information necessary for performance of the task.
 - (4) Performance standards, and where appropriate, quality assurance standards.
 - (5) Maximum dollar amount authorized (cost and fee or price).
 - (6) Any other resources (travel, materials, equipment, facilities, etc.) authorized.
 - (7) Delivery/performance schedule including start and end dates.
 - (8) If contract funding is by individual task order, accounting and appropriation data.
- (e) The Contractor shall provide acknowledgment of receipt to the Contracting Officer within one business day after receipt of the task order.

- (f) If time constraints do not permit issuance of a fully defined task order in accordance with the procedures -described in paragraphs (a) through (d), a task order which includes a ceiling price may be issued.
- (g) The Contracting Officer may amend task orders in the same manner in which they were issued.
- (h) In the event of a conflict between the requirements of the Task Order and the Contractor's approved proposal, the Task Order shall prevail.
- (i) Contractor shall submit data that communicates project status in accordance with the SOW, Project Schedule (DRD RV-01) and Regular Status Report/Summary Review (DRD RV-02)
- (j) In the event of a conflict between the requirements of the task order and the Contractor's approved task plan, the Task Order shall prevail.

(End of clause)

H.7 SAFETY AND HEALTH (NFS 1852.223-70) (APR 2002)

- (a) Safety is the freedom from those conditions that can cause death, injury, occupational illness, damage to or loss of equipment or property, or damage to the environment. NASA's safety priority is to protect: (1) the public, (2) astronauts and pilots, (3) the NASA workforce (including contractor employees working on NASA contracts), and (4) high-value equipment and property.
- (b) The Contractor shall take all reasonable safety and occupational health measures in performing this contract. The Contractor shall comply with all Federal, State, and local laws applicable to safety and occupational health and with the safety and occupational health standards, specifications, reporting requirements, and any other relevant requirements of this contract.
- (c) The Contractor shall take, or cause to be taken, any other safety, and occupational health measures the Contracting Officer may reasonably direct. To the extent that the Contractor may be entitled to an equitable adjustment for those measures under the terms and conditions of this contract, the equitable adjustment shall be determined pursuant to the procedures of the changes clause of this contract; provided, that no adjustment shall be made under this Safety and Health clause for any change for which an equitable adjustment is expressly provided under any other clause of the contract.
- (d) The Contractor shall immediately notify and promptly report to the Contracting Officer or a designee any accident, incident, or exposure resulting in fatality, lost-time occupational injury, occupational disease, contamination of property beyond any stated acceptable limits set forth in the contract Schedule; or property loss of \$25,000 or more, or Close Call (a situation or occurrence with no injury, no damage or only minor damage

(less than \$1,000) but possesses the potential to cause any type mishap, or any injury, damage, or negative mission impact) that may be of immediate interest to NASA, arising out of work performed under this contract. The Contractor is not required to include in any report an expression of opinion as to the fault or negligence of any employee. In addition, service contractors (excluding construction contracts) shall provide quarterly reports specifying lost-time frequency rate, number of lost-time injuries, exposure, and accident/incident dollar losses as specified in the contract Schedule.

(e) The Contractor shall investigate all work-related incidents, accidents, and Close Calls, to the extent necessary to determine their causes and furnish the Contracting Officer a report, in such form as the Contracting Officer may require, of the investigative findings and proposed or completed corrective actions.

(f) (1) The Contracting Officer may notify the Contractor in writing of any noncompliance with this clause and specify corrective actions to be taken. When the Contracting Officer becomes aware of noncompliance that may pose a serious or imminent danger to safety and health of the public, astronauts and pilots, the NASA workforce (including contractor employees working on NASA contracts), or high value mission critical equipment or property, the Contracting Officer shall notify the Contractor orally, with written confirmation. The Contractor shall promptly take and report any necessary corrective action.

(2) If the Contractor fails or refuses to institute prompt corrective action in accordance with subparagraph (f) (1) of this clause, the Contracting Officer may invoke the stop-work order clause in this contract or any other remedy available to the Government in the event of such failure or refusal.

(g) The Contractor (or subcontractor or supplier) shall insert the substance of this clause, including this paragraph (g) and any applicable Schedule provisions and clauses, with appropriate changes of designations of the parties, in all solicitations and subcontracts of every tier, when one or more of the following conditions exist:

(1) The work will be conducted completely or partly on premises owned or controlled by the Government.

(2) The work includes construction, alteration, or repair of facilities in excess of the simplified acquisition threshold.

(3) The work, regardless of place of performance, involves hazards that could endanger the public, astronauts and pilots, the NASA workforce (including Contractor employees working on NASA contracts), or high value equipment or property, and the hazards are not adequately addressed by Occupational Safety and Health Administration (OSHA) or Department of Transportation (DOT) regulations (if applicable).

(4) When the Contractor (or subcontractor or supplier) determines that the assessed risk and consequences of a failure to properly manage and control the

hazard(s) warrants use of the clause.

(h) The Contractor (or subcontractor or supplier) may exclude the provisions of paragraph (g) from its solicitation(s) and subcontract(s) of every tier when it determines that the clause is not necessary because the application of the OSHA and DOT (if applicable) regulations constitute adequate safety and occupational health protection. When a determination is made to exclude the provisions of paragraph (g) from a solicitation and subcontract, the Contractor must notify and provide the basis for the determination to the Contracting Officer. In subcontracts of every tier above the micro-purchase threshold for which paragraph (g) does not apply, the Contractor (or subcontractor or supplier) shall insert the substance of paragraphs (a), (b), (c), and (f) of this clause).

(i) Authorized Government representatives of the Contracting Officer shall have access to and the right to examine the sites or areas where work under this contract is being performed in order to determine the adequacy of the Contractor's safety and occupational health measures under this clause.

(j) The contractor shall continually update the safety and health plan when necessary. In particular, the Contractor shall furnish a list of all hazardous operations to be performed, and a list of other major or key operations required or planned in the performance of the contract, even though not deemed hazardous by the Contractor. NASA and the Contractor shall jointly decide which operations are to be considered hazardous, with NASA as the final authority. Before hazardous operations commence, the Contractor shall submit for NASA concurrence -

(1) Written hazardous operating procedures for all hazardous operations; and/or

(2) Qualification standards for personnel involved in hazardous operations.

(k) In the event of a conflict between JPR1700.1, JSC Safety and Health Handbook and this clause, the JPR 1700.1 requirement shall prevail.

(End of clause)

H.8 CROSS-WAIVER OF LIABILITY FOR INTERNATIONAL SPACE STATION ACTIVITIES (NFS 1852.228-76) (OCT 2009) (DEVIATION)(NASA PIC 9-11 dated 10/5/09)

(a) The Intergovernmental Agreement (IGA) among the Government of Canada, Governments of Member States of the European Space Agency, the Government of Japan, the Government of the Russian Federation, and the Government of the United States of America concerning Cooperation on the Civil International Space Station for the International Space Station (ISS) contains a cross-waiver of liability provision to encourage participation in the exploration, exploitation, and use of outer space through

the ISS. The Parties intend that this cross-waiver of liability be broadly construed to achieve this objective.

(b) As used in this clause, the term:

- (1) "Agreement" refers to any NASA Space Act agreement that contains the cross-waiver of liability provision authorized by 14 CFR Part 1266.102.
- (2) "Damage" means:
 - (i) Bodily injury to, or other impairment of health of, or death of, any person;
 - (ii) Damage to, loss of, or loss of use of any property;
 - (iii) Loss of revenue or profits; or
 - (iv) Other direct, indirect, or consequential damage.
- (3) "Launch Vehicle" means an object, or any part thereof, intended for launch, launched from Earth, or returning to Earth which carries payloads or persons, or both.
- (4) "Partner State" includes each Contracting Party for which the IGA has entered into force, pursuant to Article 25 of the IGA or pursuant to any successor agreement. A Partner State includes its Cooperating Agency. It also includes any entity specified in the Memorandum of Understanding (MOU) between NASA and the Government of Japan's Cooperating Agency in the implementation of that MOU.
- (5) "Party" means a party to a NASA Space Act agreement involving activities in connection with the ISS and a party that is neither the prime contractor under this contract nor a subcontractor at any tier.
- (6) "Payload" means all property to be flown or used on or in a Launch Vehicle or the ISS.
- (7) "Protected Space Operations" means all Launch or Transfer Vehicle activities, ISS activities, and Payload activities on Earth, in outer space, or in transit between Earth and outer space in implementation of the IGA, MOUs concluded pursuant to the IGA, implementing agreements, and contracts to perform work in support of NASA's obligations under these Agreements. It includes, but is not limited to:
 - (i) Research, design, development, test, manufacture, assembly, integration, operation, or use of Launch or Transfer Vehicles, the ISS, Payloads, or instruments, as well as related support equipment and facilities and services; and
 - (ii) All activities related to ground support, test, training, simulation, or guidance and control equipment and related facilities or services. "Protected Space Operations"

also includes all activities related to evolution of the ISS, as provided for in Article 14 of the IGA. "Protected Space Operations" excludes activities on Earth which are conducted on return from the ISS to develop further a Payload's product or process for use other than for ISS-related activities in implementation of the IGA.

(8) "Related Entity" means:

(i) A contractor or subcontractor of a Party or a Partner State at any tier;

(ii) A user or customer of a Party or a Partner State at any tier; or

(iii) A contractor or subcontractor of a user or customer of a Party or a Partner State at any tier. The terms "contractor" and "subcontractor" include suppliers of any kind.

(9) "Transfer Vehicle" means any vehicle that operates in space and transfers Payloads or persons or both between two different space objects, between two different locations on the same space object, or between a space object and the surface of a celestial body. A "Transfer Vehicle" also includes a vehicle that departs from and returns to the same location on a space object.

(c)(1) The Contractor agrees to a cross-waiver of liability pursuant to which it waives all claims against any of the entities or persons listed in paragraphs (c)(1)(i) through (c)(1)(iv) of this clause based on Damage arising out of Protected Space Operations. This cross-waiver shall apply only if the person, entity, or property causing the Damage is involved in Protected Space Operations and the person, entity, or property damaged is damaged by virtue of its involvement in Protected Space Operations. The cross-waiver shall apply to any claims for Damage, whatever the legal basis for such claims, against:

(i) A Party as defined in (B)(5) above;

(ii) A Partner State other than the United States of America;

(iii) A Related Entity of any entity identified in paragraph (c)(1)(i) or (c)(1)(ii) of this clause; or

(iv) The employees of any of the entities identified in paragraphs (c)(1)(i) through (c)(1)(iii) of this clause.

(2) In addition, the contractor shall, by contract or otherwise, extend the cross-waiver of liability set forth in paragraph (c)(1) of this clause to its subcontractors at any tier by requiring them, by contract or otherwise, to:

(i) Waive all claims against the entities or persons identified in paragraphs (c)(1)(i) through (c)(1)(iv) of this clause; and

(ii) Require that their subcontractors waive all claims against the entities or persons identified in paragraphs (c)(1)(i) through (c)(1)(iv) of this clause.

(3) For avoidance of doubt, this cross-waiver of liability includes a cross-waiver of claims arising from the *Convention on International Liability for Damage Caused by Space Objects*, which entered into force on September 1, 1972, where the person, entity, or property causing the Damage is involved in Protected Space Operations and the person, entity, or property damaged is damaged by virtue of its involvement in Protected Space Operations.

(4) Notwithstanding the other provisions of this clause, this cross-waiver of liability shall not be applicable to:

- (i) Claims between the Government and its own contractors or between its own contractors and subcontractors;
 - (i) Claims made by a natural person, his/her estate, survivors or subrogees (except when a subrogee is a Party to an Agreement or is otherwise bound by the terms of this cross-waiver) for bodily injury to, or other impairment of health of, or death of, such person;
 - (iii) Claims for Damage caused by willful misconduct;
 - (iv) Intellectual property claims;
 - (v) Claims for Damage resulting from a failure of the contractor to extend the cross-waiver of liability to its subcontractors and related entities, pursuant to paragraph (c)(2) of this clause; or
 - (vi) Claims by the Government arising out of or relating to the contractor's failure to perform its obligations under this contract.
- (5) Nothing in this clause shall be construed to create the basis for a claim or suit where none would otherwise exist.
- (6) This cross-waiver shall not be applicable when 49 U.S.C. Subtitle IX, Chapter 701 is applicable.

(End of clause)

**H.9 CROSS-WAIVER OF LIABILITY FOR SCIENCE OR SPACE EXPLORATION
ACTIVITIES UNRELATED TO THE INTERNATIONAL SPACE STATION
(NFS 1852.228-78) (OCT 2009) (DEVIATION) (NASA PIC 9-11 dated 10/5/09)**

(a) The purpose of this clause is to extend a cross-waiver of liability to NASA contracts for work done in support of Agreements between Parties involving Science or Space Exploration activities, unrelated to the International Space Station (ISS), but which

involve a launch. This cross-waiver of liability shall be broadly construed to achieve the objective of furthering participation in space exploration, use, and investment.

(b) As used in this clause, the term:

(1) "Agreement" refers to any NASA Space Act agreement that contains the cross-waiver of liability provision authorized in 14 CFR 1266.104.

(2) "Damage" means:

(i) Bodily injury to, or other impairment of health of, or death of, any person;

(ii) Damage to, loss of, or loss of use of any property;

(iii) Loss of revenue or profits; or

(iv) Other direct, indirect, or consequential Damage;

(3) "Launch Vehicle" means an object, or any part thereof, intended for launch, launched from Earth, or returning to Earth which carries Payloads or persons, or both.

(4) "Party" means a party to a NASA Space Act agreement for Science or Space Exploration activities, unrelated to the ISS, but which involve a launch and a party that is neither the prime contractor under this contract nor a subcontractor at any tier hereto.

(5) "Payload" means all property to be flown or used on or in a Launch Vehicle.

(6) "Protected Space Operations" means all Launch or Transfer Vehicle activities and Payload activities on Earth, in outer space, or in transit between Earth and outer space in implementation of an Agreement for Science or Space Exploration activities, unrelated to the ISS, but which involve a launch. Protected Space Operations begins at the signature of the Agreement and ends when all activities done in implementation of the agreement are completed. It includes, but is not limited to:

(i) Research, design, development, test, manufacture, assembly, integration, operation, or use of Launch or Transfer Vehicles, Payloads, or instruments, as well as related support equipment and facilities and services; and

(ii) All activities related to ground support, test, training, simulation, or guidance and control equipment, and related facilities or services.

Protected Space Operations excludes activities on Earth which are conducted on return from space to develop further a Payload's product or process other than for the activities within the scope of an Agreement.

(7) "Related entity" means:

(i) A contractor or subcontractor of a Party at any tier;

(ii) A user or customer of a party at any tier; or

(iii) A contractor or subcontractor of a user or customer of a Party at any tier.

The terms "contractors" and "subcontractors" include suppliers of any kind.

(c) Cross-waiver of liability:

(1) The contractor agrees to a waiver of liability pursuant to which it waives all claims against any of the entities or persons listed in paragraphs (c)(1)(i) through (c)(1)(iv) of this clause based on Damage arising out of Protected Space Operations. This cross-waiver shall apply only if the person, entity, or property causing the Damage is involved in Protected Space Operations and the person, entity, or property damaged is damaged by virtue of its involvement in Protected Space Operations. The waiver shall apply to any claims for Damage, whatever the legal basis for such claims, against:

(i) A Party;

- (ii) A Party to another NASA Agreement or contract that includes flight on the same Launch Vehicle;
 - (iii) A Related Entity of any of the entities identified in (c)(1)(i) or (c)(1)(ii) of this clause; or
 - (iv) The employees of any of the entities identified in (c)(1)(i) through (c)(1)(iii) of this clause.
- (2) The contractor agrees to extend the cross-waiver of liability as set forth in paragraph (c)(1) of this clause to its own subcontractors at all tiers by requiring them, by contract or otherwise, to:
- (i) Waive all claims against the entities or persons identified in paragraphs (c)(1)(i) through (c)(1)(iv) of this clause; and
 - (ii) Require that their Related Entities waive all claims against the entities or persons identified in paragraph (c)(1)(i) through (c)(1)(iv) of this clause.
- (3) For avoidance of doubt, this cross-waiver includes a cross-waiver of claims arising from the *Convention on International Liability for Damage Caused by Space Objects*, which entered into force on September 1, 1972, where the person, entity, or property causing the Damage is involved in Protected Space Operations and the person, entity, or property damaged is damaged by virtue of its involvement in Protected Space Operations.
- (4) Notwithstanding the other provisions of this clause, this cross-waiver of liability shall not be applicable to:
- (i) Claims between the Government and its own contractors or between its own contractors and subcontractors;
 - (ii) Claims made by a natural person, his/her estate, survivors, or subrogees (except when a subrogee is a Party to an Agreement or is otherwise bound by the terms of this cross-waiver) for bodily injury to, or other impairment of health, or death of such person;
 - (iii) Claims for Damage caused by willful misconduct;
 - (iv) Intellectual property claims;
 - (v) Claims for damages resulting from failure of the contractor to extend the cross-waiver of liability to its subcontractors and related entities, pursuant to paragraph (c)(2) of this clause; or
 - (vi) Claims by the Government arising out of or relating to a contractor's failure to perform its obligations under this contract.
- (5) Nothing in this clause shall be construed to create the basis for a claim or suit where none would otherwise exist.
- (6) This cross-waiver shall not be applicable when 49 U.S.C. Subtitle IX, Chapter 701 is applicable.

(End of clause)

H.10 KEY PERSONNEL AND FACILITIES (NFS 1852.235-71) (MAR 1989)

- (a) The personnel and/or facilities listed below are considered essential to the work being performed under this contract. Before removing, replacing, or diverting any of the listed or specified personnel or facilities, the Contractor shall (1) notify the Contracting Officer reasonably in advance and (2) submit justification (including proposed substitutions) in sufficient detail to permit evaluation of the impact on this contract.

(b) The Contractor shall make no diversion without the Contracting Officer's written consent; provided that the Contracting Officer may ratify in writing the proposed change, and that ratification shall constitute the Contracting Officer's consent required by this clause.

(c) The list of personnel and/or facilities (shown below or as specified in the contract Schedule) may, with the consent of the contracting parties, be amended from time to time during the course of the contract to add or delete personnel and/or facilities.

Key Personnel: (Includes full name and position title)

Lon Miller, General Manager

(b) (4)

Key Facilities: 2224 Bay Area Blvd., Houston TX, 77508

(End of clause)

H.11 OBSERVANCE OF LEGAL HOLIDAYS (NFS 1852.242-72) (AUG 1992)
(ALTERNATE 1) (SEPT 1989)

(a) The on-site Government personnel observe the following holidays:

New Year's Day
Martin Luther King, Jr.'s Birthday
President's Day
Memorial Day

Labor Day
Columbus Day
Veterans Day
Thanksgiving Day

Independence Day

Christmas Day

Any other day designated by Federal statute, Executive order, or the President's proclamation.

(b) When any holiday falls on a Saturday, the preceding Friday is observed. When any holiday falls on a Sunday, the following Monday is observed. Observance of such days by Government personnel shall not by itself be cause for an additional period of performance or entitlement of compensation except as set forth within the contract.

(c) On-site personnel assigned to this contract shall not be granted access to the installation during the holidays in paragraph (a) of the clause, except as follows: the Contractor shall provide sufficient on-site personnel to perform round-the-clock requirements of critical work already in process, unless otherwise instructed by the Contracting Officer or authorized representative. If the Contractor's on-site personnel work during a holiday other than those in paragraph (a) of this clause, no form of holiday or other premium compensation shall be reimbursed as either a direct or indirect cost. However, this does not preclude reimbursement for authorized overtime work that would have been overtime regardless of the status of the day as a holiday.

(d) The Contractor shall place identical requirements, including this paragraph, in all subcontracts that require performance of work on-site, unless otherwise instructed by the Contracting Officer.

(End of clause)

H.12 ENVIROMENTAL AND ENERGY CONSERVATION REQUIREMENTS (JSC 52.223-93) (Feb 2011)

(a) The Contractor shall ensure that all work performed and equipment used to fulfill the requirements of this contract are in compliance with all Federal, state, and local regulations and public laws, and the following NASA JSC directives: JPR 8550.1, JSC Environmental Compliance Procedural Requirements; JPR 8553.1, JSC Environmental Management System Manual; JWI 8553.1, EMS Aspect/Impact Assessment and EMP Process; NPR 8570.1, Energy Efficiency and Water Conservation; and JWI 8570.1, Energy Conservation. The Contractor shall provide data on affirmative procurement, waste reduction activity, energy efficient product procurement, and ozone depleting substances in accordance with NPR 8530.1.

(b) The Government remains the owner and operator of record for all environmental activities conducted at NASA owned properties unless otherwise documented in a signed agreement between NASA and the Contractor. The Contractor is advised that activities performed at JSC and associated facilities are subject to Federal, state and local regulatory agency inspections to review compliance with environmental laws and regulations. For on-site issues, JSC's Environmental Office will be the single point of contact with Federal and state regulatory agencies and their representatives unless

otherwise directed by the Contracting Officer or the Environmental Office. The Contractor shall immediately notify the JSC Environmental Office when contacted by external regulatory agency representatives and shall cooperate fully. The Contractor shall complete, maintain, and make available to the Contracting Officer, JSC Environmental Office, JSC Energy Manager, or regulatory agency personnel all documentation relating to environmental compliance matters under applicable laws. The Contractor shall immediately notify the JSC Environmental Office upon issuance of a Notice of Violation or noncompliance to the Contractor.

(c) Should a Notice of Violation, Notice of Noncompliance, Notice of Deficiency, or similar regulatory agency notice be issued to the Government as a facility owner/operator on account of the actions or inactions of the Contractor or one of its subcontractors in the performance of work under this contract, the Contractor shall fully cooperate with the Government in correcting any problems and defending against regulatory assessment of any civil fines or penalties arising out of such actions or inactions.

(End of clause)

H.13 ADMINISTRATIVE LEAVE (JSC 52.242-94) (SEP 2008)

(a) When the NASA installation grants administrative leave to its Government employees (e.g., as a result of inclement weather, potentially hazardous conditions, or other special circumstances), the following personnel should also be dismissed upon notification of a center closure provided by the Contracting Officer:

1. Contractor personnel working on-site; and
2. Contractor personnel dedicated to the contract effort who are
 - a) working off-site within 10 miles of JSC; and
 - b) unable to perform their NASA contract duties at their off-site location because their normal place of business has been or is expected to be negatively impacted by an emergency situation (e.g. has sustained damage, has been evacuated, etc.).

However, the contractor shall provide sufficient on-site personnel to perform round-the-clock requirements of critical work already in process, unless otherwise instructed by the Contracting Officer or authorized representative.

(b) Administrative leave granted under this clause shall be subject to modification or termination by the Contracting Officer and in all instances shall be subject to the availability of funds. The cost of salaries and wages to the Contractor for the period of any such excused absence shall be a reimbursable item of cost under this contract for effected employees in accordance with the Contractor's established accounting policy.

1. If a labor hour-based contract, administrative leave granted under this clause shall be accounted for consistent with productive hours under this contract for employees

in accordance with the Contractor's established accounting policy.

2. For fixed price contracts based on other than labor hours for deliverables, the Contracting Officer and Contractor shall as a precondition to any reimbursement negotiate an advanced agreement to determine the appropriate method in which to grant administrative leave under this clause.

3. All invoices requesting payment under this clause shall be marked as "Administrative Leave in accordance with 52.242-94, Administrative Leave." All such invoices paid will be subject to review, audit, and revision when routine operations recommence.

(c) The Contractor shall include this clause in all services subcontracts that include personnel in the categories described in (a) above.

(End of clause)

H.14 WORK IN PROGRESS (WIP) REPORTING FOR ON-SITE VS. OFF-SITE WORK

For on-site Johnson Space Center work in progress reporting, the contractor shall only supply its labor costs associated with that work to the controlling JSC organization for that organization to establish the total cost of the item and coordinate establishment of the property record at JSC.

WIP performed off-site by the contractor shall be reported by the contractor IAW NASA FAR Supplement 1845.7101 "Instructions For Preparing NASA Form 1018" and controlled in accordance with FAR 52.245-1 (Aug 2010).

(End of clause)

H.15 SUBCONTRACTING WITH RUSSIAN ENTITIES FOR GOODS OR SERVICES

(a) Definitions: In this provision:

(1) The term "Russian entities" means:

(A) Russian persons, or

(B) Entities created under Russian law or owned, in whole or in part, by Russian persons or companies including, but not limited to, the following:

(i) The Russian Federal Space Agency (Roscosmos),

(ii) Any organization or entity under the jurisdiction or control of Roscosmos, or

(iii) Any other organization, entity, or element of the Government of the Russian Federation.

(2) The term “extraordinary payments” means payments in cash or in kind made or to be made by the United States Government prior to July 1, 2016, for work to be performed or services to be rendered prior to that date necessary to meet United States obligations under the Agreement Concerning Cooperation on the Civil International Space Station, with annex, signed at Washington January 29, 1998, and entered into force March 27, 2001, or any protocol, agreement, memorandum of understanding, or contract related thereto.

(b) This clause implements the reporting requirement in section 6(i) of the Iran, North Korea, and Syria Nonproliferation Act. The provisions of this clause are without prejudice to the question of whether the Contractor or its subcontractor(s) are making extraordinary payments under section 6(a) or fall within the exceptions in section 7(1)(B) of the Act. NASA has applied the restrictions in the Act to include funding of Russian entities via U.S. Contractors.

(c)(1) The Contractor shall not subcontract with Russian entities without first receiving written approval from the CO. In order to obtain this written approval to subcontract with any Russian entity as defined in paragraphs (a), the Contractor shall provide the CO with the following information related to each planned new subcontract and any change to an existing subcontract with entities that fit the description in paragraph (a):

(A) A detailed description of the subcontracting entity, including its name, address, and a point of contact, as well as a detailed description of the proposed subcontract including the specific purpose of payments that will be made under the subcontract.

(B) The Contractor shall provide certification that the subcontracting entity is not, at the date of the subcontract approval request, on any of the lists of proscribed denied parties, specially designated nationals and entities of concern found at:

BIS's Listing of Entities of Concern (see <http://www.access.gpo.gov/bis/ear/pdf/744spir.pdf>)
BIS's List of Denied Parties (see <http://www.bis.doc.gov/dpl/Default.shtm>)
OFAC's List of Specially Designated Nationals (Adobe® PDF format) (see <http://www.treas.gov/offices/enforcement/ofac/sdn/t11sdn.pdf>)
List of Unverified Persons in Foreign Countries (see http://www.bis.doc.gov/Enforcement/UnverifiedList/unverified_parties.html)
State Department's List of Parties Statutorily Debarred for Arms Export Control Act Convictions (see <http://www.pmddtc.state.gov/debar059.htm>)
State Department's Lists of Proliferating Entities (see <http://www.state.gov/t/isn/c15231.htm>)

(2) Unless relief is granted by the CO, the information necessary to obtain approval to subcontract shall be provided to the CO 30 business days prior to executing any planned subcontract with entities defined in paragraph (a).

(d) After receiving approval to subcontract, the Contractor shall provide the CO with a report every six months that documents the individual payments made to an entity in paragraph (a). The reports are due on July 15th and January 15th. The July 15th report shall document all of the individual payments made from the previous January through June. The January 15th report shall document all of the individual payments made from the previous July through December. The content of the report shall provide the following information for each time a payment is made to an entity in paragraph (a):

- (1) The name of the entity
- (2) The subcontract number
- (3) The amount of the payment
- (4) The date of the payment

(e) The CO may direct the Contractor to provide additional information for any other prospective or existing subcontract at any tier. The CO may direct the Contractor to terminate for the convenience of the Government any subcontract at any tier with an entity described in paragraph (a), subject to an equitable adjustment.

(f) Notwithstanding FAR 52.216-7, "Allowable Cost and Payments," on or after June 30, 2016 the Contractor shall be responsible to make payments to entities defined in paragraph (a) of this provision. Any subcontract with entities defined in paragraph (a), therefore, shall be completed in sufficient time to permit the U.S. Government to make extraordinary payments on subcontracts with Russian entities on or before June 30, 2016.

(g) The Contractor shall include the substance of this clause in all its subcontracts, and shall require such inclusion in all other subcontracts of any tier. The Contractor shall be responsible to obtain written approval from the CO to enter into any tier subcontract that involves entities defined in paragraph (a).

(End of Clause)

H.16 EXTERNAL CUSTOMER EFFORT

The Government may allow nonexclusive, non-government use of Engineering and ARES Directorate facilities, Attachment J-25, by the contractor under this contract. If found appropriate by the Government through the Contracting Officer, the contractor and Government shall enter into a Reimbursable Space Act Agreement (RSAA) which will outline the benefit the Government will derive from the contractor's non-government use of designated property through rental receipts along with the terms and conditions related to the use of this equipment.

The contractor's use of such property for such purposes shall be subject to the terms and conditions of this contract.

The Government recognizes the benefit it derives from the contractor's non-government use of designated property through rental receipts as defined under the RSAA and that this

benefit through the contractor's ability to provide non-government use services to its customers is dependent upon the reliability of the contractor's access to the designated property.

The contractor shall deliver external partners for NASA that off-set costs over the life of the JETS contract. The details of this commitment are documented in the JETS Award Fee Plan (Attachment J-11) and the JETS External Customer Plan (DRD MGMT-10).

The property authorized for non-Government use along with the terms and conditions for the use of this designated equipment will be set forth in the RSAA. Any dispute associated with this clause and/or the contractor's exercise of its authority for non-governmental use of the designated property shall be subject to the "Disputes" clause of this contract.

The Government reserves the right to enter into other reimbursable agreements within NASA or with other entities. Such agreements (e.g., Internal Task Agreements, Space Act Agreements) may require contractor support. In the case that contractor support is required in the execution of these other agreements; the contractor shall support these efforts via task orders issued by the Contracting Officer. As a matter of protocol and courtesy, the Government will provide notice before entering into other reimbursable agreements that would interfere with performance of a RSAA between the contractor and the Government or any other contractor work. The Government's intent is to avoid interfering with the execution of contractor agreements.

(End of clause)

H. 17 ASSOCIATE CONTRACTOR AGREEMENTS (ACA) FOR JETS ACTIVITIES

(a) The success of the JETS Contract is dependent on the efforts of multiple Contractors. At a minimum, the Contractor shall develop, maintain and adhere to ACAs with the following contracts and their successors:

- i. The contractors that provide IT support services at JSC (end user services, desktop management, data center services, communication services, applications services, web based services, and media services)

ACES – Agency Consolidated End-User Services Contract
EPIC – Engineering Products Integration Contract

- ii. The contractor that provides facility services and maintenance at JSC

FSS – Facility Support Services

- iii. The contractor that provides quality and safety support services to the S&MA Directorate at JSC

SMASSC – Safety and Mission Assurance Support Services Contract

CISS – Center Institutional Safety Support Contract

- iv. The other contractors that provides support to the JSC Engineering Directorate.

EFS – Engineering Fabrication Services Contract

CRAVE II – Crew, Robotics, Avionics and Vehicle Equipment

CAMS II – Calibration and Metrology Services II

SEETS – Specialized Engineering, Evaluation and Test Services

- v. Contracts supporting other directorates, programs and offices at JSC which may interface with JETS

FBMS – Financial and Business Management Services Contract

BC – Bioastronautics Contract

International Space Station (ISS) Vehicle Sustaining Engineering Contract

CEV – Orion Crew Exploration Vehicle Contract

The Contractor shall develop, maintain and adhere to ACA's with any other interfaces the Contractor deems necessary to avoid negatively impacting the JETS contract work.

The Contractor shall make all ACAs available to the JETS Contracting Officer (CO) and Contracting Officer's Technical Representative (COTR).

- (b) The Contractor shall document agreements with other associate Contractors described in (a) above via Associate Contractor Agreements. The Government will not be a party in such Associate Contractor Agreements. All costs associated with such agreements are included in the negotiated price of this contract. Any additional ACA required shall be developed, modified and kept current at no additional cost to the Government. In order to achieve efficient and effective implementation of JETS operations; the Contractor shall establish the means for coordination and exchange of information with associate Contractors. The information to be exchanged shall be that required by the Contractors in the execution of their respective contract requirements. The Contractors are strongly encouraged to seek out and foster cooperative efforts that will benefit JETS with increased safety, efficiency, and productivity.
- (c) The Contractor is not relieved of any contract requirements or entitled to any adjustments to the contract terms because of the failure to resolve a disagreement with an associate Contractor. Liability for the improper disclosure of any proprietary data contained in or referenced by any agreement shall rest with the parties to the agreement, and not the Government.
- (d) A copy of the ACA shall be provided to the Contracting Officer within 30-days after agreement is reached.

(End of clause)

H.18 GOVERNMENT-FURNISHED COMPUTER SOFTWARE AND RELATED TECHNICAL DATA

(a) Definitions. As used in this clause—

“Government-furnished computer software” or “GFCS” means computer software: (1) in the possession of, or directly acquired by, the Government whereby the Government has title or Government purpose license rights thereto; and (2) subsequently furnished to the Contractor for performance of a Government contract.

“Computer software,” “data” and “technical data” have the meaning provided in the Federal Acquisition Regulations (FAR) Subpart 2.1—Definitions and the Rights in Data – General clause (FAR 52.227-14).

(b) The Government shall furnish to the Contractor the GFCS described in Section J-23 of this contract. The Government shall furnish related technical data needed for the intended use of the GFCS.

(c) Use of GFCS and related technical data. The Contractor shall use the GFCS and related technical data, and any modified or enhanced versions thereof, only for performing work under this contract unless otherwise provided for in this contract or approved by the Contracting Officer.

(1) The Contractor shall not, without the express written permission of the Contracting Officer, reproduce, distribute copies, perform publicly, display publicly, release, or disclose the GFCS or related technical data to any person except for the performance of work under this contract.

(2) The Contractor shall not modify or enhance the GFCS unless this contract specifically identifies the modifications and enhancements as work to be performed. If the GFCS is modified or enhanced pursuant to this contract, the Contractor shall provide to the Government the complete source code, if any, of the modified or enhanced GFCS.

(3) Allocation of rights associated with any GFCS or related technical data modified or enhanced under this contract shall be defined by the FAR Rights in Data clause(s) included in this contract. If no Rights in Data clause is included in the contract, then the FAR Rights in Data – General (FAR 52.227-14) shall apply to all data first produced in the performance of this contract.

(4) The Contractor may provide the GFCS, and any modified or enhanced versions thereof, to subcontractors as required for the performance of work under this contract. Before release of the GFCS, and any modified or enhanced versions thereof, to such subcontractors (at any tier), the Contractor shall insert, or require the insertion of, this clause, including this paragraph (c)(4), suitably modified to reflect the relationship of the parties, in all such subcontracts (regardless of tier).

(d) The Government provides the GFCS in an “AS-IS” condition. The Government makes no warranty with respect to the serviceability and/or suitability of the GFCS for contract performance.

- (e) The Contracting Officer may by written notice, at any time—
- (1) Increase or decrease the amount of GFCS under this contract;
 - (2) Substitute other GFCS for the GFCS previously furnished, to be furnished, or to be acquired by the Contractor for the Government under this contract;
 - (3) Withdraw authority to use the GFCS or related technical data; or
 - (4) Instruct the Contractor to return or dispose of the GFCS and related technical data.
- (f) Title to or license rights in GFCS. The Government shall retain title to or license rights in all GFCS. Title to or license rights in GFCS shall not be affected by its incorporation into or attachment to any data not owned by or licensed to the Government.
- (g) Waiver of Claims and Indemnification. The Contractor agrees to waive any and all claims against the Government and shall indemnify and hold harmless the Government, its agents, and employees from every claim or liability, including attorneys fees, court costs, and expenses, arising out of, or in any way related to, the misuse or unauthorized modification, reproduction, release, performance, display, or disclosure of the GFCS and related technical data by the Contractor or by any person to whom the Contractor has released or disclosed such GFCS or related technical data.

(End of clause)

H.19 CALIBRATION

(b) (4)

H.20 Handling and Protection of Government Controlled Contractor Generated Data

- (a) In the performance of this contract it is anticipated that the Contractor may generate data which the Government intends to control the release, publication, distribution and use thereof.
- (b) For data generated by the Contractor in support of an identified Space Act Agreement, Commercial Space Launch Act Agreement, Commercial Space Competitiveness Act Agreement, or Cooperative Research and Development Agreement, to which the Contractor is not party to such agreements; or for data otherwise identified by the Contracting Officer, the Contractor agrees, for a period of 5 years from the date of development of such data, to:

- (1) use and disclose such data only to the extent necessary to perform the work required under this contract in support of such agreement, with particular emphasis on restricting disclosure of the data to those persons who have a definite need for the data in order to perform under this contract in support of such agreement;
- (2) not reproduce the data unless reproduction of the data is required to accomplish work required under this contract in support of such agreement, the reproduction shall carry the same marking as which appears on the original pursuant to the requirements of Paragraph (b)(5) of this clause;
- (3) refrain from disclosing the data to third parties without the written consent of the Contracting Officer except for subcontractors, contract labor, consultants and agents of the Contractor who have a need to know to accomplish work required under this contract in support of such agreement;
- (4) return or deliver the data including all copies thereof to the Contracting Officer or his designated recipient when requested by the Contracting Officer; and
- (5) mark such data with the following or a similar restrictive notice:

SENSITIVE BUT UNCLASSIFIED INFORMATION – SPACE ACT AGREEMENT

The data herein were created on [enter date]; are restricted under the Data Rights Provision of Space Act Agreement (SAA) [provide applicable reference number]; and shall be used and disclosed only to the extent necessary to perform work required to support such SAA. After [enter date X years after creation date], these restrictions are no longer applicable.

- (c) The Contractor shall include the substance of this clause, including paragraph (c), suitably modified to reflect the relationship of the parties, in all subcontracts that may require the subcontractor to generate data in support of such agreements.

[End of Clause]

H.21 RECEIVING INSPECTION AND TEST FACILITY (RITF) UTILIZATION

The Contractor shall utilize the services of the RITF to the maximum extent practicable. Services provided by the RITF include: failure analysis; electrical, electronic, and electromechanical (EEE) part screening; metallic alloy testing for mechanical, chemical, and physical properties; fastener screening; and NASA unique and NASA approved IPC electronic workmanship training.

(End of clause)

H.22 USE OF JSC FABRICATION CAPABILITY

The Contractor shall utilize the services of the JSC fabrication capability located in buildings 9 and 10 to the maximum extent practicable for manufacturing, fabrication, assembly, and metal finishing utilized under this contract, the total cost of which would otherwise be a direct charge to this contract.

(End of clause)

H.23 MITIGATION OF ORGANIZATIONAL CONFLICTS OF INTEREST

(a) Mitigation plan. The Organizational Conflict of Interest Mitigation Plan and its obligations are hereby incorporated in the contract by reference.

(b) Changes.

(1) Either the Contractor or the Government may propose changes to the Organizational Conflict of Interest Mitigation Plan. Such changes are subject to the mutual agreement of the parties and will become effective only upon incorporating the change into the plan by contract amendment.

(2) In the event that the Government and the Contractor cannot agree upon a mutually acceptable change, the Government reserves the right to make a unilateral change to the OCI Plan as necessary, with the approval of the head of the contracting activity, subject to Contractor appeal as provided in the Disputes clause.

(c) Violation. The Contractor shall report any violation of the Organizational Conflict of Interest Mitigation Plan, whether by its own personnel or those of the Government or other contractors, to the Contracting Officer. This report shall include a description of the violation and the actions the Contractor has taken or proposes to take to mitigate and avoid repetition of the violation. After conducting such further inquiries and discussions as may be necessary, the Contracting Officer and the Contractor shall agree on appropriate corrective action, if any, or the Contracting Officer will direct corrective action.

(d) Breach. Any breach of the above restrictions or any nondisclosure or misrepresentation of any relevant facts required regarding organizational conflicts of interests to be disclosed may result in termination of this contract for default or other remedies as may be available under law or regulation.

(e) Subcontracts. The Contractor shall include the substance of this clause, including this paragraph (e), in subcontracts where the work includes or may include tasks related to the organizational conflict of interest. The terms "Contractor" and "Contracting Officer" shall be appropriately modified to reflect the change in parties and to preserve the Government's rights.

(End of clause)

H.24 DISCLOSURE OF ORGANIZATIONAL CONFLICT OF INTEREST AFTER CONTRACT AWARD

(a) If the Contractor identifies an actual or potential organizational conflict of interest that has not already been adequately disclosed and resolved (or waived in accordance with FAR 9.503), the Contractor shall make a prompt and full disclosure in writing to the Contracting Officer. This disclosure shall include a description of the action the Contractor has taken or proposes to take in order to resolve the conflict. This reporting requirement also includes subcontractors' actual or potential organizational conflicts of interest not adequately disclosed and resolved prior to award.

(b) Mitigation Plan. If there is a mitigation plan in the contract, the Contractor shall periodically update the plan, based on changes such as changes to the legal entity, the overall structure of the organization, subcontractor arrangements, contractor management, ownership, ownership relationships, or modification of the work scope.

(End of clause)

[END OF SECTION]

SECTION I – CONTRACT CLAUSES

I.1 LISTING OF CLAUSES INCORPORATED BY REFERENCE

Clause(s) at the beginning of this Section are incorporated by reference, with the same force and effect as if they were given in full text. Clauses incorporated by reference which require a fill-in by the Government include the text of the affected paragraph(s) only. This does not limit the clause to the affected paragraph(s). The Contractor is responsible for understanding and complying with the entire clause.

I. FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1)

<u>Clause Number</u>	<u>Date</u>	<u>Title</u>
52.202-1	JAN 2012	DEFINITIONS
52.203-3	APR 1984	GRATUITIES
52.203-5	APR 1984	COVENANT AGAINST CONTINGENT FEES
52.203-6	SEP 2006	RESTRICTIONS ON SUBCONTRACTOR SALES TO THE GOVERNMENT
52.203-7	OCT 2010	ANTI-KICKBACK PROCEDURES
52.203-8	JAN 1997	CANCELLATION, RESCISSION, AND RECOVERY OF FUNDS FOR ILLEGAL OR IMPROPER ACTIVITY
52.203-10	JAN 1997	PRICE OR FEE ADJUSTMENT FOR ILLEGAL OR IMPROPER ACTIVITY
52.203-12	OCT 2010	LIMITATION ON PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS
52.203-13	APR 2010	CONTRACTOR CODE OF BUSINESS ETHICS AND CONDUCT
52.204-2	AUG 1996	SECURITY REQUIREMENTS
52.204-4	MAY 2011	PRINTED OR COPIED DOUBLE-SIDED ON RECYCLED PAPER
52.204-7	FEB 2012	CENTRAL CONTRACTOR REGISTRATION

52.204-9	JAN 2011	PERSONAL IDENTITY VERIFICATION OF CONTRACTOR PERSONNEL
52.204-10	FEB 2012	REPORTING EXECUTIVE COMPENSATION AND FIRST-TIER SUBCONTRACT AWARDS
52.204-14	JAN 2014	SERVICE CONTRACT REPORTING REQUIREMENTS
52.209-6	DEC 2010	PROTECTING THE GOVERNMENT'S INTEREST WHEN SUBCONTRACTING WITH CONTRACTORS DEBARRED, SUSPENDED, OR PROPOSED FOR DEBARMENT
52.209-10	MAY 2012	PROHIBITION ON CONTRACTING WITH INVERTED DOMESTIC CORPORATIONS
52.210-1	APR 2011	MARKET RESEARCH
52.211-5	AUG 2000	MATERIAL REQUIREMENTS
52.211-15	APR 2008	DEFENSE PRIORITY AND ALLOCATION REQUIREMENTS
52.215-2	OCT 2010	AUDIT AND RECORDS- NEGOTIATION
52.215-8	OCT 1997	ORDER OF PRECEDENCE – UNIFORM CONTRACT FORMAT
52.215-11	AUG 2011	PRICE REDUCTION FOR DEFECTIVE COST OR PRICING DATA – MODIFICATIONS
52.215-10	OCT 1997	PRICE REDUCTION FOR DEFECTIVE COST OR PRICING DATA
52.215-13	OCT 2010	SUBCONTRACTOR COST OR PRICING DATA – MODIFICATIONS
52.215-14	OCT 2010	INTEGRITY OF UNIT PRICES
52.215-15	OCT 2010	PENSION ADJUSTMENTS AND ASSET REVERSIONS
52.215-17	OCT 1997	WAIVER OF FACILITIES CAPITAL COST OF MONEY
52.215-18	JUL 2005	REVERSION OR ADJUSTMENT OF PLANS FOR

POSTRETIREMENT BENEFITS (PRB) OTHER THAN PENSIONS

52.215-21	OCT 2010	REQUIREMENTS FOR COST OR PRICING DATA OR INFORMATION OTHER THAN COST OR PRICING DATA – MODIFICATIONS (ALTERNATE III) (OCT 1997) (c) Submit the cost portion of the proposal via the following electronic media: email and/or compact disc (CD)
52.215-22	OCT 2009	LIMITATIONS ON PASS-THROUGH CHARGES – IDENTIFICATION OF SUBCONTRACT EFFORT
52.215-23	OCT 2009	LIMITATIONS ON PASS-THROUGH CHARGES. (ALT.1) (OCT 2009)
52.216-7	JUN 2011	ALLOWABLE COST AND PAYMENT
52.216-18	OCT 1995	ORDERING
52.217-8	NOV 1999	OPTION TO EXTEND SERVICES The Contracting Officer may exercise the option by written notice to the Contractor within <u>60 calendar days</u> prior to the Option start date.
52.217-9	MAR 2000	OPTION TO EXTEND THE TERM OF THE CONTRACT (a) The Government may extend the term of this contract by written notice to the Contractor no later than <u>30 calendar days</u> prior to the Option start date, provided that the Government gives the Contractor a preliminary written notice of its intent to extend at least <u>60 calendar days</u> before the contract expires. The preliminary notice does not commit the Government to an extension. (c) The total duration of this contract, including the exercise of any options under this clause, shall not exceed <u>9 years</u> .
52.219-4	JAN 2011	NOTICE OF PRICE EVALUATION PREFERENCE FOR HUB ZONE SMALL BUSINESS CONCERNS
52.219-8	JAN 2011	UTILIZATION OF SMALL BUSINESS CONCERNS

52.219-14	NOV 2011	LIMITATIONS ON SUBCONTRACTING
52.219-16	JAN 1999	LIQUIDATED DAMAGES – SUBCONTRACTING PLAN
52.219-25	DEC 2010	SMALL DISADVANTAGED BUSINESS PARTICIPATION PROGRAM – DISADVANTAGED STATUS AND REPORTING
52.219-28	APR 2012	POST-AWARD SMALL BUSINESS PROGRAM REPRESENTATION
52.222-1	FEB 1997	NOTICE TO THE GOVERNMENT OF LABOR DISPUTES
52.222-2	JUL 1990	PAYMENT FOR OVERTIME PREMIUMS (a) The use of overtime is authorized under this contract if the overtime premium does not exceed zero or the overtime premium is paid work - -
52.222-3	JUN 2003	CONVICT LABOR
52.222-4	JUL 2005	CONTRACT WORK HOURS AND SAFETY STANDARDS ACT - OVERTIME COMPENSATION
52.222-21	FEB 1999	PROHIBITION OF SEGREGATED FACILITIES
52.222-26	MAR 2007	EQUAL OPPORTUNITY
52.222-35	SEP 2010	EQUAL OPPORTUNITY FOR SPECIAL DISABLED VETERANS, VETERANS OF THE VIETNAM ERA, AND OTHER ELIGIBLE VETERANS
52.222-36	OCT 2010	AFFIRMATIVE ACTION FOR WORKERS WITH DISABILITIES
52.222-37	SEP 2010	EMPLOYMENT REPORTS ON SPECIAL DISABLED VETERANS, VETERANS OF THE VIETNAM ERA, AND OTHER ELIGIBLE VETERANS
52.222-40	DEC 2010	NOTIFICATION OF EMPLOYEE RIGHTS UNDER THE NATIONAL LABOR RELATIONS ACT
52.222-41	NOV 2007	SERVICE CONTRACT ACT OF 1965

52.222-43	MAY 1989	FAIR LABOR STANDARDS ACT AND SERVICE CONTRACT ACT- PRICE ADJUSTMENT (MULTIPLE YEAR AND OPTION CONTRACTS)
52.222-50	FEB 2009	COMBATING TRAFFICKING IN PERSONS
52.222-54	JAN 2009	EMPLOYMENT ELIGIBILITY VERIFICATION
52.223-2	JUL 2012	AFFIRMATIVE PROCUREMENT OF BIO-BASED PRODUCTS UNDER SERVICE AND CONSTRUCTION CONTRACTS
52.223-3	JAN 1997	HAZARDOUS MATERIAL IDENTIFICATION AND MATERIAL SAFETY DATA; (ALTERNATE I) (JUL 1995) (b) None
52.223-5	MAY 2011	POLLUTION PREVENTION AND RIGHT-TO-KNOW INFORMATION; (ALTERNATE I) (MAY 2011) (ALTERNATE II) (MAY 2011)
52.223-6	MAY 2001	DRUG-FREE WORKPLACE
52.223-10	MAY 2011	WASTE REDUCTION PROGRAM
52.223-12	MAY 1995	REFRIGERATION EQUIPMENT AND AIR CONDITIONERS
52.223-15	DEC 2007	ENERGY EFFICIENCY IN ENERGY-CONSUMING PRODUCTS
52.223-17	MAY 2008	AFFIRMATIVE PROCUREMENT OF EPA-DESIGNATED ITEMS IN SERVICE AND CONSTRUCTION CONTRACTS
52.223-18	AUG 2011	ENCOURAGING CONTRACTOR POLICIES TO BAN TEXT MESSAGING WHILE DRIVING
52.223-19	MAY 2011	COMPLIANCE WITH ENVIRONMENTAL MANAGEMENT SYSTEMS
52.224-1	APR 1984	PRIVACY ACT NOTIFICATION
52.224-2	APR 1984	PRIVACY ACT
52.225-1	FEB 2009	BUY AMERICAN ACT - SUPPLIES

52.225-13	JUN 2008	RESTRICTIONS ON CERTAIN FOREIGN PURCHASES
52.227-1	DEC 2007	AUTHORIZATION AND CONSENT
52.227-2	DEC 2007	NOTICE AND ASSISTANCE REGARDING PATENT AND COPYRIGHT INFRINGEMENT
52.227-16	JUN 1987	ADDITIONAL DATA REQUIREMENTS
52.227-17	DEC 2007	RIGHTS IN DATA--SPECIAL WORKS
52.228-5	JAN 1997	INSURANCE-WORK ON A GOVERNMENT INSTALLATION
52.228-7	MAR 1996	INSURANCE – LIABILITY TO THIRD PERSONS
52.229-3	APR 2003	FEDERAL, STATE, AND LOCAL TAXES
52.230-2	MAY 2012	COST ACCOUNTING STANDARDS
52.230-6	JUN 2010	ADMINISTRATION OF COST ACCOUNTING STANDARD
52.232-8	FEB 2002	DISCOUNTS FOR PROMPT PAYMENT
52.232-9	APR 1984	LIMITATION ON WITHHOLDING OF PAYMENTS
52.232-17	OCT 2010	INTEREST
52.232-18	APR 1984	AVAILABILITY OF FUNDS
52.232-19	APR 1984	AVAILABILITY OF FUNDS FOR THE NEXT FISCAL YEAR
52.232-22	APR 1984	LIMITATION OF FUNDS
52.232-23	JAN 1986	ASSIGNMENT OF CLAIMS
52.232-25	OCT 2008	PROMPT PAYMENT; (ALTERNATE I) (FEB 2002)
52.232-33	OCT 2003	PAYMENT BY ELECTRONIC FUNDS TRANSFER – OTHER THAN CENTRAL CONTRACTOR REGISTRATION

52.233-1	JUL 2002	DISPUTES; (ALTERNATE I) (DEC 1991)
52.233-3	AUG 1996	PROTEST AFTER AWARD
52.233-3	AUG 1996	PROTEST AFTER AWARD; (ALTERNATE I) (JUN 1985)
52.233-4	OCT 2004	APPLICABLE LAW FOR BREACH OF CONTRACT CLAIM
52.237-2	APR 1984	PROTECTION OF GOVERNMENT BUILDINGS, EQUIPMENT, AND VEGETATION
52.237-3	JAN 1991	CONTINUITY OF SERVICES
52.239-1	AUG 1996	PRIVACY OR SECURITY
52.242-1	AUG 1984	NOTICE OF INTENT TO DISALLOW COSTS
52.242-3	MAY 2001	PENALTIES FOR UNALLOWABLE COSTS
52.242-13	JUL 1995	BANKRUPTCY
52.243-1	AUG 1987	CHANGES-FIXED PRICE (ALTERNATE II) (ALTERNATE V) (APR 1984)
52.243-6	APR 1984	CHANGE ORDER ACCOUNTING
52.243-7	APR 1984	NOTIFICATION OF CHANGES
52.244-2	OCT 2010	SUBCONTRACTS
52.244-5	DEC 1996	COMPETITION IN SUBCONTRACTING
52.244-6	DEC 2010	SUBCONTRACTS FOR COMMERCIAL ITEMS
52.245-1	APR 2012	GOVERNMENT PROPERTY (APR 2012)
52.245-2	MAY 2004	GOVERNMENT PROPERTY (FIXED PRICE CONTRACTS)
52.245-9	APR 2012	USE & CHARGES
52.246-24	FEB 1997	LIMITATION OF LIABILITY – HIGH VALUE ITEMS

52.246-25	FEB 1997	LIMITATION OF LIABILITY – SERVICES
52.247-63	JUN 2003	PREFERENCE FOR U.S. FLAG AIR CARRIERS
52.247-64	FEB 2006	PREFERENCE FOR PRIVATELY OWNED U.S. FLAG COMMERCIAL VESSELS
52.247-68	FEB 2006	REPORT OF SHIPMENT (RESHIP)
52.248-1	OCT 2010	VALUE ENGINEERING
52.249-2	MAY 2004	TERMINATION FOR CONVENIENCE OF THE GOVERNMENT (FIXED-PRICE)
52.249-6	MAY 2004	TERMINATION (COST-REIMBURSEMENT)
52.249-8	APR 1984	DEFAULT (FIXED-PRICE SUPPLY AND SERVICE)
52.249-14	APR 1984	EXCUSABLE DELAYS
52.251-1	APR 2012	GOVERNMENT SUPPLY SOURCES
52.253-1	JAN 1991	COMPUTER GENERATED FORMS

II. NASA FAR SUPPLEMENT (48 CFR CHAPTER 18) PROVISIONS

<u>CLAUSE NUMBER</u>	<u>DATE</u>	<u>TITLE</u>
1852.203-70	JUN 2001	DISPLAY OF INSPECTOR GENERAL HOTLINE POSTERS
1852.216-89	JUL 1997	ASSIGNMENT AND RELEASE FORMS
1852.219-74	SEP 1990	USE OF RURAL AREA SMALL BUSINESS
1852.219-75	MAY 1999	SMALL BUSINESS SUBCONTRACTING REPORTING
1852.219-77	MAY 2009	NASA MENTOR PROTÉGÉ PROGRAM
1852.219-79	MAY 2009	MENTOR REQUIREMENTS AND EVALUATION

1852.223-74	MAR 1996	DRUG AND ALCOHOL-FREE WORKPLACE
1852.228-75	OCT 1988	MINIMUM INSURANCE COVERAGE
1852.235-70	DEC 2006	CENTER FOR AEROSPACE INFORMATION
1852.237-70	DEC 1988	EMERGENCY EVACUATION PROCEDURES
1852.242-78	APR 2001	EMERGENCY MEDICAL SERVICES AND EVACUATION
1852.243-71	MAR 1997	SHARED SAVING

(End of Clauses Incorporated by Reference)

I.2 APPROVAL OF CONTRACT (FAR 52.204-1) (DEC 1989)

This contract is subject to the written approval of the JSC Procurement Officer and shall not be binding until so approved.

(End of clause)

I.3 UPDATES OF PUBLICLY AVAILABLE INFORMATION REGARDING RESPONSIBILITY MATTERS (FAR 52.209-9) (FEB 2012)

(a) The Contractor shall update the information in the Federal Awardee Performance and Integrity Information System (FAPIIS) on a semi-annual basis, throughout the life of the contract, by posting the required information in the Central Contractor Registration database via <https://www.acquisition.gov>.

(b) As required by section 3010 of the Supplemental Appropriations Act, 2010 (Pub. L. 111-212), all information posted in FAPIIS on or after April 15, 2011, except past performance reviews, will be publicly available. FAPIIS consists of two segments—

(1) The non-public segment, into which Government officials and the Contractor post information, which can only be viewed by—

(i) Government personnel and authorized users performing business on behalf of the Government; or

(ii) The Contractor, when viewing data on itself; and

(2) The publicly-available segment, to which all data in the non-public segment of FAPIIS is automatically transferred after a waiting period of 14 calendar days, except for—

(i) Past performance reviews required by subpart 42.15;

(ii) Information that was entered prior to April 15, 2011; or

(iii) Information that is withdrawn during the 14-calendar-day waiting period by the

Government official who posted it in accordance with paragraph (c)(1) of this clause.

(c) The Contractor will receive notification when the Government posts new information to the Contractor's record.

(1) If the Contractor asserts in writing within 7 calendar days, to the Government official who posted the information, that some of the information posted to the non-public segment of FAPIIS is covered by a disclosure exemption under the Freedom of Information Act, the Government official who posted the information must within 7 calendar days remove the posting from FAPIIS and resolve the issue in accordance with agency Freedom of Information procedures, prior to reposting the releasable information. The contractor must cite 52.209-9 and request removal within 7 calendar days of the posting to FAPIIS.

(2) The Contractor will also have an opportunity to post comments regarding information that has been posted by the Government. The comments will be retained as long as the associated information is retained, i.e., for a total period of 6 years. Contractor comments will remain a part of the record unless the Contractor revises them.

(3) As required by section 3010 of Pub. L. 111-212, all information posted in FAPIIS on or after April 15, 2011, except past performance reviews, will be publicly available.

(d) Public requests for system information posted prior to April 15, 2011, will be handled under Freedom of Information Act procedures, including, where appropriate, procedures promulgated under E.O. 12600.

(End of clause)

I.4 NOTIFICATION OF OWNERSHIP CHANGES (FAR 52.215-19) (OCT 1997)

a) The Contractor shall make the following notifications in writing:

(1) When the Contractor becomes aware that a change in its ownership has occurred, or is certain to occur, that could result in changes in the valuation of its capitalized assets in the accounting records, the Contractor shall notify the Administrative Contracting Officer (ACO) within 30 days.

(2) The Contractor shall also notify the ACO within 30 days whenever changes to asset valuations or any other cost changes have occurred or are certain to occur as a result of a change in ownership.

(b) The Contractor shall—

(1) Maintain current, accurate, and complete inventory records of assets and their costs;

(2) Provide the ACO or designated representative ready access to the records upon request;

(3) Ensure that all individual and grouped assets, their capitalized values, accumulated depreciation or amortization, and remaining useful lives are identified accurately before and after each of the Contractor's ownership changes; and

(4) Retain and continue to maintain depreciation and amortization schedules based on the asset records maintained before each Contractor ownership change.

(c) The Contractor shall include the substance of this clause in all subcontracts under this contract that meet the applicability requirement of FAR 15.408(k).

(End of clause)

I.5 ORDERING (FAR 52.216-18) (OCT 1995)

(a) Any supplies and services to be furnished under this contract shall be ordered by issuance of task orders by the individuals or activities designated in the Schedule. Such orders may be issued from **May 1, 2013** through **April 30, 2018**.

(b) All task orders are subject to the terms and conditions of this contract. In the event of conflict between a task order and this contract, the contract shall control.

(c) If mailed, a task order is considered "issued" when the Government deposits the order in the mail. Orders may be issued orally, by facsimile, or by electronic commerce methods only if authorized in the contract.

(End of clause)

I.6 ORDER LIMITATIONS (52.216-19) (OCT 1995)

(a) *Minimum order.* When the Government requires supplies or services covered by this contract in an amount of less than **\$25,000**, the Government is not obligated to purchase, nor is the Contractor obligated to furnish, those supplies or services under the contract.

(b) *Maximum order.* The Contractor is not obligated to honor -

(1) Any order for a single item in excess of **\$350,000,000**;

(2) Any order for a combination of items in excess of **\$350,000,000**; or

(3) A series of orders from the same ordering office within **30** days that together call for quantities exceeding the limitation in subparagraph (b)(1) or (2) of this section.

(c) If this is a requirements contract (*i.e.*, includes the Requirements clause at subsection 52.216-21 of the Federal Acquisition Regulation (FAR)), the Government is not required to order a part of any one requirement from the Contractor if that requirement exceeds the maximum-order limitations in paragraph (b) of this section.

(d) Notwithstanding paragraphs (b) and (c) of this section, the Contractor shall honor any order exceeding the maximum order limitations in paragraph (b), unless that order (or orders) is returned to the ordering office within 10 calendar days after issuance, with written notice stating the Contractor's intent not to ship the item (or items) called for and the reasons. Upon receiving this notice, the Government may acquire the supplies or services from another source.

(End of clause)

I.7 INDEFINITE QUANTITY (52.216-22) (OCT 1995)

(a) This is an indefinite-quantity contract for the supplies or services specified, and effective for the period stated, in the Schedule. The quantities of supplies and services specified in the Schedule are estimates only and are not purchased by this contract.

(b) Delivery or performance shall be made only as authorized by orders issued in accordance with the Ordering clause. The Contractor shall furnish to the Government, when and if ordered, the supplies or services specified in the Schedule up to and including the quantity designated in the Schedule as the "maximum." The Government shall order at least the quantity of supplies or services designated in the Schedule as the "minimum."

(c) Except for any limitations on quantities in the Order Limitations clause or in the Schedule, there is no limit on the number of orders that may be issued. The Government may issue orders requiring delivery to multiple destinations or performance at multiple locations.

(d) Any order issued during the effective period of this contract and not completed within that period shall be completed by the Contractor within the time specified in the order. The contract shall govern the Contractor's and Government's rights and obligations with respect to that order to the same extent as if the order were completed during the contract's effective period; provided, that the Contractor shall not be required to make any deliveries under this contract after **12 months after the contract end date**.

(End of clause)

I.8 NOTICE FOR PRICE EVALUATION ADJUSTMENT FOR SMALL DISADVANTAGED BUSINESS CONCERNS (FAR 52.219-23)(OCT 2008)

(a) *Definitions.* As used in this clause—

“Historically black college or university” means an institution determined by the Secretary of Education to meet the requirements of 34 CFR 608.2. For the Department of Defense (DoD), the National Aeronautics and Space Administration (NASA), and the Coast Guard, the term also includes any nonprofit research institution that was an integral part of such a college or university before November 14, 1986.

“Minority institution” means an institution of higher education meeting the requirements of Section 365(3) of the Higher Education Act of 1965 (20 U.S.C. 1067k), including a Hispanic-serving institution of higher education, as defined in Section 502(a) of the Act (20 U.S.C. 1101a).

“Small disadvantaged business concern” means an Offeror that represents, as part of its

offer, that it is a small business under the size standard applicable to this acquisition; and either—

- (1) It has received certification by the Small Business Administration as a small disadvantaged business concern consistent with 13 CFR Part 124, subpart B; and
 - (i) No material change in disadvantaged ownership and control has occurred since its certification;
 - (ii) Where the concern is owned by one or more disadvantaged individuals, the net worth of each individual upon whom the certification is based does not exceed \$750,000 after taking into account the applicable exclusions set forth at 13 CFR 124.104(c)(2); and
 - (iii) It is identified, on the date of its representation, as a certified small disadvantaged business concern in the database maintained by the Small Business Administration (PRO-Net).
 - (2) It has submitted a completed application to the Small Business Administration or a Private Certifier to be certified as a small disadvantaged business concern in accordance with 13 CFR Part 124, subpart B, and a decision on that application is pending, and that no material change in disadvantaged ownership and control has occurred since its application was submitted. In this case, in order to receive the benefit of a price evaluation adjustment, an Offeror must receive certification as a small disadvantaged business concern by the Small Business Administration prior to contract award; or
 - (3) Is a joint venture as defined in 13 CFR 124.1002(f).
- (b) Evaluation adjustment.
- (1) The Contracting Officer will evaluate offers by adding a factor of 10 percent to the price of all offers, except—
 - (i) Offers from small disadvantaged business concerns that have not waived the adjustment; and
 - (ii) An otherwise successful offer from a historically black college or university or minority institution.
 - (2) The Contracting Officer will apply the factor to a line item or a group of line items on which award may be made. The Contracting Officer will apply other evaluation factors described in the solicitation before application of the factor. The factor may not be applied if using the adjustment would cause the contract award to be made at a price that exceeds the fair market price by more than the factor in paragraph (b)(1) of this clause.
- (c) *Waiver of evaluation adjustment.* A small disadvantaged business concern may elect to waive the adjustment, in which case the factor will be added to its offer for evaluation purposes. The agreements in paragraph (d) of this clause do not apply to offers that waive the adjustment.
- (N/A) Offeror elects to waive the adjustment.
- (d) Agreements.
- (1) A small disadvantaged business concern, that did not waive the adjustment, agrees that in performance of the contract, in the case of a contract for—
 - (i) Services, except construction, at least 50 percent of the cost of personnel for contract performance will be spent for employees of the concern;
 - (ii) Supplies (other than procurement from a nonmanufacturer of such supplies), at least

- 50 percent of the cost of manufacturing, excluding the cost of materials, will be performed by the concern;
- (iii) General construction, at least 15 percent of the cost of the contract, excluding the cost of materials, will be performed by employees of the concern; or
 - (iv) Construction by special trade contractors, at least 25 percent of the cost of the contract, excluding the cost of materials, will be performed by employees of the concern.
- (2) A small disadvantaged business concern submitting an offer in its own name shall furnish in performing this contract only end items manufactured or produced by small disadvantaged business concerns in the United States or its outlying areas. This paragraph does not apply to construction or service contracts.

(End of clause)

I.9 STATEMENT OF EQUIVALENT RATES FOR FEDERAL HIRES (FAR 52.222-42) (MAY 1989)

In compliance with the Service Contract Act of 1965, as amended, and the regulations of the Secretary of Labor (29 CFR part 4), this clause identifies the classes of service employees expected to be employed under the contract and states the wages and fringe benefits payable to each if they were employed by the contracting agency subject to the provisions of 5 U.S.C. 5341 or 5332. This statement can be found in Attachment J.12, Wage Determination and is for informational purposes only, and should not be considered as a wage determination.

(End of clause)

I.10 NOTICE OF RADIOACTIVE MATERIALS (FAR 52.223-7) (JAN 1997)

- (a) The Contractor shall notify the Contracting Officer or designee, in writing, five days prior to the delivery of, or prior to completion of any servicing required by this contract of, items containing either (1) radioactive material requiring specific licensing under the regulations issued pursuant to the Atomic Energy Act of 1954, as amended, as set forth in Title 10 of the Code of Federal Regulations, in effect on the date of this contract, or (2) other radioactive material not requiring specific licensing in which the specific activity is greater than 0.002 microcuries per gram or the activity per item equals or exceeds 0.01 microcuries. Such notice shall specify the part or parts of the items which contain radioactive materials, a description of the materials, the name and activity of the isotope, the manufacturer of the materials, and any other information known to the Contractor which will put users of the items on notice as to the hazards involved (OMB No. 9000-0107).
- (b) If there has been no change affecting the quantity of activity, or the characteristics and composition of the radioactive material from deliveries under this contract or prior contracts, the Contractor may request that the Contracting Officer or designee waive the

notice requirement in paragraph (a) of this clause. Any such request shall-

- (1) Be submitted in writing;
 - (2) State that the quantity of activity, characteristics, and composition of the radioactive material have not changed; and
 - (3) Cite the contract number on which the prior notification was submitted and the contracting office to which it was submitted.
- (c) All items, parts, or subassemblies which contain radioactive materials in which the specific activity is greater than 0.002 microcuries per gram or activity per item equals or exceeds 0.01 microcuries, and all containers in which such items, parts or subassemblies are delivered to the Government shall be clearly marked and labeled as required by the latest revision of MIL-STD 129 in effect on the date of the contract.
- (d) This clause, including this paragraph (d), shall be inserted in all subcontracts for radioactive materials meeting the criteria in paragraph (a) of this clause.

(End of clause)

I.11 RIGHTS IN DATA-GENERAL (FAR 52.227-14) (DEC 2007) ALT II (DEC 2007)
(As modified by NASA FAR Supplement 1852.227-14)

(a) Definitions. As used in this clause--

“Computer database” or “database” means a collection of recorded information in a form capable of, and for the purpose of, being stored in, processed, and operated on by a computer. The term does not include computer software.

“Computer software”—

(1) Means

- (i) Computer programs that comprise a series of instructions, rules, routines, or statements, regardless of the media in which recorded, that allow or cause a computer to perform a specific operation or series of operations; and
- (ii) Recorded information comprising source code listings, design details, algorithms, processes, flow charts, formulas, and related material that would enable the computer program to be produced, created, or compiled.

(2) Does not include computer databases or computer software documentation.

“Computer software documentation” means owner’s manuals, user’s manuals, installation instructions, operating instructions, and other similar items, regardless of storage medium, that explain the capabilities of the computer software or provide instructions for using the software.

“Data” means recorded information, regardless of form or the media on which it may be recorded. The term includes technical data and computer software. The term does not include information incidental to contract administration, such as financial, administrative, cost or pricing, or management information.

“Form, fit, and function data” means data relating to items, components, or processes that are sufficient to enable physical and functional interchangeability, and data identifying

source, size, configuration, mating, and attachment characteristics, functional characteristics, and performance requirements. For computer software it means data identifying source, functional characteristics, and performance requirements but specifically excludes the source code, algorithms, processes, formulas, and flow charts of the software.

“Limited rights” means the rights of the Government in limited rights data as set forth in the Limited Rights Notice of subparagraph (g)(2) if included in this clause.

“Limited rights data” means data, other than computer software, that embody trade secrets or are commercial or financial and confidential or privileged, to the extent that such data pertain to items, components, or processes developed at private expense, including minor modifications.

“Restricted computer software” means computer software developed at private expense and that is a trade secret; is commercial or financial and is confidential or privileged; or is copyrighted computer software, including minor modifications of the computer software.

“Restricted rights,” as used in this clause, means the rights of the Government in restricted computer software, as set forth in a Restricted Rights Notice of paragraph (g) if included in this clause, or as otherwise may be provided in a collateral agreement incorporated in and made part of this contract, including minor modifications of such computer software.

“Technical data” means recorded information (regardless of the form or method of the recording) of a scientific or technical nature (including computer databases and computer software documentation). This term does not include computer software or financial, administrative, cost or pricing, or management data or other information incidental to contract administration. The term includes recorded information of a scientific or technical nature that is included in computer databases (See 41 U.S.C. 403(8)).

“Unlimited rights” means the right of the Government to use, disclose, reproduce, prepare derivative works, distribute copies to the public, and perform publicly and display publicly, in any manner and for any purpose, and to have or permit others to do so.

(b) Allocation of rights.

(1) Except as provided in paragraph (c) of this clause, the Government shall have unlimited rights in—

- (i) Data first produced in the performance of this contract;
- (ii) Form, fit, and function data delivered under this contract;
- (iii) Data delivered under this contract (except for restricted computer software) that constitute manuals or instructional and training material for installation, operation, or routine maintenance and repair of items, components, or processes delivered or furnished for use under this contract; and
- (iv) All other data delivered under this contract unless provided otherwise for limited rights data or restricted computer software in accordance with

paragraph (g) of this clause.

(2) The Contractor shall have the right to—

- (i) Assert copyright in data first produced in the performance of this contract to the extent provided in paragraph (c)(1) of this clause;
- (ii) Use, release to others, reproduce, distribute, or publish any data first produced or specifically used by the Contractor in the performance of this contract, unless provided otherwise in paragraph (d) of this clause;
- (iii) Substantiate use of, add or correct limited rights, restricted rights, or copyright notices and to take other appropriate action, in accordance with paragraphs (e) and (f) of this clause; and
- (iv) Protect from unauthorized disclosure and use those data that are limited rights data or restricted computer software to the extent provided in paragraph (g) of this clause.

(c) Copyright—

(1) Data first produced in the performance of this contract.

- (i) Unless provided otherwise in paragraph (d) of this clause, the Contractor may establish, without prior approval of the Contracting Officer, claim to copyright in scientific and technical articles based on or containing data first produced in the performance of this contract and published in academic, technical or professional journals, symposia proceedings or similar works. The prior, express written permission of the Contracting Officer is required to assert copyright in all other data first produced in the performance of this contract.
- (ii) When authorized to assert copyright to the data, the Contractor shall affix the applicable copyright notices of 17 U.S.C. 401 or 402, and acknowledgment of Government sponsorship (including contract number).
- (iii) For data other than computer software, the Contractor grants to the Government, and others acting on its behalf, a paid-up, nonexclusive, irrevocable worldwide license in such copyrighted data to reproduce, prepare derivative works, distribute copies to the public, and perform publicly and display publicly, by or on behalf of the Government. For computer software, the Contractor grants to the Government and others acting on its behalf, a paid-up nonexclusive, irrevocable worldwide license in such copyrighted computer software to reproduce, prepare derivative works, and perform publicly and display publicly (but not to distribute copies to the public) by or on behalf of the Government.

(2) Data not first produced in the performance of this contract. The Contractor shall not, without prior written permission of the Contracting Officer, incorporate in data delivered under this contract any data not first produced in the performance of this contract unless the Contractor—

- (i) Identifies the data; and
- (ii) Grants to the Government, or acquires on its behalf, a license of the same scope as set forth in subparagraph (c)(1) of this clause or; if such data are restricted computer software, the Government shall acquire a copyright license as set forth in subparagraph (g)(4) of this clause (if included in this contract) or

as otherwise provided in a collateral agreement incorporated in or made part of this contract.

- (3) Removal of copyright notices. The Government will not remove any authorized copyright notices placed on data pursuant to this paragraph (c), and will include such notices on all reproductions of the data.
- (d) Release, publication and use of data. The Contractor shall have the right to use, release to others, reproduce, distribute, or publish any data first produced or specifically used by the Contractor in the performance of this contract, except—
 - (1) As prohibited by Federal law or regulation (e.g., export control or national security laws or regulations);
 - (2) As expressly set forth in this contract; or
 - (3) If the Contractor receives or is given access to data necessary for the performance of this contract which contain restrictive markings, the Contractor shall treat the data in accordance with such markings unless otherwise specifically authorized otherwise in writing by the Contracting Officer.
 - (i) The Contractor agrees not to establish claim to copyright, publish or release to others any computer software first produced in the performance of this contract without the Contracting Officer's prior written permission.
 - (ii) If the Government desires to obtain copyright in computer software first produced in the performance of this contract and permission has not been granted as set forth in paragraph (d)(3)(i) of this clause, the Contracting Officer may direct the contractor to assert, or authorize the assertion of, claim to copyright in such data and to assign, or obtain the assignment of, such copyright to the Government or its designated assignee.
 - (iii) Whenever the word "establish" is used in this clause, with reference to a claim to copyright, it shall be construed to mean "assert".
- (e) Unauthorized marking of data.
 - (1) Notwithstanding any other provisions of this contract concerning inspection or acceptance, if any data delivered under this contract are marked with the notices specified in paragraph (g)(3) or (g)(4) of this clause and use of the notices is not authorized by this clause, or if such data bears any other restrictive or limiting markings not authorized by this contract, the Contracting Officer may at any time either return the data to the Contractor, or cancel or ignore the markings. However, pursuant to 41 U.S.C. 253d, the following procedures shall apply prior to canceling or ignoring the markings.
 - (i) The Contracting Officer will make written inquiry to the Contractor affording the Contractor 60 days from receipt of the inquiry to provide written justification to substantiate the propriety of the markings;
 - (ii) If the Contractor fails to respond or fails to provide written justification to substantiate the propriety of the markings within the 60-day period (or a longer time approved in writing by the Contracting Officer for good cause shown), the Government shall have the right to cancel or ignore the markings at any time after said period and the data will no longer be made subject to any disclosure prohibitions.
 - (iii) If the Contractor provides written justification to substantiate the propriety of

the markings within the period set in subdivision (e)(1)(i) of this clause, the Contracting Officer will consider such written justification and determine whether or not the markings are to be canceled or ignored. If the Contracting Officer determines that the markings are authorized, the Contractor will be so notified in writing. If the Contracting Officer determines, with concurrence of the head of the contracting activity, that the markings are not authorized, the Contracting Officer will furnish the Contractor a written determination, which determination shall become the final agency decision regarding the appropriateness of the markings unless the Contractor files suit in a court of competent jurisdiction within 90 days of receipt of the Contracting Officer's decision. The Government shall continue to abide by the markings under this paragraph (e)(1)(iii) until final resolution of the matter either by the Contracting Officer's determination becoming final (in which instance the Government will thereafter have the right to cancel or ignore the markings at any time and the data will no longer be made subject to any disclosure prohibitions), or by final disposition of the matter by court decision if suit is filed.

(2) The time limits in the procedures set forth in subparagraph (e)(1) of this clause may be modified in accordance with agency regulations implementing the Freedom of Information Act (5 U.S.C. 552) if necessary to respond to a request thereunder.

(3) Except to the extent the Government's action occurs as the result of final disposition of the matter by a court of competent jurisdiction, the Contractor is not precluded by paragraph (e) of this clause from bringing a claim, in accordance with the Disputes clause of this contract, that may arise as a result of the Government removing or ignoring authorized markings on data delivered under this contract.

(f) Omitted or incorrect markings.

(1) Data delivered to the Government without any restrictive markings shall be deemed to have been furnished with unlimited rights. The Government is not liable for the disclosure, use, or reproduction of such data.

(2) If the unmarked data has not been disclosed without restriction outside the Government, the Contractor may request, within 6 months (or a longer time approved by the Contracting Officer in writing for good cause shown) after delivery of such data, permission to have authorized notices placed on qualifying data at the Contractor's expense, and the Contracting Officer may agree to do so if the Contractor—

- (i) Identifies the data to which the omitted notice is to be applied;
- (ii) Demonstrates that the omission of the notice was inadvertent;
- (iii) Establishes that the use of the proposed notice is authorized; and
- (iv) Acknowledges that the Government has no liability for the disclosure, use, or reproduction of any data made prior to the addition of the notice or resulting from the omission of the notice.

(3) If data has been marked with an incorrect notice, the Contracting Officer may—

- (i) Permit correction of the notice at the Contractor's expense if the Contractor identifies the data and demonstrates that the correct notice is authorized, or
- (ii) Correct any incorrect notices.

- (g) Protection of limited rights data and restricted computer software.
- (1) The Contractor may withhold from delivery qualifying limited rights data or restricted computer software that are not data identified in paragraphs (b)(1)(i), (ii), and (iii) of this clause. As a condition to this withholding, the Contractor shall—
- (i) Identify the data being withheld; and
 - (ii) Furnish form, fit, and function data instead.
- (2) Limited rights data that are formatted as a computer database for delivery to the Government shall be treated as limited rights data and not restricted computer software.
- (3) Notwithstanding paragraph (g)(1) of this clause, the contract may identify and specify the delivery of limited rights data, or the Contracting Officer may require by written request the delivery of limited rights data that has been withheld or would otherwise be entitled to be withheld. If delivery of that data is required, the Contractor shall affix the following “Limited Rights Notice” to the data and the Government will treat the data, subject to the provisions of paragraphs (e) and (f) of this clause, in accordance with the notice:
- (i) Use (except for manufacture) by support service contractors.
 - (ii) Evaluation by nongovernment evaluators.
 - (iii) Use (except for manufacture) by other contractors participating in the Government’s program of which the specific contract is a part.
 - (iv) Emergency repair or overhaul work.
 - (v) Release to a foreign government, or its instrumentalities, if required to serve the interests of the U.S. Government, for information or evaluation, or for emergency repair or overhaul work by the foreign government.
- (h) Subcontracting. The Contractor shall obtain from its subcontractors all data and rights therein necessary to fulfill the Contractor’s obligations to the Government under this contract. If a subcontractor refuses to accept terms affording the Government such rights, the Contractor shall promptly notify the Contracting Officer of the refusal and shall not proceed with the subcontract award without authorization in writing from the Contracting Officer.
- (i) Relationship to patents or other rights. Nothing contained in this clause shall imply a license to the Government under any patent or be construed as affecting the scope of any license or other right otherwise granted to the Government.

(End of Clause)

I.12 CHANGES—COST-REIMBURSEMENT (FAR 52.243-2) (AUG 1987) (ALT II) (APR 1984)

- (a) The Contracting Officer may at any time, by written order, and without notice to the sureties, if any, make changes within the general scope of this contract in any one or more of the following:

- (1) Description of services to be performed.
- (2) Time of performance (i.e., hours of the day, days of the week, etc.).
- (3) Place of performance of the services.
- (4) Drawings, designs, or specifications when the supplies to be furnished are to be specially manufactured for the Government in accordance with the drawings, designs, or specifications.
- (5) Method of shipment or packing of supplies.
- (6) Place of delivery.
- (b) If any such change causes an increase or decrease in the estimated cost of, or the time required for, performance of any part of the work under this contract, whether or not changed by the order, or otherwise affects any other terms and conditions of this contract, the Contracting Officer shall make an equitable adjustment in the—
 - (1) Estimated cost, delivery or completion schedule, or both;
 - (2) Amount of any fixed fee; and
 - (3) Other affected terms and shall modify the contract accordingly.
- (c) The Contractor must assert its right to an adjustment under this clause within 30 days from the date of receipt of the written order. However, if the Contracting Officer decides that the facts justify it, the Contracting Officer may receive and act upon a proposal submitted before final payment of the contract.
- (d) Failure to agree to any adjustment shall be a dispute under the Disputes clause. However, nothing in this clause shall excuse the Contractor from proceeding with the contract as changed.
- (e) Notwithstanding the terms and conditions of paragraphs (a) and (b) of this clause, the estimated cost of this contract and, if this contract is incrementally funded, the funds allotted for the performance of this contract, shall not be increased or considered to be increased except by specific written modification of the contract indicating the new contract estimated cost and, if this contract is incrementally funded, the new amount allotted to the contract. Until this modification is made, the Contractor shall not be obligated to continue performance or incur costs beyond the point established in the Limitation of Cost or Limitation of Funds clause of this contract.

(End of clause)

I.13 CLAUSES INCORPORATED BY REFERENCE (FAR 52.252-2) (FEB 1998)

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at this/these address(es):

<http://www.arnet.gov/far/>

<http://www.hq.nasa.gov/office/procurement/regs/nfstoc.htm>

(End of clause)

I.14 SECURITY CLASSIFICATION REQUIREMENTS (NFS 1852.204-75) (SEP 1989)

Performance under this contract will involve access to and/or generation of classified information, work in a security area, or both, up to the level of SECRET. See FAR clause 52.204-2 (Security Requirements) in this contract and DD Form 254, Contract Security Classification Specification, Attachment J-14, DD 254 Department of Defense Contract Security Classification Specification.

(End of clause)

I.15 SECURITY REQUIREMENTS FOR UNCLASSIFIED INFORMATION TECHNOLOGY RESOURCES (NFS 1852.204-76) (JAN 2011)

- (a) The Contractor shall protect the confidentiality, integrity, and availability of NASA Electronic Information and IT resources and protect NASA Electronic Information from unauthorized disclosure.
- (b) This clause is applicable to all NASA Contractors and subcontractors that process, manage, access, or store unclassified electronic information, to include Sensitive But Unclassified (SBU) information, for NASA in support of NASA's missions, programs, projects and/or institutional requirements. Applicable requirements, regulations, policies, and guidelines are identified in the Applicable Documents List (ADL) provided as an attachment to the contract. The documents listed in the ADL can be found at: www.nasa.gov/offices/ocio/itsecurity/index.html. For policy information considered sensitive, the documents will be identified as such in the ADL and made available through the Contracting Officer.
- (c) Definitions
 - (1) IT resources means any hardware or software or interconnected system or subsystem of equipment, that is used to process, manage, access, or store electronic information.
 - (2) NASA Electronic Information is any data (as defined in the Rights in Data clause of this contract) or information (including information incidental to contract administration, such as financial, administrative, cost or pricing, or management information) that is processed, managed, accessed or stored on an IT system(s) in the performance of a NASA contract.
 - (3) IT Security Management Plan -- This plan shall describe the processes and procedures that will be followed to ensure appropriate security of IT resources that are developed, processed, or used under this contract.
 - (4) IT Security Plan -- this is a FISMA requirement; see the ADL for applicable requirements.

Within 30 days after contract award, the Contractor shall develop and deliver an IT Security Management Plan. The delivery address and approval authority will be included in DRD IT-02.

All Contractor personnel requiring physical or logical access to NASA IT resources must complete NASA's annual IT Security Awareness training. Refer to the IT Training policy located in the IT Security website at <https://itsecurity.nasa.gov/policies/index.html>.

- (d) The Contractor shall afford Government access to the Contractor's and subcontractors' facilities, installations, operations, documentation, databases, and personnel used in performance of the contract. Access shall be provided to the extent required to carry out a program of IT inspection (to include vulnerability testing), investigation and audit to safeguard against threats and hazards to the integrity, availability, and confidentiality of NASA Electronic Information or to the function of IT systems operated on behalf of NASA, and to preserve evidence of computer crime.
- (e) At the completion of the contract, the Contractor shall return all NASA information and IT resources provided to the Contractor during the performance of the contract in accordance with retention documentation available in the ADL. The Contractor shall provide a listing of all NASA Electronic information and IT resources generated in performance of the contract. At that time, the Contractor shall request disposition instructions from the Contracting Officer. The Contracting Officer will provide disposition instructions within 30 calendar days of the Contractor's request.
- (f) The Contracting Officer may waive specific requirements of this clause upon request of the Contractor. The Contractor shall provide all relevant information requested by the Contracting Officer to support the waiver request.

The Contractor shall insert this clause, including this paragraph in all subcontracts that process, manage, access or store NASA Electronic Information in support of the mission of the Agency.

(End of clause)

I.16 OMBUDSMAN (NFS 1852.215-84) (NOV 2011) (ALTERNATE I) (NOV 2011)

- (a) An ombudsman has been appointed to hear and facilitate the resolution of concerns from Offerors, potential Offerors, and contractors during the pre-award and post-award phases of this acquisition. When requested, the ombudsman will maintain strict confidentiality as to the source of the concern. The existence of the ombudsman is not to diminish the authority of the contracting officer, the Source Evaluation Board, or the selection official. Further, the ombudsman does not participate in the evaluation of proposals, the source selection process, or the adjudication of formal contract disputes. Therefore, before consulting with an ombudsman, interested parties must first address their concerns, issues, disagreements, and/or recommendations to the

contracting officer for resolution.

- (b) If resolution cannot be made by the contracting officer, interested parties may contact the installation ombudsman, whose name, address, telephone number, facsimile number, and e-mail address may be found at: http://prod.nais.nasa.gov/pub/pub_library/Omb.html. Concerns, issues, disagreements, and recommendations which cannot be resolved at the installation may be referred to the Agency ombudsman identified at the above URL. Please do not contact the ombudsman to request copies of the solicitation, verify offer due date, or clarify technical requirements. Such inquiries shall be directed to the Contracting Officer or as specified elsewhere in this document.

(End of clause)

I.17 NASA 8 PERCENT GOAL (NFS 1852.219-76) (JUL 1997)

(a) Definitions.

"Historically Black Colleges or University," as used in this clause, means an institution determined by the Secretary of Education to meet the requirements of 34 CFR Section 608.2. The term also includes any nonprofit research institution that was an integral part of such a college or university before November 14, 1986.

"Minority institutions," as used in this clause, means an institution of higher education meeting the requirements of section 1046(3) of the Higher Education Act of 1965 (20 U.S.C. 1135d-5(3)) which for the purposes of this clause includes a Hispanic-serving institution of higher education as defined in section 316(b)(1) of the Act (20 U.S.C. 1059c(b)(1)).

"Small disadvantaged business concern," as used in this clause, means a small business concern that (1) is at least 51 percent unconditionally owned by one or more individuals who are both socially and economically disadvantaged, or a publicly owned business having at least 51 percent of its stock unconditionally owned by one or more socially and economically disadvantaged individuals, and (2) has its management and daily business controlled by one or more such individuals. This term also means a small business concern that is at least 51 percent unconditionally owned by an economically disadvantaged Indian tribe or Native Hawaiian Organization, or a publicly owned business having at least 51 percent of its stock unconditionally owned by one or more of these entities, which has its management and daily business controlled by members of an economically disadvantaged Indian tribe or Native Hawaiian Organization, and which meets the requirements of 13 CFR 124.

"Women-owned small business concern," as used in this clause, means a small business concern (1) which is at least 51 percent owned by one or more women or, in the case of any publicly owned business, at least 51 percent of the stock of which is owned by one or more women, and (2) whose management and daily business

operations are controlled by one or more women.

- (b) The NASA Administrator is required by statute to establish annually a goal to make available to small disadvantaged business concerns, Historically Black Colleges and Universities, minority institutions, and women-owned small business concerns, at least 8 percent of NASA's procurement dollars under prime contracts or subcontracts awarded in support of authorized programs, including the space station by the time operational status is obtained.
- (c) The Contractor hereby agrees to assist NASA in achieving this goal by using its best efforts to award subcontracts to such entities to the fullest extent consistent with efficient contract performance.
- (d) Contractors acting in good faith may rely on written representations by their subcontractors regarding their status as small disadvantaged business concerns, Historically Black Colleges and Universities, minority institutions, and women-owned small business concerns.

(End of clause)

I.18 RESTRICTION ON FUNDING ACTIVITY WITH CHINA (PIC 12-01A)

- (a) Definition - "China" or "Chinese-owned company" means the People's Republic of China, any company owned by the People's Republic of China or any company incorporated under the laws of the People's Republic of China.
- (b) Public Laws 112-10, Section 1340(a) and 112-55, Section 539, restrict NASA from contracting to participate, collaborate, coordinate bilaterally in any way with China or a Chinese-owned company using funds appropriated on or after April 25, 2011. Contracts for commercial and non developmental items are exempted from the prohibition because they constitute purchase of goods or services that would not involve participation, collaboration, or coordination between the parties.
- (c) This contract may use restricted funding that was appropriated on or after April 25, 2011. The contractor shall not contract with China or Chinese-owned companies for any effort related to this contract except for acquisition of commercial and non-developmental items. If the contractor anticipates making an award to China or Chinese-owned companies, the contractor must contact the contracting officer to determine if funding on this contract can be used for that purpose.
- (d) Subcontracts - The contractor shall include the substance of this clause in all subcontracts made hereunder.

(End of clause)

I.19 ACCESS TO SENSITIVE INFORMATION (NFS 1852.237-72)(JUN 2005)

- (a) As used in this clause, “sensitive information” refers to information that a Contractor has developed at private expense, or that the Government has generated that qualifies for an exception to the Freedom of Information Act, which is not currently in the public domain, and which may embody trade secrets or commercial or financial information, and which may be sensitive or privileged.
- (b) To assist NASA in accomplishing management activities and administrative functions, the Contractor shall provide the services specified elsewhere in this contract.
- (c) If performing this contract entails access to sensitive information, as defined above, the Contractor agrees to--
 - (1) Utilize any sensitive information coming into its possession only for the purposes of performing the services specified in this contract, and not to improve its own competitive position in another procurement.
 - (2) Safeguard sensitive information coming into its possession from unauthorized use and disclosure.
 - (3) Allow access to sensitive information only to those employees that need it to perform services under this contract.
 - (4) Preclude access and disclosure of sensitive information to persons and entities outside of the Contractor's organization.
 - (5) Train employees who may require access to sensitive information about their obligations to utilize it only to perform the services specified in this contract and to safeguard it from unauthorized use and disclosure.
 - (6) Obtain a written affirmation from each employee that he/she has received and will comply with training on the authorized uses and mandatory protections of sensitive information needed in performing this contract.
 - (7) Administer a monitoring process to ensure that employees comply with all reasonable security procedures, report any breaches to the Contracting Officer, and implement any necessary corrective actions.
- (d) The Contractor will comply with all procedures and obligations specified in its Organizational Conflicts of Interest Mitigation Plan (DRD MGMT-12), which this contract incorporates as a compliance document.
- (e) The nature of the work on this contract may subject the Contractor and its employees

to a variety of laws and regulations relating to ethics, conflicts of interest, corruption, and other criminal or civil matters relating to the award and administration of Government contracts. Recognizing that this contract establishes a high standard of accountability and trust, the Government will carefully review the Contractor's performance in relation to the mandates and restrictions found in these laws and regulations. Unauthorized uses or disclosures of sensitive information may result in termination of this contract for default, or in debarment of the Contractor for serious misconduct affecting present responsibility as a Government Contractor.

- (f) The Contractor shall include the substance of this clause, including this paragraph (f), suitably modified to reflect the relationship of the parties, in all subcontracts that may involve access to sensitive information

(End of clause)

I.20 RELEASE OF SENSITIVE INFORMATION (NFS 1852.237-73) (JUN 2005)

- (a) As used in this clause, "Sensitive information" refers to information, not currently in the public domain, that the Contractor has developed at private expense, that may embody trade secrets or commercial or financial information, and that may be sensitive or privileged.
- (b) In accomplishing management activities and administrative functions, NASA relies heavily on the support of various service providers. To support NASA activities and functions, these service providers, as well as their subcontractors and their individual employees, may need access to sensitive information submitted by the Contractor under this contract. By submitting this proposal or performing this contract, the Contractor agrees that NASA may release to its service providers, their subcontractors, and their individual employees, sensitive information submitted during the course of this procurement, subject to the enumerated protections mandated by the clause at NFS 1852.237-72, Access to Sensitive Information.
- (c) (1) The Contractor shall identify any sensitive information submitted in support of this proposal or in performing this contract. For purposes of identifying sensitive information, the Contractor may, in addition to any other notice or legend otherwise required, use a notice similar to the following:

Mark the title page with the following legend:

“This proposal or document includes sensitive information that NASA shall not disclose outside the Agency and its service providers that support management activities and administrative functions. To gain access to this sensitive information, a service provider's contract must contain the clause at NFS 1852.237-72, Access to Sensitive Information. Consistent with this clause, the service provider shall not duplicate, use, or disclose the information in whole or in

part for any purpose other than to perform the services specified in its contract. This restriction does not limit the Government's right to use this information if it is obtained from another source without restriction. The information subject to this restriction is contained in pages [insert page number(s)].”

Mark each page of sensitive information the Contractor wishes to restrict with the following legend:

“Use or disclosure of sensitive information contained on this page is subject to the restriction on the title page of this proposal or document.”

- (2) The Contracting Officer shall evaluate the facts supporting any claim that particular information is "sensitive." This evaluation shall consider the time and resources necessary to protect the information in accordance with the detailed safeguards mandated by the clause at NFS 1852.237-72, Access to Sensitive Information. However, unless the Contracting Officer decides, with the advice of Center counsel, that reasonable grounds exist to challenge the Contractor's claim that particular information is sensitive, NASA and its service providers and their employees shall comply with all of the safeguards contained in paragraph (d) of this clause.
- (d) To receive access to sensitive information needed to assist NASA in accomplishing management activities and administrative functions, the service provider must be operating under a contract that contains the clause at NFS 1852.237-72, Access to Sensitive Information. This clause obligates the service provider to do the following:
 - (1) Comply with all specified procedures and obligations, including the Organizational Conflicts of Interest Mitigation Plan (DRD MGMT-12), which the contract has incorporated as a compliance document.
 - (2) Utilize any sensitive information coming into its possession only for the purpose of performing the services specified in its contract.
 - (3) Safeguard sensitive information coming into its possession from unauthorized use and disclosure.
 - (4) Allow access to sensitive information only to those employees that need it to perform services under its contract.
 - (5) Preclude access and disclosure of sensitive information to persons and entities outside of the service provider's organization.
 - (6) Train employees who may require access to sensitive information about their obligations to utilize it only to perform the services specified in its contract and to safeguard it from unauthorized use and disclosure.

- (7) Obtain a written affirmation from each employee that he/she has received and will comply with training on the authorized uses and mandatory protections of sensitive information needed in performing this contract.
- (8) Administer a monitoring process to ensure that employees comply with all reasonable security procedures, report any breaches to the Contracting Officer, and implement any necessary corrective actions.
- (e) When the service provider will have primary responsibility for operating an information technology system for NASA that contains sensitive information, the service provider's contract shall include the clause at NFS 1852.204-76, Security Requirements for Unclassified Information Technology Resources. The Security Requirements clause requires the service provider to implement an Information Technology Security Plan to protect information processed, stored, or transmitted from unauthorized access, alteration, disclosure, or use. Service provider personnel requiring privileged access or limited privileged access to these information technology systems are subject to screening using the standard National Agency Check (NAC) forms appropriate to the level of risk for adverse impact to NASA missions. The Contracting Officer may allow the service provider to conduct its own screening, provided the service provider employs substantially equivalent screening procedures.
- (f) This clause does not affect NASA's responsibilities under the Freedom of Information Act.
- (g) The Contractor shall insert this clause, including this paragraph (g); suitably modified to reflect the relationship of the parties, in all subcontracts that may require the furnishing of sensitive information.

(End of clause)

I.21 RIGHTS TO PROPOSAL DATA (TECHNICAL) (FAR 52.227-23) (Jun 1987)

Except for data contained on pages N/A, it is agreed that as a condition of award of this contract, and notwithstanding the conditions of any notice appearing thereon, the Government shall have unlimited rights (as defined in the "Rights in Data—General" clause contained in this contract) in and to the technical data contained in the proposal dated June 20, 2012, upon which this contract is based.

(End of clause)

I.22 PATENT RIGHTS—OWNERSHIP BY THE CONTRACTOR (FAR 52.227-11) (Dec 2007) (NFS 1852.227-11)

- (a) As used in this clause—

“Invention” means any invention or discovery that is or may be patentable or otherwise protectable under title 35 of the U.S. Code, or any variety of plant that is or may be protectable under the Plant Variety Protection Act (7 U.S.C. 2321, *et seq.*)

“Made” means—

- (1) When used in relation to any invention other than a plant variety, the conception or first actual reduction to practice of the invention; or
- (2) When used in relation to a plant variety, that the Contractor has at least tentatively determined that the variety has been reproduced with recognized characteristics.

“Nonprofit organization” means a university or other institution of higher education or an organization of the type described in section 501(c)(3) of the Internal Revenue Code of 1954 (26 U.S.C. 501(c)) and exempt from taxation under section 501(a) of the Internal Revenue Code (26 U.S.C. 501(a)), or any nonprofit scientific or educational organization qualified under a State nonprofit organization statute.

“Practical application” means to manufacture, in the case of a composition of product; to practice, in the case of a process or method; or to operate, in the case of a machine or system; and, in each case, under such conditions as to establish that the invention is being utilized and that its benefits are, to the extent permitted by law or Government regulations, available to the public on reasonable terms.

“Subject invention” means any invention of the Contractor made in the performance of work under this contract.

(b) Contractor’s rights.

(1) *Ownership.* The Contractor may retain ownership of each subject invention throughout the world in accordance with the provisions of this clause.

(2) *License.*

(i) The Contractor shall retain a nonexclusive royalty-free license throughout the world in each subject invention to which the Government obtains title, unless the Contractor fails to disclose the invention within the times specified in paragraph (c) of this clause. The Contractor’s license extends to any domestic subsidiaries and affiliates within the corporate structure of which the Contractor is a part, and includes the right to grant sublicenses to the extent the Contractor was legally obligated to do so at contract award. The license is transferable only with the written approval of the agency, except when transferred to the successor of that part of the Contractor’s business to which the invention pertains.

(ii) The Contractor’s license may be revoked or modified by the agency to the extent necessary to achieve expeditious practical application of the subject invention in a particular country in accordance with the procedures in FAR 27.302(i)(2) and 27.304-1(f).

(c) Contractor’s obligations.

(1) The Contractor shall disclose in writing each subject invention to the Contracting Officer within 2 months after the inventor discloses it in writing to Contractor personnel responsible for patent matters. The disclosure shall identify the inventor(s) and this contract under which the subject invention was made. It shall be sufficiently complete in technical detail to convey a clear understanding of the subject invention. The disclosure shall also identify any publication, on sale (*i.e.*, sale or offer for sale), or public use of the subject invention, or whether a manuscript describing the subject

invention has been submitted for publication and, if so, whether it has been accepted for publication. In addition, after disclosure to the agency, the Contractor shall promptly notify the Contracting Officer of the acceptance of any manuscript describing the subject invention for publication and any on sale or public use.

- (2) The Contractor shall elect in writing whether or not to retain ownership of any subject invention by notifying the Contracting Officer within 2 years of disclosure to the agency. However, in any case where publication, on sale, or public use has initiated the 1-year statutory period during which valid patent protection can be obtained in the United States, the period for election of title may be shortened by the agency to a date that is no more than 60 days prior to the end of the statutory period.
- (3) The Contractor shall file either a provisional or a nonprovisional patent application or a Plant Variety Protection Application on an elected subject invention within 1 year after election. However, in any case where a publication, on sale, or public use has initiated the 1-year statutory period during which valid patent protection can be obtained in the United States, the Contractor shall file the application prior to the end of that statutory period. If the Contractor files a provisional application, it shall file a non-provisional application within 10 months of the filing of the provisional application. The Contractor shall file patent applications in additional countries or international patent offices within either 10 months of the first filed patent application (whether provisional or non-provisional) or 6 months from the date permission is granted by the Commissioner of Patents to file foreign patent applications where such filing has been prohibited by a Secrecy Order.
- (4) The Contractor may request extensions of time for disclosure, election, or filing under paragraphs (c)(1), (c)(2), and (c)(3) of this clause.
- (5) The Contractor may use whatever format is convenient to disclose subject inventions required in subparagraph (c)(1). NASA prefers that the contractor use either the electronic or paper version of NASA Form 1679, Disclosure of Invention and New Technology (Including Software) to disclose subject inventions. Both the electronic and paper versions of NASA Form 1679 may be accessed at the electronic New Technology Reporting Web site <http://ntr.ndc.nasa.gov/>.
- (6) In addition to the above, the Contractor shall provide the New Technology Representative identified in this contract at 1852.227-72 the following:
 - (i) An interim new technology summary report every 12 months (or such longer period as the Contracting Officer may specify) from the date of the contract, listing all subject inventions required to be disclosed during the period or certifying that there were none.
 - (ii) A final new technology summary report, within 3 months after completion of the contracted work, listing all subject inventions or certifying that there were none.
 - (iii) Upon request, the filing date, serial number and title, a copy of the patent application, and patent number and issue date for any subject invention in any country in which the contractor has applied for patents.
 - (iv) An irrevocable power to inspect and make copies of the patent application file, by the Government, when a Federal Government employee is a coinventor.

(d) *Government's rights—*

- (1) *Ownership.* The Contractor shall assign to the agency, on written request, title to any

subject invention—

- (i) If the Contractor fails to disclose or elect ownership to the subject invention within the times specified in paragraph (c) of this clause, or elects not to retain ownership; provided, that the agency may request title only within 60 days after learning of the Contractor's failure to disclose or elect within the specified times.
 - (ii) In those countries in which the Contractor fails to file patent applications within the times specified in paragraph (c) of this clause; provided, however, that if the Contractor has filed a patent application in a country after the times specified in paragraph (c) of this clause, but prior to its receipt of the written request of the agency, the Contractor shall continue to retain ownership in that country.
 - (iii) In any country in which the Contractor decides not to continue the prosecution of any application for, to pay the maintenance fees on, or defend in reexamination or opposition proceeding on, a patent on a subject invention.
- (2) *License.* If the Contractor retains ownership of any subject invention, the Government shall have a nonexclusive, nontransferable, irrevocable, paid-up license to practice, or have practiced for or on its behalf, the subject invention throughout the world.
- (e) *Contractor action to protect the Government's interest.*
- (1) The Contractor shall execute or have executed and promptly deliver to the agency all instruments necessary to—
 - (i) Establish or confirm the rights the Government has throughout the world in those subject inventions in which the Contractor elects to retain ownership; and
 - (ii) Assign title to the agency when requested under paragraph (d) of this clause and to enable the Government to obtain patent protection and plant variety protection for that subject invention in any country.
 - (iii) The Contractor shall, through employee agreements or other suitable Contractor policy, require that its employees “will assign and do hereby assign” to the Contractor all right, title, and interest in any invention resulting or that may result from their performance of work under this Contract.
 - (2) The Contractor shall require, by written agreement, its employees, other than clerical and nontechnical employees, to disclose promptly in writing to personnel identified as responsible for the administration of patent matters and in the Contractor's format, each subject invention in order that the Contractor can comply with the disclosure provisions of paragraph (c) of this clause, and to execute all papers necessary to file patent applications on subject inventions and to establish the Government's rights in the subject inventions. The disclosure format should require, as a minimum, the information required by paragraph (c)(1) of this clause. The Contractor shall instruct such employees, through employee agreements or other suitable educational programs, as to the importance of reporting inventions in sufficient time to permit the filing of patent applications prior to U.S. or foreign statutory bars.
 - (3) The Contractor shall notify the Contracting Officer of any decisions not to file a non-provisional patent application, continue the prosecution of a patent application, pay maintenance fees, or defend in a reexamination or opposition proceeding on a patent, in any country, not less than 30 days before the expiration of the response or filing period required by the relevant patent office.
 - (4) The Contractor shall include, within the specification of any United States non-provisional patent or plant variety protection application and any patent or plant

variety protection certificate issuing thereon covering a subject invention, the following statement, “This invention was made with Government support under (identify the contract) awarded by (identify the agency). The Government has certain rights in the invention.”

- (f) *Reporting on utilization of subject inventions.* The Contractor shall submit, on request, periodic reports no more frequently than annually on the utilization of a subject invention or on efforts at obtaining utilization of the subject invention that are being made by the Contractor or its licensees or assignees. The reports shall include information regarding the status of development, date of first commercial sale or use, gross royalties received by the Contractor, and other data and information as the agency may reasonably specify. The Contractor also shall provide additional reports as may be requested by the agency in connection with any march-in proceeding undertaken by the agency in accordance with paragraph (h) of this clause. The Contractor also shall mark any utilization report as confidential/proprietary to help prevent inadvertent release outside the Government. As required by 35 U.S.C. 202(c)(5), the agency will not disclose that information to persons outside the Government without the Contractor’s permission.
- (g) *Preference for United States industry.* Notwithstanding any other provision of this clause, neither the Contractor nor any assignee shall grant to any person the exclusive right to use or sell any subject invention in the United States unless the person agrees that any products embodying the subject invention or produced through the use of the subject invention will be manufactured substantially in the United States. However, in individual cases, the requirement for an agreement may be waived by the agency upon a showing by the Contractor or its assignee that reasonable but unsuccessful efforts have been made to grant licenses on similar terms to potential licensees that would be likely to manufacture substantially in the United States, or that under the circumstances domestic manufacture is not commercially feasible.
- (h) *March-in rights.* The Contractor acknowledges that, with respect to any subject invention in which it has retained ownership, the agency has the right to require licensing pursuant to 35 U.S.C. 203 and 210(c), and in accordance with the procedures in 37 CFR 401.6 and any supplemental regulations of the agency in effect on the date of contract award.
- (i) *Special provisions for contracts with nonprofit organizations.* If the Contractor is a nonprofit organization, it shall—
- (1) Not assign rights to a subject invention in the United States without the written approval of the agency, except where an assignment is made to an organization that has as one of its primary functions the management of inventions, *provided*, that the assignee shall be subject to the same provisions as the Contractor;
 - (2) Share royalties collected on a subject invention with the inventor, including Federal employee co-inventors (but through their agency if the agency deems it appropriate) when the subject invention is assigned in accordance with 35 U.S.C. 202(e) and 37 CFR 401.10;
 - (3) Use the balance of any royalties or income earned by the Contractor with respect to

subject inventions, after payment of expenses (including payments to inventors) incidental to the administration of subject inventions for the support of scientific research or education; and

- (4) Make efforts that are reasonable under the circumstances to attract licensees of subject inventions that are small business concerns, and give a preference to a small business concern when licensing a subject invention if the Contractor determines that the small business concern has a plan or proposal for marketing the invention which, if executed, is equally as likely to bring the invention to practical application as any plans or proposals from applicants that are not small business concerns; *provided*, that the Contractor is also satisfied that the small business concern has the capability and resources to carry out its plan or proposal. The decision whether to give a preference in any specific case will be at the discretion of the Contractor.
- (5) Allow the Secretary of Commerce to review the Contractor's licensing program and decisions regarding small business applicants, and negotiate changes to its licensing policies, procedures, or practices with the Secretary of Commerce when the Secretary's review discloses that the Contractor could take reasonable steps to more effectively implement the requirements of paragraph (i)(4) of this clause.
- (j) For the purposes of this clause, communications between the Contractor and the Government shall be as specified in the NASA FAR Supplement at 1852.227-72, Designation of New Technology Representative and Patent Representative.
- (k) *Subcontracts.*
 - (1) The Contractor shall include the substance of this clause, including this paragraph (k), in all subcontracts for experimental, developmental, or research work to be performed by a small business concern or nonprofit organization.
 - (2) The Contractor shall include the clause in the NASA FAR Supplement at 1852.227-70, New Technology, suitably modified to identify the parties, in all subcontracts, regardless of tier, for experimental, developmental, research, design, or engineering work to be performed by other than a small business firm or nonprofit organization. At all tiers, the New Technology clause must be modified to identify the parties as follows: references to the Government are not changed, and in all references to the Contractor the subcontractor is substituted for the Contractor so that the subcontractor has all rights and obligations of the Contractor in the clause.
 - (3) At all tiers, the patent rights clause must be modified to identify the parties as follows: references to the Government are not changed, and the subcontractor has all rights and obligations of the Contractor in the clause. The Contractor shall not, as part of the consideration for awarding the subcontract, obtain rights in the subcontractor's subject inventions.
 - (4) In subcontracts, at any tier, the agency, the subcontractor, and the Contractor agree that the mutual obligations of the parties created by this clause constitute a contract between the subcontractor and the agency with respect to the matters covered by the clause; provided, however, that nothing in this paragraph is intended to confer any jurisdiction under the Contract Disputes Act in connection with proceedings under paragraph (h) of this clause.

(End of clause)

I.23 PROVIDING ACCELERATED PAYMENTS TO SMALL BUSINESS SUBCONTRACTORS (FAR 52.232-99) (AUG 2012) (DEVIATION)

This clause implements the temporary policy provided by OMB Policy Memorandum M-12-16, Providing Prompt Payment to Small Business Subcontractors, dated July 11, 2012.

- (a) Upon receipt of accelerated payments from the Government, the contractor is required to make accelerated payments to small business subcontractors to the maximum extent practicable after receipt of a proper invoice and all proper documentation from the small business subcontractor.
- (b) Include the substance of this clause, including this paragraph (b), in all subcontracts with small business concerns.
- (c) The acceleration of payments under this clause does not provide any new rights under the Prompt Payment Act.

(End of clause)

I.24 NOTIFICATION PRIOR TO ACQUIRING INFORMATION TECHNOLOGY SYSTEMS FROM ENTITIES OWNED, DIRECTED OR SUBSIDIZED BY THE PEOPLE'S REPUBLIC OF CHINA (NFS 1852.225-71) (JUNE 2013) (DEVIATION)

- (a) Definitions –

“Acquire” means procure with appropriated funds by and for the use of NASA through purchase or lease.

“Entity owned, directed or subsidized by the People’s Republic of China” means any organization incorporated under the laws of the People’s Republic of China.

“Information Technology (IT) System” means the combination of hardware components, software, and other equipment to make a system whose core purpose is to accomplish a data processing need such as the automatic acquisition, storage, analysis, evaluation, manipulation, management, movement, control, display, switching, interchange, transmission or reception of data. IT systems include ground systems in support of flight hardware. IT systems do not include—

- (i) Systems acquired by a contractor incidental to a contract;
- (ii) Imbedded information technology that is used as an integral part of the product, but the principal function of which is not the acquisition, storage, analysis, evaluation, manipulation, management, movement, control, display, switching, interchange, transmission, or reception of data or information. For example, HVAC (heating, ventilation, and air conditioning) equipment such as thermostats or temperature control devices,

and medical equipment where information technology is integral to its operation, are not information technology systems;

(iii) Services in support of IT systems, such as help desk services; or

(iv) Flight hardware, which includes aircraft, spacecraft, artificial satellites, launch vehicles, balloon systems, sounding rockets, on-board instrument and technology demonstration systems, and equipment operated on the International Space Station; as well as prototypes, and engineering or brass boards created and used to test, troubleshoot, and refine air- and spacecraft hardware, software and procedures.

- (a) Section 516 of the Consolidated and Further Continuing Appropriation Act, 2013 (Pub. L. 113-6), requires NASA's Office of the Chief Information Officer (OCIO) to assess the risk of cyber-espionage or sabotage of an information technology (IT) system that is produced, manufactured, or assembled by an entity owned, directed or subsidized by the People's Republic of China (PRC). The Government retains the right to reject any IT system tendered for acceptance under this Contract, without any further recourse by, or explanation to, the Contractor, if the Government determines the IT system, in whole or in part, presents an unacceptable risk to national security.
- (b) The Contractor shall obtain the approval of the Contracting Officer before acquiring any IT system(s) from entities owned, directed or subsidized by the People's Republic of China under this contract. Any Contractor request to use such items shall include adequate information for Government evaluation of the request, including—
- (1) A brief description of the item(s); and
 - (2) Vendor/manufacturer's company name and address;
- (c) The Contracting Officer will provide the information referenced in paragraph (c) to the NASA Office of the Chief Information Officer (OCIO) which will assess the risk of cyber-espionage or sabotage and make a determination if the acquisition of such system is in the national interest. Only items so approved shall be provided under the contract.

(End of clause)

I.25 NOTIFICATION PRIOR TO ACQUIRING INFORMATION TECHNOLOGY SYSTEMS FROM ENTITIES OWNED, DIRECTED OR SUBSIDIZED BY THE PEOPLE'S REPUBLIC OF CHINA (NFS 1852.225-71) (JUNE 2013)
(DEVIATION)

(a) Definitions –

“Acquire” means procure with appropriated funds by and for the use of NASA through purchase or lease.

“Entity owned, directed or subsidized by the People’s Republic of China” means any organization incorporated under the laws of the People’s Republic of China.

“Information Technology (IT) System” means the combination of hardware components, software, and other equipment to make a system whose core purpose is to accomplish a data processing need such as the automatic acquisition, storage, analysis, evaluation, manipulation, management, movement, control, display, switching, interchange, transmission or reception of data. IT systems include ground systems in support of flight hardware. IT systems do not include—

- (v) Systems acquired by a contractor incidental to a contract;
 - (vi) Imbedded information technology that is used as an integral part of the product, but the principal function of which is not the acquisition, storage, analysis, evaluation, manipulation, management, movement, control, display, switching, interchange, transmission, or reception of data or information. For example, HVAC (heating, ventilation, and air conditioning) equipment such as thermostats or temperature control devices, and medical equipment where information technology is integral to its operation, are not information technology systems;
 - (vii) Services in support of IT systems, such as help desk services; or
 - (viii) Flight hardware, which includes aircraft, spacecraft, artificial satellites, launch vehicles, balloon systems, sounding rockets, on-board instrument and technology demonstration systems, and equipment operated on the International Space Station; as well as prototypes, and engineering or brass boards created and used to test, troubleshoot, and refine air- and spacecraft hardware, software and procedures.
- (b) Section 516 of the Consolidated and Further Continuing Appropriation Act, 2013 (Pub. L. 113-6), requires NASA’s Office of the Chief Information Officer (OCIO) to assess the risk of cyber-espionage or sabotage of an information technology (IT) system that is produced, manufactured, or assembled by an entity owned, directed or subsidized by the People’s Republic of China (PRC). The Government retains the right to reject any IT system tendered for acceptance under this Contract, without any further recourse by, or explanation to, the Contractor, if the Government determines the IT system, in whole or in part, presents an unacceptable risk to national security.
- (c) The Contractor shall obtain the approval of the Contracting Officer before acquiring any IT system(s) from entities owned, directed or subsidized by the People’s Republic of China under this contract. Any Contractor request to use such items shall include adequate information for Government evaluation of the request, including—
- (1) A brief description of the item(s); and
 - (2) Vendor/manufacture’s company name and address;

- (d) The Contracting Officer will provide the information referenced in paragraph (c) to the NASA Office of the Chief Information Officer (OCIO) which will assess the risk of cyber-espionage or sabotage and make a determination if the acquisition of such system is in the national interest. Only items so approved shall be provided under the contract.

(End of clause)

I.26 SMALL BUSINESS SUBCONTRACTING PLAN- ALTERNATE II (OCT 2001)
FAR 52.219-9 (DEVIATION)

- (a) This clause does not apply to small business concerns.

- (b) *Definitions.* As used in this clause—

“Alaska Native Corporation (ANC)” means any Regional Corporation, Village Corporation, Urban Corporation, or Group Corporation organized under the laws of the State of Alaska in accordance with the Alaska Native Claims Settlement Act, as amended (43 U.S.C. 1601, *et seq.*) and which is considered a minority and economically disadvantaged concern under the criteria at 43 U.S.C. 1626(e)(1). This definition also includes ANC direct and indirect subsidiary corporations, joint ventures, and partnerships that meet the requirements of 43 U.S.C. 1626 (e)(2).

“Commercial item” means a product or service that satisfies the definition of commercial item in section 2.101 of the Federal Acquisition Regulation.

“Commercial plan” means a subcontracting plan (including goals) that covers the offeror’s fiscal year and that applies to the entire production of commercial items sold by either the entire company or a portion thereof (*e.g.*, division, plant, or product line).

“Electronic Subcontracting Reporting System (eSRS)” means the Governmentwide, electronic, web-based system for small business subcontracting program reporting. The eSRS is located at <http://www.esrs.gov>.

“Indian tribe” means any Indian tribe, band, group, pueblo, or community, including native villages and native groups (including corporations organized by Kenai, Juneau, Sitka, and Kodiak) as defined in the Alaska Native Claims Settlement Act (43 U.S.C.A. 1601 *et seq.*), that is recognized by the Federal Government as eligible for services from the Bureau of Indian Affairs in accordance with 25 U.S.C. 1452(c). This definition also includes Indian-owned economic enterprises that meet the requirements of 25 U.S.C. 1452(e).

“Individual contract plan” means a subcontracting plan that covers the entire contract period (including option periods), applies to a specific contract, and has goals that are based on the offeror’s planned subcontracting in support of the specific contract except that indirect costs incurred for common or joint purposes may be allocated on a prorated

basis to the contract.

“Master plan” means a subcontracting plan that contains all the required elements of an individual contract plan, except goals, and may be incorporated into individual contract plans, provided the master plan has been approved.

“Subcontract” means any agreement (other than one involving an employer-employee relationship) entered into by a Federal Government prime Contractor or subcontractor calling for supplies or services required for performance of the contract or subcontract.

(c) Proposals submitted in response to this solicitation shall include a subcontracting plan that separately addresses subcontracting with small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns. If the offeror is submitting an individual contract plan, the plan must separately address subcontracting with small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns with a separate part for the basic contract and separate parts for each option (if any). The plan shall be included in and made a part of the resultant contract. The subcontracting plan shall be negotiated within the time specified by the Contracting Officer. Failure to submit and negotiate a subcontracting plan shall make the offeror ineligible for award of a contract.

(d) The offeror’s subcontracting plan shall include the following:

(1) Goals, expressed in terms of percentages of total planned subcontracting dollars, for the use of small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns as subcontractors. The offeror shall include all subcontracts that contribute to contract performance, and may include a proportionate share of products and services that are normally allocated as indirect costs. In accordance with 43 U.S.C. 1626:

(i) Subcontracts awarded to an ANC or Indian tribe shall be counted towards the subcontracting goals for small business and small disadvantaged business (SDB) concerns, regardless of the size or Small Business Administration certification status of the ANC or Indian tribe.

(ii) Where one or more subcontractors are in the subcontract tier between the prime contractor and the ANC or Indian tribe, the ANC or Indian tribe shall designate the appropriate contractor(s) to count the subcontract towards its small business and small disadvantaged business subcontracting goals.

(A) In most cases, the appropriate Contractor is the Contractor that awarded the subcontract to the ANC or Indian tribe.

(B) If the ANC or Indian tribe designates more than one Contractor to count the subcontract toward its goals, the ANC or Indian tribe shall designate only a portion of the total subcontract award to each Contractor. The sum of the amounts designated to various Contractors cannot exceed the total value of the subcontract.

(C) The ANC or Indian tribe shall give a copy of the written designation to the Contracting Officer, the prime Contractor, and the subcontractors in between the prime Contractor and the ANC or Indian tribe within 30 days of the date of the subcontract award.

(D) If the Contracting Officer does not receive a copy of the ANC's or the Indian tribe's written designation within 30 days of the subcontract award, the Contractor that awarded the subcontract to the ANC or Indian tribe will be considered the designated Contractor.

(2) A statement of—

(i) Total dollars planned to be subcontracted for an individual contract plan; or the offeror's total projected sales, expressed in dollars, and the total value of projected subcontracts to support the sales for a commercial plan;

(ii) Total dollars planned to be subcontracted to small business concerns (including ANC and Indian tribes);

(iii) Total dollars planned to be subcontracted to veteran-owned small business concerns;

(iv) Total dollars planned to be subcontracted to service-disabled veteran-owned small business;

(v) Total dollars planned to be subcontracted to HUBZone small business concerns;

(vi) Total dollars planned to be subcontracted to small disadvantaged business concerns (including ANCs and Indian tribes); and

(vii) Total dollars planned to be subcontracted to women-owned small business concerns.

(3) A description of the principal types of supplies and services to be subcontracted, and an identification of the types planned for subcontracting to --

(i) Small business concerns,

(ii) Veteran-owned small business concerns;

- (iii) Service-disabled veteran-owned small business concerns;
- (iv) HUBZone small business concerns;
- (v) Small disadvantaged business concerns, and
- (vi) Women-owned small business concerns.

(4) A description of the method used to develop the subcontracting goals in paragraph (d)(1) of this clause.

(5) A description of the method used to identify potential sources for solicitation purposes (*e.g.*, existing company source lists, the Central Contractor Registration database (CCR), veterans service organizations, the National Minority Purchasing Council Vendor Information Service, the Research and Information Division of the Minority Business Development Agency in the Department of Commerce, or small, HUBZone, small disadvantaged, and women-owned small business trade associations). A firm may rely on the information contained in CCR as an accurate representation of a concern's size and ownership characteristics for the purposes of maintaining a small, veteran-owned small, service-disabled veteran-owned small, HUBZone small, small disadvantaged, and women-owned small business source list. Use of CCR as its source list does not relieve a firm of its responsibilities (*e.g.*, outreach, assistance, counseling, or publicizing subcontracting opportunities) in this clause.

(6) A statement as to whether or not the offeror included indirect costs in establishing subcontracting goals, and a description of the method used to determine the proportionate share of indirect costs to be incurred with --

- (i) Small business concerns (including ANC and Indian tribes);
- (ii) Veteran-owned small business concerns;
- (iii) Service-disabled veteran-owned small business concerns;
- (iv) HUBZone small business concerns;
- (v) Small disadvantaged business concerns (including ANC and Indian tribes);
and
- (vi) Women-owned small business concerns.

(7) The name of the individual employed by the offeror who will administer the offeror's subcontracting program, and a description of the duties of the individual.

(8) A description of the efforts the offeror will make to assure that small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns have an equitable opportunity to compete for subcontracts.

(9) Assurances that the offeror will include the clause of this contract entitled “Utilization of Small Business Concerns” in all subcontracts that offer further subcontracting opportunities, and that the offeror will require all subcontractors (except small business concerns) that receive subcontracts in excess of \$650,000 (\$1.5 million for construction of any public facility with further subcontracting possibilities) to adopt a plan similar to the plan that complies with the requirements of this clause.

(10) Assurances that the offeror will --

(i) Cooperate in any studies or surveys as may be required;

(ii) Submit periodic reports so that the Government can determine the extent of compliance by the offeror with the subcontracting plan;

(iii) Submit the Individual Subcontracting Report (ISR) and/or the Summary Subcontract Report (SSR), in accordance with the paragraph (l) of this clause using the Electronic Subcontracting Reporting System (eSRS) at <http://www.esrs.gov>. The reports shall provide information on subcontract awards to small business concerns (including ANCs and Indian tribes that are not small businesses), veteran-owned small business concerns, service-disabled veteran-owned small business concerns, HUBZone small business concerns, small disadvantaged business concerns (including ANCs and Indian tribes that have not been certified by the Small Business Administration as small disadvantaged businesses), women-owned small business concerns, and Historically Black Colleges and Universities and Minority Institutions. Reporting shall be in accordance with this clause, or as provided in agency regulations;

(iv) Ensure that its subcontractors with subcontracting plans agree to submit the ISR and/or the SSR using eSRS;

(v) Provide its prime contract number, its DUNS number, and the e-mail address of the offeror's official responsible for acknowledging receipt of or rejecting the ISRs, to all first-tier subcontractors with subcontracting plans so they can enter this information into the eSRS when submitting their ISRs; and

(vi) Require that each subcontractor with a subcontracting plan provide the prime contract number, its own DUNS number, and the e-mail address of the subcontractor's official responsible for acknowledging receipt of or rejecting the ISRs, to its subcontractors with subcontracting plans.

(11) A description of the types of records that will be maintained concerning procedures that have been adopted to comply with the requirements and goals in the plan, including establishing source lists; and a description of the offeror's efforts to locate small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns and award subcontracts to them. The records shall include at least the following

(on a plant-wide or company-wide basis, unless otherwise indicated):

(i) Source lists (*e.g.*, CCR), guides, and other data that identify small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns.

(ii) Organizations contacted in an attempt to locate sources that are small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, or women-owned small business concerns.

(iii) Records on each subcontract solicitation resulting in an award of more than \$150,000, indicating --

(A) Whether small business concerns were solicited and if not, why not;

(B) Whether veteran-owned small business concerns were solicited and, if not, why not;

(C) Whether service-disabled veteran-owned small business concerns were solicited and, if not, why not;

(D) Whether HUBZone small business concerns were solicited and, if not, why not;

(E) Whether small disadvantaged business concerns were solicited and if not, why not;

(F) Whether women-owned small business concerns were solicited and if not, why not; and

(G) If applicable, the reason award was not made to a small business concern.

(iv) Records of any outreach efforts to contact --

(A) Trade associations;

(B) Business development organizations;

(C) Conferences and trade fairs to locate small, HUBZone small, small disadvantaged, and women-owned small business sources; and

(D) Veterans service organizations.

(v) Records of internal guidance and encouragement provided to buyers through -
-

(A) Workshops, seminars, training, etc., and

(B) Monitoring performance to evaluate compliance with the program's requirements.

(vi) On a contract-by-contract basis, records to support award data submitted by the offeror to the Government, including the name, address, and business size of each subcontractor. Contractors having commercial plans need not comply with this requirement.

(e) In order to effectively implement this plan to the extent consistent with efficient contract performance, the Contractor shall perform the following functions:

(1) Assist small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns by arranging solicitations, time for the preparation of bids, quantities, specifications, and delivery schedules so as to facilitate the participation by such concerns. Where the Contractor's lists of potential small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business subcontractors are excessively long, reasonable effort shall be made to give all such small business concerns an opportunity to compete over a period of time.

(2) Provide adequate and timely consideration of the potentialities of small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns in all "make-or-buy" decisions.

(3) Counsel and discuss subcontracting opportunities with representatives of small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business firms.

(4) Confirm that a subcontractor representing itself as a HUBZone small business concern is identified as a certified HUBZone small business concern by accessing the Central Contractor Registration (CCR) database or by contacting SBA.

(5) Provide notice to subcontractors concerning penalties and remedies for misrepresentations of business status as small, veteran-owned small business, HUBZone small, small disadvantaged or women-owned small business for the purpose of obtaining a subcontract that is to be included as part or all of a goal contained in the Contractor's subcontracting plan.

(6) For all competitive subcontracts over the simplified acquisition threshold in which a small business concern received a small business preference, upon determination of the successful subcontract offeror, the Contractor must inform each unsuccessful small business subcontract offeror in writing of the name and location of the apparent successful offeror prior to award of the contract.

(f) A master plan on a plant or division-wide basis that contains all the elements required by paragraph (d) of this clause, except goals, may be incorporated by reference as a part of the subcontracting plan required of the offeror by this clause; provided --

(1) The master plan has been approved;

(2) The offeror ensures that the master plan is updated as necessary and provides copies of the approved master plan, including evidence of its approval, to the Contracting Officer; and

(3) Goals and any deviations from the master plan deemed necessary by the Contracting Officer to satisfy the requirements of this contract are set forth in the individual subcontracting plan.

(g) A commercial plan is the preferred type of subcontracting plan for contractors furnishing commercial items. The commercial plan shall relate to the offeror's planned subcontracting generally, for both commercial and Government business, rather than solely to the Government contract. Once the Contractor's commercial plan has been approved, the Government will not require another subcontracting plan from the same Contractor while the plan remains in effect, as long as the product or service being provided by the Contractor continues to meet the definition of a commercial item. A contractor with a commercial plan shall comply with the reporting requirements stated in paragraph (d)(10) of this clause by submitting one SSR in eSRS for all contracts covered by its commercial plan. This report shall be acknowledged or rejected in eSRS by the Contracting Officer who approved the plan. This report shall be submitted within 30 days after the end of the Government's fiscal year.

(h) Prior compliance of the offeror with other such subcontracting plans under previous contracts will be considered by the Contracting Officer in determining the responsibility of the offeror for award of the contract.

(i) A contract may have no more than one plan. When a modification meets the criteria in 19.702 for a plan, or an option is exercised, the goals associated with the modification or option shall be added to those in the existing subcontract plan.

(j) Subcontracting plans are not required from subcontractors when the prime contract contains the clause at 52.212-5, Contract Terms and Conditions Required to Implement Statutes or Executive Orders—Commercial Items, or when the subcontractor provides a commercial item subject to the clause at 52.244-6, Subcontracts for Commercial Items, under a prime contract.

(k) The failure of the Contractor or subcontractor to comply in good faith with—

(1) The clause of this contract entitled “Utilization Of Small Business Concerns;” or

(2) An approved plan required by this clause, shall be a material breach of the contract.

(l) The Contractor shall submit ISRs and SSRs using the web-based eSRS at <http://www.esrs.gov>. Purchases from a corporation, company, or subdivision that is an affiliate of the prime Contractor or subcontractor are not included in these reports. Subcontract award data reported by prime Contractors and subcontractors shall be limited to awards made to their immediate next-tier subcontractors. Credit cannot be taken for awards made to lower tier subcontractors unless the Contractor or subcontractor has been designated to receive a small business or small disadvantaged business credit from an ANC or Indian tribe. Only subcontracts involving performance in the United States or its outlying areas should be included in these reports with the exception of subcontracts under a contract awarded by the State Department or any other agency that has statutory or regulatory authority to require subcontracting plans for subcontracts performed outside the United States and its outlying areas.

(1) *ISR*. This report is not required for commercial plans. The report is required for each contract containing an individual subcontract plan.

(i) The report shall be submitted semi-annually during contract performance for the periods ending March 31 and September 30. A report is also required for each contract within 30 days of contract completion. Reports are due 30 days after the close of each reporting period, unless otherwise directed by the Contracting Officer. Reports are required when due, regardless of whether there has been any subcontracting activity since the inception of the contract or the previous reporting period.

(ii) When a subcontracting plan contains separate goals for the basic contract and each option, as prescribed by FAR 19.704(c), the dollar goal inserted on this report shall be the sum of the base period through the current option; for example, for a report submitted after the second option is exercised, the dollar goal would be the sum of the goals for the basic contract, the first option, and the second option.

(iii) The authority to acknowledge receipt or reject the ISR resides—

(A) In the case of the prime Contractor, with the Contracting Officer; and

(B) In the case of a subcontract with a subcontracting plan, with the entity that awarded the subcontract.

(2) *SSR*.

(i) Reports submitted under individual contract plans—

(A) This report encompasses all subcontracting under prime contracts and subcontracts with the awarding agency, regardless of the dollar value of the subcontracts.

(B) The report may be submitted on a corporate, company or subdivision (*e.g.* plant or division operating as a separate profit center) basis, unless otherwise directed by the agency.

(C) If a prime Contractor and/or subcontractor is performing work for more than one executive agency, a separate report shall be submitted to each executive agency covering only that agency's contracts, provided at least one of that agency's contracts is over \$650,000 (over \$1.5 million for construction of a public facility) and contains a subcontracting plan. For DoD, a consolidated report shall be submitted for all contracts awarded by military departments/agencies and/or subcontracts awarded by DoD prime Contractors. However, for construction and related maintenance and repair, a separate report shall be submitted for each DoD component.

(D) Except for DoD, the report shall be submitted annually for the twelve month period ending September 30. Reports are due 30 days after the close of each reporting period. For DoD, the report shall be submitted semi-annually for the six months ending March 31 and the twelve months ending September 30.

(E) Subcontract awards that are related to work for more than one executive agency shall be appropriately allocated.

(F) The authority to acknowledge or reject SSRs in eSRS, including SSRs submitted by subcontractors with subcontracting plans, resides with the Government agency awarding the prime contracts unless stated otherwise in the contract.

(ii) Reports submitted under a commercial plan—

(A) The report shall include all subcontract awards under the commercial plan in effect during the Government's fiscal year.

(B) The report shall be submitted annually, within thirty days after the end of the Government's fiscal year.

(C) If a Contractor has a commercial plan and is performing work for more than one executive agency, the Contractor shall specify the percentage of dollars attributable to each agency from which contracts for commercial items were received.

(D) The authority to acknowledge or reject SSRs for commercial plans resides with the Contracting Officer who approved the commercial plan.

(iii) All reports submitted at the close of each fiscal year (both individual and commercial plans) shall include a Year-End Supplementary Report for Small Disadvantaged Businesses. The report shall include subcontract awards, in whole dollars, to small disadvantaged business concerns by North American Industry Classification System (NAICS) Industry Subsector. If the data are not available when the year-end SSR is submitted, the prime Contractor and/or subcontractor shall submit the Year-End Supplementary Report for Small Disadvantaged Businesses within 90 days of submitting the year-end SSR. For a commercial plan, the Contractor may obtain from each of its subcontractors a predominant NAICS Industry Subsector and report all awards to that subcontractor under its predominant NAICS Industry Subsector.

(End of clause)

I.26 INFORMATION TECHNOLOGY SYSTEM SUPPLY CHAIN RISK ASSESSMENT (1852.239-72) (APR 2014) (DEVIATION)

(a) Definitions –

“Acquire” means procure with appropriated funds by and for the use of NASA through purchase or lease.

“Information Technology (IT) System” means the combination of hardware components, software, and other equipment to make a system whose core purpose is to accomplish a data processing need such as the automatic acquisition, storage, analysis, evaluation, manipulation, management, movement, control, display, switching, interchange, transmission or reception of data. IT systems include ground systems in support of flight hardware. IT systems do not include—

- (i) Systems acquired by a contractor incidental to a contract and not directly charged to the contract, such as a contractor's payroll and personnel management system;
- (ii) Systems that do not process NASA information, i.e., any data which is collected, generated, maintained, or controlled on behalf of the Agency.
- (iii) Imbedded information technology that is used as an integral part of the product, but the principal function of which is not the acquisition, storage, analysis, evaluation, manipulation, management, movement, control, display, switching, interchange, transmission, or reception of data or information. For example, HVAC (heating, ventilation, and air conditioning) equipment such as thermostats or temperature control devices, and medical equipment where information technology is integral to its operation;
- (iv) Services in support of IT systems, such as help desk services; or
- (v) Flight hardware, which includes aircraft, spacecraft, artificial satellites, launch vehicles, balloon systems, sounding rockets, on-board instrument and technology

demonstration systems, and equipment operated on the International Space Station; as well as prototypes, and engineering or brass boards created and used to test, troubleshoot, and refine air- and spacecraft hardware, software and procedures.

(b) Section 515 of the Consolidated and Further Continuing Appropriation Act, 2014 (Pub. L.113-76), requires NASA's Chief Information Officer (CIO) to review the contractor's supply chain for the risk of cyber-espionage or sabotage before acquiring any high-impact or moderate- impact IT systems. The NASA CIO will use the security categorization in the National Institute of Standards and Technology's (NIST) Federal Information Processing Standard Publication 199, "Standards for Security Categorization of Federal Information and Information Systems" to determine whether an IT system is high-impact or moderate-impact.

(c) The Contractor shall provide the following information for any IT system proposed to be provided:

(1) A brief description of the item(s);

(2) Vendor/manufacturer's company name and address; and

(3) If known, manufacturer's web site, and Commercial and Government Entity (CAGE) code.

(d) The Contracting Officer will provide the information referenced in paragraph (b) to the NASA CIO which will assess the risk of cyber-espionage or sabotage and make a determination if the acquisition of such system is in the national interest. Section 515 only allows NASA to acquire IT systems approved by the OCIO. NASA must reject any IT system the NASA CIO deems to be high impact or moderate impact unless it is determined the acquisition is in the national interest of the United States. The Government reserves the right to make this decision, without any further explanation to the Contractor. The Contracting Officer will advise the Contractor when any IT system represents an unacceptable risk to national security and may provide the Contractor with an opportunity to submit an alternative IT system.

(e) The Contractor shall insert the substance of this clause, including this paragraph (e), in all subcontracts involving the development or delivery of any information technology system.

(End of clause)

I.27 ESTABLISHING A MINIMUM WAGE FOR CONTRACTORS (52.222-99) (JUN 2014) (DEVIATION)

This clause implements Executive Order 13658, Establishing a Minimum Wage for Contractors, dated February 12, 2014, and OMB Policy Memorandum M-14-09, dated June 12, 2014.

(a) Each service employee, laborer, or mechanic employed in the United States (the 50 States and the District of Columbia) in the performance of this contract by the prime Contractor or any subcontractor, regardless of any contractual relationship which may be alleged to exist between the Contractor and service employee, laborer, or mechanic, shall be paid not less than the applicable minimum wage under Executive Order 13658. The

minimum wage required to be paid to each service employee, laborer, or mechanic performing work on this contract between January 1, 2015, and December 31, 2015, shall be \$10.10 per hour.

(b) The Contractor shall adjust the minimum wage paid under this contract each time the Secretary of Labor's annual determination of the applicable minimum wage under section 2(a) (ii) of Executive Order 13658 results in a higher minimum wage. Adjustments to the Executive Order minimum wage under section 2(a) (ii) of Executive Order 13658 will be effective for all service employees, laborers, or mechanics subject to the Executive Order beginning January 1 of the following year. The Secretary of Labor will publish annual determinations in the Federal Register no later than 90 days before such new wage is to take effect. The Secretary will also publish the applicable minimum wage on www.wdol.gov (or any successor website). The applicable published minimum wage is incorporated by reference into this contract.

(c) The Contracting Officer will adjust the contract price or contract unit prices under this clause only for the increase in labor costs resulting from the annual inflation increases in the Executive Order 13658 minimum wage beginning on January 1, 2016. The Contracting Officer shall consider documentation as to the specific costs and workers impacted in determining the amount of the adjustment.

(d) The Contractor Officer will not adjust the contract price under this clause for any costs other than those identified in paragraph (c) of this clause, and will not provide price adjustments under this clause that result in duplicate price adjustments with the respective clause of this contract implementing the Service Contract Labor Standards statute (formerly known as the Service Contract Act) or the Wage Rate Requirements (Construction) statute (formerly known as the Davis Bacon Act).

(e) The Contractor shall include the substance of this clause, including this paragraph (e) in all subcontracts.

(End of clause)

[END OF SECTION]

JSC Engineering, Technology and Science Contract

Data Requirements List (DRL) and Data Requirements Descriptions (DRD)

Attachment J-2

**Data Requirements List
and
Data Requirements Descriptions
(Based on JSC-STD-123)**

The following pages set out the documentation requirements of this contract, starting with a DRL, which is an index to the DRDs. Each DRD prescribes the required data product content, schedule, type, and other particulars for specific data submission requirements.

Subject to the Clause 52.227-14, Rights in Data - General, this document sets forth the data requirements in each Data Requirements Description (DRD) and shall govern that data required for this contract. The contractor shall furnish data defined by the DRDs listed on the Data Requirements List (DRL) by category of data. Such data shall be prepared, maintained, and delivered to NASA in accordance with the requirements set forth within this document. In cases where data requirements are covered by a Federal Acquisition Regulation (FAR) or NASA FAR Supplement (NFS) regulation or clause, the regulation will take precedence over this document, per FAR 52.215.33. NASA-Owned/Contractor-Held records shall be managed by the Contractor in accordance with Title 36 of the code of Federal Regulations, Chapter XII B, Records Management, and NMI 1440.6, NASA Records Management Program. The records shall be organized in accordance with the instructions in NHB 1442.1, NASA Uniform Files index, as applicable. The contractor shall disposition records and non-records in accordance with NHB 1441.1, NASA Retention Schedules, which has been approved by NASA and the National Archives and Records Administration (NARA). All questions on records management issues shall be directed through the Contracting Officer to the JSC Records Management Officer.

Documents included as applicable documents in the data requirements form a part of this document to the extent specified herein. References to documents other than applicable documents in the data requirements of this document may sometimes be utilized. These do not constitute a contractual obligation on the contractor. They are to be used only as a possible example or to provide related information to assist the contractor in developing a response to that particular data requirement.

DESCRIPTION

This document identifies and defines the requirements and data types for information and data required under this contract.

The Data Requirement Descriptions (DRDs), along with the Data Requirements List (DRL), define, by an individual Data Requirement, the information and data required for each deliverable document.

The data types are used to identify the approval and control required for each DRD. The Data Requirements List (DRL) is an index of all the DRDs by category and includes additional requirements for each DRD and the data types, as described below.

Documentation submitted pursuant to this clause may incorporate references to other current approved documentation, provided the references are adequate and include such identification elements as title, document number, and approval date (where applicable). However, if the pertinent information is of relatively minor size, the contractor shall incorporate the information itself, in lieu of using a reference. The contractor shall assure that any referenced information is readily available to appropriate users of the submitted document.

NUMBER OF COPIES AND DISTRIBUTION REQUIREMENTS

The contractor shall submit data product required in each DRD in compliance with the standard distribution list shown in Block 8 of the DRLs. Additional distribution shall be made as directed, in writing, by the Contracting Officer. The number of copies required will not exceed the limits set forth in Clause 1852.208-81, Restrictions on Printing and Duplicating, without prior Contracting Officer approval. Electronic Data Transmittal Forms will be used to confirm delivery of electronically resident DRD deliverables.

ELECTRONIC FORMAT

All the data requirements shall be delivered in the format as depicted in each DRD and compatible with JSC software loads.

FURTHER EXPLANATION OF DRL

Contract Start is defined as February 1, 2013.

Block 3 – Frequency of submittal/Maintenance:

<u>Code Description</u>	<u>Code Description</u>	<u>Code Description</u>
AD As Directed	DA Daily	RD As Released
AN Annually	DD Deferred Delivery	RT One Time and Revisions as Required
AR As Required	MO Monthly	SA Semi Annually
BE Biannually	OT One Time	TY Three Per Year
BM Bimonthly	PV Per Vehicle	UR Upon Request
BW Biweekly	QU Quarterly	WK Weekly

Block 4 – As of Date- If reports are of a recurring nature, an as of date will be included in this block (cutoff date and due date: e.g., 15/1 indicated input cutoff date of 15th and due date of 1st)..

Block 5 – 1st Submittal Date

Block 6 – Copies –

a. Type

Copies Type Code Description

E Electronic
HC Hard Copy

b Number – Number of copies required for each type of copy furnished.

Block 7 – Data Type

For the purpose of this clause, the following information/documentation types are applicable:

- (1) Type1 - Written approval -- Data and changes thereto requiring written approval by the NASA Office of Primary Responsibility (OPR) before formal release or implementation
- (2) Type2 - Mandatory submittal -- Data provided to NASA for coordination, information, review, and/or management control
- (3) Type3 - Submitted upon request -- Data prepared and retained under a specific contract to be made available to NASA upon request

Type 1 submissions shall be marked "TYPE 1 PRELIMINARY pending NASA approval or Type 1 APPROVED BY NASA, as appropriate." Additional special designations and deviations may be required on specific submissions in accordance with configuration management requirements.

Type 2 submissions shall be marked "TYPE 2 PRELIMINARY - RELEASE TARGET DATE, xx/xx/xx" or "TYPE 2 FINAL - NASA COMMENTS INCLUDED" or "TYPE 2 FINAL DOCUMENT," where NASA comments were not received.

NOTE: Documents submitted under this clause, even though directly (Type 1) or implicitly (Type 2) approved by NASA, shall not take precedence over the specifications as set out in Section C, Statement of Work.

The contractor shall normally deliver a complete revised Type 1 or Type 2 data requirement with NASA comments incorporated within 45 days of receipt of comments.

Type 3 submissions shall be marked "TYPE 3 DOCUMENT - FOR INFORMATION, SURVEILLANCE, REVIEW OR MANAGEMENT CONTROL".

Block 8 – Distribution

All electronic copies delivered to DDMS will be automatically distributed.

Block 9 – Remarks: Additional requirements, clarification or amplification of requirements from other blocks.

DRD GROUPS:

The DRDs are grouped into categories for clarity of purpose and ease of use. The groups are defined as follows:

- MGMT = Management – these documents address contract management processes and employee compensation
- IT = Information Technology – these documents address IT requirements.
- BP = Business Processes – these documents address non technical business processes.
- SMA = Safety and Mission Assurance – these documents include safety assessments, problem reporting, parts assessments and requirements. They also include parts, safety, quality, reliability, and configuration management plans.
- RV = Planning, requirements, and verification documentation – these are project planning documents, systems requirements, specifications, and verification.
- SW = Software Specific – these documents are software requirements, design, development, and testing documents.
- TD = Technical Products and Data Packages – these documents capture the results of design reviews, testing, and analysis.

Table 1 - DRL Reference

NUMBER	TITLE
SECTION 1.0	Contract Management
MGMT-01	Contract Management Plan
MGMT-02	Work Breakdown Structure and Dictionary
MGMT-03	Contract Management Report
MGMT-04	Staffing and Critical Skills Plan
MGMT-05	Contract Phase-In Plan
MGMT-06	Wage/Salary and Fringe Benefits Data
MGMT-07	Labor Relations Plan
MGMT-08	Notification of Potential Labor Dispute and Contingency Strike Plan
MGMT-09	Total Compensation Plan
MGMT-10	External Customer Plan
MGMT-11	Technology, Innovation, and Process Improvement Plan
MGMT-12	Organizational Conflict of Interest Mitigation Plan
MGMT-13	Small Business Subcontracting Plan and Reports
MGMT-14	Contract Closeout Plan
SECTION 1.1	Information Technology
IT-01	Information Technology (IT) Capital Planning and Investment Control (CPIC)
IT-02	Information Technology (IT) Security Plan and Reports
SECTION 1.2	Business Processes
BP-01	NASA Contractor Financial Management Report
BP-02	Data Management Plan
BP-03	Flights Products Configuration Management Plan
BP-04	RESERVED
BP-05	RESERVED
BP-06	Patent Rights Retention
BP-07	Reports Required for Logistics
BP-08	RESERVED
BP-09	Government Property Management Plan
BP-10	Re-procurement Data Package
SECTION 1.3	Safety and Mission Assurance
SMA-01	Quality Plan
SMA-02	Electrical, Electronic, and Electromechanical (EEE) Parts Control Plan
SMA-03	Safety and Health Plan
SMA-04	Safety and Health Program Self Evaluation
SMA-05	Lessons Learned Program Plan and Lessons Learned
SMA-06	Problem Reporting and Corrective Action (PRACA) for the JSC Government Furnished Equipment (GFE) and Flight Products
SMA-07	Government-Industry Data Exchange Program (GIDEP) and NASA Advisory Problem Data Sharing and Utilization Program Documentation and Reporting
SECTION 2.0	Planning, Requirements, and Verification Documentation
RV-01	Project Schedule
RV-02	Regular Status Report/Summary Review
RV-03	Project Technical Requirements Specification (PTRS)

NUMBER	TITLE
RV-04	Project Requirements and Verification Document (PRVD)
RV-05	Certification and Acceptance Requirements Document (CARD)
RV-06	Interface Control Document (ICD)
RV-07	End Item Specification
RV-08	Engineering Drawings and Model Files
RV-09	Flight Projects Authorization to Proceed Record
RV-10	Flight Products Verification and Validation Plan
RV-11	Flight Products Qualification Plan
RV-12	Flight Products Qualification Test Procedures
RV-13	Flight Products Acceptance Test Procedures
RV-14	Flight Products Qualification Report
SECTION 2.1	Software Requirements and Verification Documentation
SW-01	Software Requirements Document
SW-02	Software Development Plan
SW-03	Software Design Document
SW-04	Software Code
SW-05	Software Quality Assurance Plan
SW-06	Software Test Description
SW-07	Software Test Plan
SW-08	Version Description Document (Software and/or Firmware)
SECTION 2.2	Technical Products and Data Packages
TD-01	Flight Products System Requirements Review (SRR) Data Package
TD-02	Preliminary Design Review (PDR) Data Package
TD-03	Flight Products Critical Design Review (CDR) Data Package
TD-04	Acceptance Data Package (ADP)
TD-05	Limited Life Items List
TD-06	Certification Data Package
TD-07	Flight Products User's Guide
TD-08	Engineering Analysis
TD-09	Flight Products Verification and Validation Report
TD-10	Space Station Reliability and Maintainability Predictions Report
TD-11	Test Report
TD-12	Delivery and Acceptance Report
TD-13	Government Certification Approval Request (GCAR)
TD-14	Flight Products Workmanship Specification List
TD-15	Electrical, Electronic, and Electromechanical (EEE) Parts List and Analysis Report
TD-16	Space Station Hardware Failure Modes and Effects Analysis (FMEA) and Critical Items List (CIL)
TD-17	Space Station Payload Safety Data Package
TD-18	Space Station Hazard Reports (HRs)
TD-19	Risk Assessment Executive Summary Report
TD-20	Non Conformance Record (NCR)
TD-21	Flight Products Failure Analysis Report
TD-22	Engineering Design Change Proposal

a. Title of Contract, Project, SOW, etc. JSC Engineering and Technical Services (JETS) – Unrestricted		b. Contract/RFP No. NNJ13HA01C		c. DRL Date/Mod Date (mm/dd/yyyy) 12/01/2011	
<i>SECTION 1.0 – Contract Management</i>					
1. Line item no. MGMT-01	2. DRD Title Contract Management Plan	3. Frequency RT	4. As-of-date --	5. 1st subm. date Due with Proposal	6. Copies a. Type See Block 8 b. Number See Block 8
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request					
8. Distribution Electronic copy delivered to the Design Data Management System (DDMS).		9. Remarks - Annual review required. Block 3: Update at contract start + 30 days. Revisions shall be submitted within 45 days after major changes to the content of the JETS contract.			
1. Line item no. MGMT-02	2. DRD Title Work Breakdown Structure and Dictionary	3. Frequency RT	4. As-of-date --	5. 1st subm. date Due with Proposal	6. Copies a. Type See Block 8 b. Number See Block 8
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request					
8. Distribution Electronic copy delivered to the DDMS.		9. Remarks - Annual review required. Block 3: Revisions shall be submitted within 45 days after major changes to the content of the JETS contract.			
1. Line item no. MGMT-03	2. DRD Title Contract Management Report	3. Frequency MO	4. As-of-date 6/30/15	5. 1st subm. date 45 days after contract start date	6. Copies a. Type See Block 8 b. Number See Block 8
7. Data type: <input type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request					
8. Distribution Electronic copy delivered to the DDMS.		9. Remarks Block 3: Contract Management Report is due monthly. Contract Management Summary Review is due quarterly. Correction to a monthly Contract Management Report shall be identified and changes made, if applicable, in the subsequent monthly Contract Management Report.			

1. Line item no. MGMT-04	2. DRD Title Staffing and Critical Skills Plan	3. Frequency RT	4. As-of-date --	5. 1st subm. date Due with Proposal	6. Copies	
					a. Type See Block 8	b. Number See Block 8
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Electronic copy delivered to the DDMS.		9. Remarks - Annual review required. Block 3: First update 30 days after contract start date. Subsequent revisions as required.				

1. Line item no. MGMT-05	2. DRD Title Contract Phase-In Plan	3. Frequency OT	4. As-of-date --	5. 1st subm. date Due with Proposal	6. Copies	
					a. Type See Block 8	b. Number See Block 8
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Electronic copy delivered to the DDMS.		9. Remarks				

1. Line item no. MGMT-06	2. DRD Title Wage/Salary and Fringe Benefit Data	3. Frequency AN	4. As-of-date --	5. 1st subm. date 90 days after contract award	6. Copies	
					a. Type See Block 8	b. Number See Block 8
7. Data type: <input type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Electronic copy delivered to the DDMS.		9. Remarks - Three hardcopies and one electronic copy of each Collective Bargaining Agreement are required if organized labor is represented. - Changes shall be incorporated as required by change page or complete reissue. - Copies of all CBA must be provided within 30 days of ratification or modification to the Contracting Officer, and Contractor Industrial Relations Officer. Block 3: Subsequent submittals shall be annually, 90 days prior to the anniversary of the contract.				

1. Line item no. MGMT-07	2. DRD Title Labor Relations Plan	3. Frequency RT	4. As-of-date --	5. 1st subm. date Contract start date + 30 days	6. Copies	
					a. Type See Block 8	b. Number See Block 8
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Electronic copy delivered to the DDMS.		9. Remarks				
1. Line item no. MGMT-08	2. DRD Title Notification of Potential Labor Dispute and Contingency Strike Plan	3. Frequency AR	4. As-of-date --	5. 1st subm. date --	6. Copies	
					a. Type See Block 8	b. Number See Block 8
7. Data type: <input type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Electronic copy delivered to the DDMS.		9. Remarks - A Contingency Strike Plan must be submitted at contract start and updated if there is any indication of potential labor unrest or potential picketing activity - A notification of potential labor dispute must be delivered at first indication of potential labor unrest and 45 days prior to the expiration of any Collective Bargaining Agreement (CBA). A new notification is required for every instance. - Copies of all CBA must be provided within 30 days of ratification or modification to the Contracting Officer, and Contractor Industrial Relations Officer.				
1. Line item no. MGMT-09	2. DRD Title Total Compensation Plan	3. Frequency RT	4. As-of-date --	5. 1st subm. date Due with Proposal	6. Copies	
					a. Type See Block 8	b. Number See Block 8
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Electronic copy delivered to the DDMS.		9. Remarks Block 3: Final submittal due at contract start.				

1. Line item no. MGMT-10	2. DRD Title External Customer Plan	3. Frequency RT	4. As-of-date --	5. 1st subm. date See Block 9	6. Copies	
					a. Type See Block 8	b. Number See Block 8
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution 1) Electronic copy delivered to the DDMS. 2) Hard copy submitted to JSC Legal Office.		9. Remarks - Annual review required. Block 5: Initial partial submittal due with Proposal contains only data specified in the RFP. Initial complete submittal due 120 days after contract start date.				
1. Line item no. MGMT-11	2. DRD Title Technology, Innovations, and Process Improvement Plan	3. Frequency AR	4. As-of-date --	5. 1st subm. date Due with Proposal	6. Copies	
					a. Type See Block 8	b. Number See Block 8
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Electronic copy delivered to the DDMS.		9. Remarks Block 3: First update due 60 days after contract start.				
1. Line item no. MGMT-12	2. DRD Title Organizational Conflicts of Interest (OCI) Mitigation Plan	3. Frequency RT	4. As-of-date --	5. 1st subm. date Due with Proposal*	6. Copies	
					a. Type See Block 8	b. Number See Block 8
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution 1) Electronic copy delivered to the DDMS. 2) Hard copy submitted to JSC Legal Office.		9. Remarks - Annual review required. Block 3: Revisions shall be submitted within 30 days after identification of new potential OCI. Block 5: Submit along with Past Performance Volume.				
1. Line item no. MGMT-13	2. DRD Title Small Business Subcontracting Plan and Reports	3. Frequency RT	4. As-of-date --	5. 1st subm. date Due with Proposal	6. Copies	
					a. Type See Block 8	b. Number See Block 8
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Electronic copy delivered to the DDMS.		9. Remarks - Annual review required. Block 3: Update as requested by CO. Block 7: Plan is Data Type 1; Reports are Data Type 2.				

1. Line item no. MGMT-14	2. DRD Title Contract Close-Out Plan	3. Frequency OT	4. As-of-date --	5. 1st subm. date One year prior to contract end date	6. Copies	
					a. Type See Block 8	b. Number See Block 8
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Electronic copy delivered to the DDMS.		9. Remarks Block 5: One year prior to end date of contract, unless otherwise directed by the Contracting Officer.				
<i>SECTION 1.1 – Information Technology</i>						
1. Line item no. IT-01	2. DRD Title Information Technology (IT) Capital Planning and Investment Control (CPIC)	3. Frequency AN	4. As-of-date See Block 9	5. 1st subm. date Contract start	6. Copies	
					a. Type See Block 8	b. Number See Block 8
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Delivered to NASA Engineering Targeted Tools (ET2) database. Notification of delivery submitted to the DDMS.		9. Remarks Block 3 & 4: Annual CPIC data call during PPBE per OCIO schedule. Execution year spend plan annually prior to Fiscal Year start.				
1. Line item no. IT-02	2. DRD Title Information Technology (IT) Security Program Plan and Reports	3. Frequency See Block 9	4. As-of-date --	5. 1st subm. date Contract start	6. Copies	
					a. Type See Block 8	b. Number See Block 8
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Electronic copy delivered to the DDMS.		9. Remarks Block 3: One time for Plan, Annual for Reports Block 7: Plan is Data Type 1; Reports are Data Type 2				

SECTION 1.2 – Business Processes

1. Line item no. BP-01	2. DRD Title NASA Contractor Financial Management Report	3. Frequency MO	4. As-of-date See DRD	5. 1st subm. date Contract start + 30 days	6. Copies	
					a. Type See Block 8	b. Number See Block 8
7. Data type: <input type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution 1) Electronic copy delivered to the DDMS. 2) Electronic copy submitted to LE/Contract Business Management. 3) Electronic copy submitted to LF6/Cost Accounting.		9. Remarks Blocks 6b & 8: A Year-end Hard Copy submitted to LE/Contract Business Manager.				

1. Line item no. BP-02	2. DRD Title Data Management Plan	3. Frequency RT	4. As-of-date --	5. 1st subm. date Contract start + 30 days	6. Copies	
					a. Type See Block 8	b. Number See Block 8
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Electronic copy delivered to the DDMS.		9. Remarks - Annual review required. Block 3: Update as needed from annual review.				

1. Line item no. BP-03	2. DRD Title Flight Products Configuration Management Plan	3. Frequency RT	4. As-of-date	5. 1st subm. date Contract start + 45 days	6. Copies	
					a. Type See Block 8	b. Number See Block 8
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Electronic copy delivered to the DDMS.		9. Remarks Block 3: Update as required or as needed from annual review.				

1. Line item no. BP-04	2. DRD Title Financial Reporting Contractor-Held Property	3. Frequency MO	4. As-of-date --	5. 1st subm. date March 2014 Submission	6. Copies	
					a. Type See Block 8	b. Number See Block 8
7. Data type: <input type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Electronic delivery via the instructions within the DRD.		9. Remarks				

1. Line item no. BP-05	2. DRD Title RESERVED	3. Frequency	4. As-of-date	5. 1st subm. date	6. Copies	
					a. Type	b. Number
7. Data type: <input type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution		9. Remarks				
1. Line item no. BP-06	2. DRD Title Patent Rights Retention	3. Frequency See Block 9	4. As-of-date	5. 1st subm. date Contract start + 12 months	6. Copies	
					a. Type See Block 8	b. Number See Block 8
7. Data type: <input type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Electronic copy delivered to the DDMS.		9. Remarks Block 3: As required by the DRD				
1. Line item no. BP-07	2. DRD Title Reports Required for Logistics	3. Frequency See Block 9	4. As-of-date --	5. 1st subm. date See Block 9	6. Copies	
					a. Type See Block 8	b. Number See Block 8
7. Data type: <input type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution		9. Remarks				
1) Electronic copy delivered to the DDMS. 2) Electronic copies of items 1-3 and 5 submitted as required by individual report 3) Hard copy of item 4 only submitted to the Supply and Equipment Management Office (SEMO).		1. Reports of Personnel Property Management Operations: 3/25 and 9/25.* 2. Analysis of Fixed Inventory Assets: 3/25 and 9/25.* 3. Physical Inventory of Materials Annual Report: 9/25. 4. Quarterly Report of contractor-acquired material: 15 days after the end of fiscal quarters.** 5. Annual report of Exchange/Sale: 15 days after the end of the Government Fiscal Year. * Initial reports shall be delivered by 9/25/2013 and semiannually (every six months) thereafter. ** The delivery of the first quarterly report shall be due on or before 7/15/2013.				
1. Line item no. BP-08	2. DRD Title RESERVED	3. Frequency	4. As-of-date --	5. 1st subm. date	6. Copies	
					a. Type	b. Number
7. Data type: <input type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution		9. Remarks				

1. Line item no. BP-09	2. DRD Title Government Property Management Plan	3. Frequency RT	4. As-of-date --	5. 1st subm. date Due with Proposal	6. Copies	
					a. Type See Block 8	b. Number See Block 8
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Electronic copy delivered to the DDMS.		9. Remarks Block 3: First update plan due at contract start + 30 days. Revisions shall be submitted within 45 days after major changes to the content of the JETS contract. Update as needed from annual review.				

1. Line item no. BP-10	2. DRD Title Re-procurement Data Package	3. Frequency OT	4. As-of-date --	5. 1st subm. date See block 9	6. Copies	
					a. Type See Block 8	b. Number See Block 8
7. Data type: <input type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Electronic copy delivered to the DDMS.		9. Remarks Block 5: Initial package due 1 year prior to contract end or at the Contracting Officer's direction. Final package due at end of period of performance: submission of current version of all models, tools and supporting documentation which have been updated since initial submission.				

SECTION 1.3 – Safety and Mission Assurance

1. Line item no. SMA-01	2. DRD Title Quality Plan	3. Frequency RT	4. As-of-date --	5. 1st subm. date Due with Proposal	6. Copies	
					a. Type See Block 8	b. Number See Block 8
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution 1) Electronic copy delivered to the DDMS.		9. Remarks Block 3: Update as requested by the COTR.				

1. Line item no. SMA-02	2. DRD Title Electrical, Electronic, and Electromechanical (EEE) Parts Control Plan	3. Frequency RT	4. As-of-date --	5. 1st subm. date Contract start + 30 days	6. Copies	
					a. Type See Block 8	b. Number See Block 8
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Electronic copy delivered to the DDMS.		9. Remarks Block 3: Update as requested by the COTR.				

1. Line item no. SMA-03	2. DRD Title Safety and Health Plan	3. Frequency RT	4. As-of-date --	5. 1st subm. date Due with Proposal	6. Copies	
					a. Type See Block 8	b. Number See Block 8
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution 1) Electronic copy delivered to the DDMS.		9. Remarks - Review annually. Block 3: Update as requested by the COTR or as needed by the annual review.				

1. Line item no. SMA-04	2. DRD Title Safety and Health Program Self Evaluation	3. Frequency AN	4. As-of-date September 30 th	5. 1st subm. date Contract start + 365 days	6. Copies	
					a. Type See Block 8	b. Number See Block 8
7. Data type: <input type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution 1) Electronic copy delivered to the DDMS. 2) Hard copy submitted to NS1/Chief, JSC Safety and Test Operations Division (2 copies). 3) Hard copy submitted to JSC Occupational Health Officer. 4) Hard copy submitted to JSC Emergency Preparedness Office.		9. Remarks Roster of Terminated Employees – hard copy submitted to JSC Occupational Health Officer and electronic copy delivered to DDMS.				

1. Line item no. SMA-05	2. DRD Title Lessons Learned Program Plan and Lessons Learned	3. Frequency See Block 9	4. As-of-date --	5. 1st subm. date See Block 9	6. Copies	
					a. Type See Block 8	b. Number See Block 8
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution <ul style="list-style-type: none"> Plan: Deliver to DDMS. Lesson Learned: Deliver to DDMS and NASA Lessons Learned database per instruction in DRD. 		9. Remarks Block 3: Lessons Learned Plan: One time delivery. Lessons learned: As required, within 30 days of triggering event or completion of investigation or hazard analysis/evaluation. Block 5: Lessons learned plan: Contract start + 60 days. Block 7: Data type 1 for Plan, Data type 2 for Lessons				
1. Line item no. SMA-06	2. DRD Title Problem Reporting and Corrective Action (PRACA) for the JSC Government Furnished Equipment (GFE) and Flight Products	3. Frequency RD	4. As-of-date --	5. 1st subm. date See DRD	6. Copies	
					a. Type See Block 8	b. Number See Block 8
7. Data type: <input type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution E-mail to jsc-gfepraca@mail.nasa.gov .		9. Remarks				
1. Line item no. SMA-07	2. DRD Title Government-Industry Data Exchange Program (GIDEP) and NASA Advisory Problem Data Sharing and Utilization Program Documentation and Reporting	3. Frequency AR	4. As-of-date --	5. 1st subm. date See Block 9	6. Copies	
					a. Type See Block 8	b. Number See Block 8
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Implementation Procedures: 1) Deliver to the DDMS. 2) Deliver to NT4/JSC GIDEP/NASA Advisory Coordinator NASA Advisories: E-mail JF 1159 to the JSC NASA-Advisory/GIDEP Coordinator at jsc-jscadvco@mail.nasa.gov Status and Disposition Data: Electronically delivered to the JSC NASA Advisory/GIDEP Documents Status and Tracking System		9. Remarks 1) Contractor and sub-tier Implementation Procedure: Contract start + 60 days. 2) Release of GIDEP documents: in compliance with GIDEP Operations Manual and Policy. 3) Release of NASA Advisories: in compliance with NASA policy. 4) Problem data assessments: 30 days after receipt of the problem data. 5) Milestone/mission support: as required to support the milestone or mission events. 6) Cost data: as required for special problems involving criminal investigations. Block 7: Data type 1 for Procedure, Data type 2 for other reporting documentations.				

SECTION 2.0 – Planning, Requirements and Verification Documentation

1. Line item no. RV-01	2. DRD Title Project Schedule	3. Frequency RT	4. As-of-date --	5. 1st subm. date Per direction in Task Order	6. Copies	
					a. Type See Block 8	b. Number See Block 8
7. Data type: <input type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks				
1. Line item no. RV-02	2. DRD Title Regular Status Report/Summary Review	3. Frequency AD	4. As-of-date --	5. 1st subm. date Per direction in Task Order	6. Copies	
					a. Type See Block 8	b. Number See Block 8
7. Data type: <input type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks				
1. Line item no. RV-03	2. DRD Title Project Technical Requirements Specification (PTRS)	3. Frequency AD	4. As-of-date --	5. 1st subm. date Per direction in Task Order	6. Copies	
					a. Type See Block 8	b. Number See Block 8
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks				
1. Line item no. RV-04	2. DRD Title Project Requirements and Verification Documentation (PRVD)	3. Frequency AD	4. As-of-date --	5. 1st subm. date Per direction in Task Order	6. Copies	
					a. Type See Block 8	b. Number See Block 8
7. Data type: <input type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks				

1. Line item no. RV-05	2. DRD Title Certification and Acceptance Requirements Document (CARD)	3. Frequency AD	4. As-of-date --	5. 1st subm. date See Block 9	6. Copies	
					a. Type See Block 8	b. Number See Block 8
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks Block 5: Requirements and Verification Plans submit at CDR. Submit with evidence of verifications at SAR.				

1. Line item no. RV-06	2. DRD Title Interface Control Document (ICD)	3. Frequency See Block 9	4. As-of-date --	5. 1st subm. date See Block 9	6. Copies	
					a. Type See Block 8	b. Number See Block 8
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks Block 3: Update as directed or as required through the appropriate Flight Product configuration control processes. An up-to-date revision is required at Critical Design Reviews and a final revision is required at flight product acceptance. Block 5: Initial version at the Preliminary Design Review or as directed in Task Order.				

1. Line item no. RV-07	2. DRD Title End Item Specification	3. Frequency RT	4. As-of-date --	5. 1st subm. date See Block 9	6. Copies	
					a. Type See Block 8	b. Number See Block 8
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks Block 5: At PDR or as directed in Task Order.				

1. Line item no. RV-08	2. DRD Title Engineering Drawings and Model Files	3. Frequency AR	4. As-of-date --	5. 1st subm. date --	6. Copies	
					a. Type See Block 8	b. Number See Block 8
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution 1) Flight engineering and CAD models: Reference JPR 8500.4 for submittal and approval process. 2) Facility and other non-flight engineering and CAD models: As specified in Task Order or in native format to DDMS.		9. Remarks Block 7: Data Type 1: NASA CAGE Code (Written Approval) Data Type 2: Contractor CAGE Code (Mandatory Submittal) - Updated as required prior to Critical Design Reviews (CDRs). All updates are submitted for approval by the appropriate configuration control board, prior to obtaining authorization after the CDR.				

1. Line item no. RV-09	2. DRD Title Flight Projects Authorization to Proceed Record	3. Frequency AR	4. As-of-date --	5. 1st subm. date See Block 9	6. Copies	
					a. Type See Block 8	b. Number See Block 8
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution 1) Electronic copy delivered to the DDMS.		9. Remarks Block 5: Submitted within 90 days after PDR or as defined in the Task Order.				

1. Line item no. RV-10	2. DRD Title Flight Products Verification and Validation Plan	3. Frequency AR	4. As-of-date --	5. 1st subm. date See Block 9	6. Copies	
					a. Type See Block 8	b. Number See Block 8
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks Block 5: At PDR or as directed in the Task Order. Block 7: Data Type 1: Plan. Data Type 2: Results.				

1. Line item no. RV-11	2. DRD Title Flight Products Qualification Plan	3. Frequency AR	4. As-of-date --	5. 1st subm. date See Block 9	6. Copies	
					a. Type See Block 8	b. Number See Block 8
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks Block 5: At CDR or as directed in the Task Order.				

1. Line item no. RV-12	2. DRD Title Flight Products Qualification Test Procedures	3. Frequency RT	4. As-of-date --	5. 1st subm. date See Block 9	6. Copies	
					a. Type See Block 8	b. Number See Block 8
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks Block 5: One month before initiation of formal Qualification testing.				

1. Line item no. RV-13	2. DRD Title Flight Products Acceptance Test Procedures	3. Frequency AR	4. As-of-date --	5. 1st subm. date See Block 9	6. Copies	
					a. Type See Block 8	b. Number See Block 8
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks Block 5: One month before initiation of formal Acceptance testing.				

1. Line item no. RV-14	2. DRD Title Flight Product Qualification Report	3. Frequency AR	4. As-of-date --	5. 1st subm. date See Block 9	6. Copies	
					a. Type See Block 8	b. Number See Block 8
7. Data type: <input type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks Block 5: At System Acceptance Review or as directed in the Task Order.				
<i>SECTION 2.1 – Software Requirements and Verification Documentation</i>						
1. Line item no. SW-01	2. DRD Title Software Requirements Document	3. Frequency RT	4. As-of-date --	5. 1st subm. date As directed in the Task Order	6. Copies	
					a. Type See Block 8	b. Number See Block 8
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks				
1. Line item no. SW-02	2. DRD Title Software Development Plan	3. Frequency RT	4. As-of-date --	5. 1st subm. date As directed in the Task Order	6. Copies	
					a. Type See Block 8	b. Number See Block 8
7. Data type: <input type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks				
1. Line item no. SW-03	2. DRD Title Software Design Documents	3. Frequency RT	4. As-of-date --	5. 1st subm. date As directed in the Task Order	6. Copies	
					a. Type See Block 8	b. Number See Block 8
7. Data type: <input type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks				
1. Line item no. SW-04	2. DRD Title Software Code	3. Frequency RT	4. As-of-date --	5. 1st subm. date As directed by the Task Order	6. Copies	
					a. Type See Block 8	b. Number See Block 8
7. Data type: <input type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks				

1. Line item no. SW-05	2. DRD Title Software Assurance Plan	3. Frequency RT	4. As-of-date --	5. 1st subm. date Contract start + 60 days	6. Copies	
					a. Type See Block 8	b. Number See Block 8
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Electronic copy delivered to the DDMS.		9. Remarks Review annually at a minimum.				

1. Line item no. SW-06	2. DRD Title Software Test Description	3. Frequency RT	4. As-of-date --	5. 1st subm. date As directed by the Task Order	6. Copies	
					a. Type See Block 8	b. Number See Block 8
7. Data type: <input type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks				

1. Line item no. SW-07	2. DRD Title Software Test Plan	3. Frequency RT	4. As-of-date --	5. 1st subm. date As directed by the Task Order	6. Copies	
					a. Type See Block 8	b. Number See Block 8
7. Data type: <input type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks				

1. Line item no. SW-08	2. DRD Title Version Description Document (Software and/or Firmware)	3. Frequency RT	4. As-of-date --	5. 1st subm. date As directed by the Task Order	6. Copies	
					a. Type See Block 8	b. Number See Block 8
7. Data type: <input type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks				

SECTION 2.2 – Technical Products and Data Packages

1. Line item no. TD-01	2. DRD Title Flight Products Systems Requirements Review (SRR) Data Package	3. Frequency RT	4. As-of-date --	5. 1st subm. date As directed by the Task Order	6. Copies	
					a. Type See Block 8	b. Number See Block 8
7. Data type: <input type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks				

1. Line item no. TD-02	2. DRD Title Preliminary Design Review (PDR) Data Package	3. Frequency RT	4. As-of-date --	5. 1st subm. date See Block 9	6. Copies	
					a. Type See Block 8	b. Number See Block 8
7. Data type: <input type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks Block 5: Submit 14 days before PDR or as directed by Task Order				

1. Line item no. TD-03	2. DRD Title Flight Product Critical Design Review (CDR) Data Package	3. Frequency RT	4. As-of-date --	5. 1st subm. date See Block 9	6. Copies	
					a. Type See Block 8	b. Number See Block 8
7. Data type: <input type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks Block 5: Submit 14 days before CDR or as directed by Task Order				

1. Line item no. TD-04	2. DRD Title Acceptance Data Package (ADP)	3. Frequency RT	4. As-of-date --	5. 1st subm. date Delivery of End Item	6. Copies	
					a. Type See Block 8	b. Number See Block 8
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution 1) Deliver to the DDMS for all Flight Products. 2) Hardcopy submitted with end item.		9. Remarks The DD 250 is the form used for the final approval of the ADP and the product delivered.				

1. Line item no. TD-05	2. DRD Title Limited Life Items List	3. Frequency RT	4. As-of-date --	5. 1st subm. date See Block 9	6. Copies	
					a. Type See Block 8	b. Number See Block 8
7. Data type: <input type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks Block 5: Submit at SAR or as directed in the Task Order				

1. Line item no. TD-06	2. DRD Title Certification Data Package	3. Frequency RT	4. As-of-date --	5. 1st subm. date As directed in the Task Order	6. Copies	
					a. Type See Block 8	b. Number See Block 8
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks				

1. Line item no. TD-07	2. DRD Title Flight Product User's Guide	3. Frequency AD	4. As-of-date --	5. 1st subm. date As directed in the Task Order	6. Copies	
					a. Type See Block 8	b. Number See Block 8
7. Data type: <input type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks The User's Guide shall be updated as required by configuration change to the products or the product interfaces. Flight crew experiences when using the guide and corrections of technical content may be some of the sources for updates.				

1. Line item no. TD-08	2. DRD Title Engineering Analysis	3. Frequency RT	4. As-of-date --	5. 1st subm. date See Block 9	6. Copies	
					a. Type See Block 8	b. Number See Block 8
7. Data type: <input type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks Block 5: At System Acceptance Review or as directed in the Task Order.				

1. Line item no. TD-09	2. DRD Title Flight Products Verification and Validation Report	3. Frequency RT	4. As-of-date --	5. 1st subm. date See Block 9	6. Copies	
					a. Type See Block 8	b. Number See Block 8
7. Data type: <input type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks Block 5: The initial report is provided at qualification or 1st flight unit completion. The V&V report is completed at the Systems Acceptance Review.				

1. Line item no. TD-10	2. DRD Title Space Station Reliability and Maintainability Predictions Report	3. Frequency RT	4. As-of-date	5. 1st subm. date As directed in the Task Order	6. Copies	
					a. Type See Block 8	b. Number See Block 8
7. Data type: <input type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks				

1. Line item no. TD-11	2. DRD Title Test Report	3. Frequency RD	4. As-of-date --	5. 1st subm. date As directed in the Task Order	6. Copies	
					a. Type See Block 8	b. Number See Block 8
7. Data type: <input type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks				

1. Line item no. TD-12	2. DRD Title Delivery and Acceptance Report	3. Frequency AD	4. As-of-date --	5. 1st subm. date As directed in the Task Order	6. Copies	
					a. Type See Block 8	b. Number See Block 8
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks				

1. Line item no. TD-13	2. DRD Title Government Certification Approval Request (GCAR)	3. Frequency RT	4. As-of-date	5. 1st subm. date See Block 9	6. Copies	
					a. Type See Block 8	b. Number See Block 8
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks Block 5: At SAR or as directed in the Task Order.				

1. Line item no. TD-14	2. DRD Title Flight Products Workmanship Specification List	3. Frequency RT	4. As-of-date --	5. 1st subm. date See Block 9	6. Copies	
					a. Type See Block 8	b. Number See Block 8
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks Block 5: The initial submittal is at the PDR or as directed by the Task Order.				

1. Line item no. TD-15	2. DRD Title Electrical, Electronic, and Electromechanical (EEE) Parts List and Analysis Report	3. Frequency RT	4. As-of-date --	5. 1st subm. date As directed in the Task Order	6. Copies	
					a. Type See Block 8	b. Number See Block 8
7. Data type: <input type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks				

1. Line item no. TD-16	2. DRD Title Space Station Hardware Failure Modes and Effects Analysis (FMEA) and Critical Items List (CIL)	3. Frequency RT	4. As-of-date --	5. 1st subm. date As directed in the Task Order	6. Copies	
					a. Type See Block 8	b. Number See Block 8
7. Data type: <input type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks				

1. Line item no. TD-17	2. DRD Title Space Station Payload Safety Data Package	3. Frequency RT	4. As-of-date --	5. 1st subm. date As directed in the Task Order	6. Copies	
					a. Type See Block 8	b. Number See Block 8
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks				
1. Line item no. TD-18	2. DRD Title Space Station Hazard Reports (HRs)	3. Frequency RT	4. As-of-date --	5. 1st subm. date See Block 9	6. Copies	
					a. Type See Block 8	b. Number See Block 8
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks Block 5: Phase I, II and III Report versions are submitted concurrent with the milestone reviews or as specified in the Task Order.				
1. Line item no. TD-19	2. DRD Title Risk Assessment Executive Summary Report	3. Frequency RT	4. As-of-date --	5. 1st subm. date See Block 9	6. Copies	
					a. Type See Block 8	b. Number See Block 8
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks Block 5: Phase I, II and III Report versions are submitted concurrent with the milestone reviews or as specified in the Task Order.				
1. Line item no. TD-20	2. DRD Title Non-Conformance Record (NCR)	3. Frequency AR	4. As-of-date --	5. 1st subm. date --	6. Copies	
					a. Type See Block 8	b. Number See Block 8
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks - The Contractor shall provide NASA access to its internal electronic data system, if requested by the CO. Block 7: Written approval of "waiver", "use as is", and "repair" dispositions is required per requirements defined in Quality Plan and Configuration Management Plan.				
1. Line item no. TD-21	2. DRD Title Flight Products Failure Analysis Report	3. Frequency AR	4. As-of-date --	5. 1st subm. date See Block 9	6. Copies	
					a. Type See Block 8	b. Number See Block 8
7. Data type: <input type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks Block5: Established by agreement between the contractor and the COTR or the COTR's technical designee; may vary depending on the nature of the failure.				

1. Line item no. TD-22	2. DRD Title Engineering Design Change Proposal	3. Frequency AR	4. As-of-date --	5. 1st subm. date --	6. Copies	
					a. Type See Block 8	b. Number See Block 8
7. Data type: <input type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input checked="" type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks				

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

1. DRD Title Contract Management Plan	2. Date of current version 12/01/2011	3. DRL Line Item No. MGMT-01	RFP/Contract No. (Procurement completes) NNJ13HA01C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) To describe the contractor's management organization, approach, and systems.			5. DRD Category: (<i>check one</i>) <input type="checkbox"/> Technical <input checked="" type="checkbox"/> Administrative <input type="checkbox"/> SR&QA
6. References (<i>Optional</i>)		7. Interrelationships (<i>e.g., with other DRDs</i>)	
8. Preparation Information (<i>Include complete instructions for document preparation</i>) A. SCOPE: The contract management plan shall describe the contractor's organizational structure, contract management approach, and management systems that will be used to ensure technical, schedule, and cost performance. The plan shall be comprehensive in nature and integrate all management systems of the prime, subcontractors, and major vendors. B. CONTENT: The contract management plan shall address the contractor's processes for work planning, definition and authorization, scheduling, budgeting, data accumulation, safety and mission assurance, corrective action system processes and procedures, subcontractor management, material control, indirect cost management, and organization structure. The contract management plan shall also discuss the management relationships between the contractor's key personnel and the associated NASA personnel. The plan shall also describe the approach for tracking and allocating all costs (labor and non labor) associated with SOW Section 1 to each Task Order. The contract management plan shall also describe plans for the Contractor's off-site facilities including lease arrangements. This shall include plans for flexibility to accommodate fluctuations in workload or the availability of on-site space for the entire period of performance. C. FORMAT: Contractor's format shall comply with the environment associated with this data in the Engineering Directorate Design Data Management System (DDMS). The contract management plan shall be delivered in native format and be compatible with JSC standard software loads. D. MAINTENANCE: See Data Requirements List (DRL). E. DISTRIBUTION: Distribution shall be in accordance with the DRL. F. APPLICABLE DOCUMENTS:			

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

1. DRD Title Work Breakdown Structure and Dictionary	2. Date of current version 12/01/2011	3. DRL Line Item No. MGMT-02	RFP/Contract No. (Procurement completes) NNJ13HA01C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) To organize the tasks to be accomplished in this contract in a product-oriented structure. The Work Breakdown Structure (WBS) and dictionary shall provide the framework for structuring the program implementation plans, establishing and tracking budgets, preparing schedules, developing work force and material estimates, preparing work authorization documents, and reporting contract performance.		5. DRD Category: (<i>check one</i>) <input type="checkbox"/> Technical <input checked="" type="checkbox"/> Administrative <input type="checkbox"/> SR&QA	
6. References (<i>Optional</i>)		7. Interrelationships (<i>e.g., with other DRDs</i>)	
8. Preparation Information (<i>Include complete instructions for document preparation</i>) A. SCOPE: The WBS shall encompass all the products and services required to achieve all the requirements of this contract. The WBS shall subdivide the work to be accomplished into elements that serve as the basis for detailed planning and control, and in addition, permit collection of cost and schedule data for each element. B. CONTENT: The WBS shall depict a family tree composed of all the work required by the contract. The dictionary shall contain a concise description of contract tasks, to be performed and products to be delivered, subdivided by WBS elements. A WBS element may represent an identifiable product, a set of data, a service, a task, or a budget function. Lower levels of detail, which the contractor uses for its own management purposes to validate information reported to NASA, shall be compatible with NAS A requirements and be accessible to NASA. The relationship between the WBS and the contractor's internal organizations and processes should also be provided. C. FORMAT: The WBS tree should be in the organization chart format and the associated WBS narrative (WBS Dictionary) in text form and arranged as stated in the contents section of this DRD. The WBS tree and dictionary shall be provided in the Contractors' format within the environment associated with this data in the Engineering Directorate Design Data Management System (DDMS). The WBS structure and Dictionary shall be delivered in native format and be compatible with JSC standard software loads. D. MAINTENANCE: See Data Requirements List (DRL). E. DISTRIBUTION: Distribution shall be in accordance with the DRL. F. APPLICABLE DOCUMENTS:			

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

1. DRD Title Contract Management Report	2. Date of current version 5/1/2014	3. DRL Line Item No. MGMT-03	RFP/Contract No. (Procurement completes) NNJ13HA01C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) Provide information on the contractor's safety, technical, quality, financial, and deliver-to-schedule progress for use by the contract management team consisting of Engineering, S&MA, and Administrative personnel.		5. DRD Category: (<i>check one</i>) <input type="checkbox"/> Technical <input checked="" type="checkbox"/> Administrative <input type="checkbox"/> SR&QA	
6. References (<i>Optional</i>)		7. Interrelationships (<i>e.g., with other DRDs</i>) MGMT-01 Contract Management Plan MGMT-13 Small Business Subcontracting Plan and Reports BP-01 NASA Contractor Financial Management Report SMA-03 Safety and Health Plan RV-02 Regular Status Report/Summary Review	
8. Preparation Information (<i>Include complete instructions for document preparation</i>) A. SCOPE: The monthly Contract Management Report shall contain information on the contractor's safety, technical, quality, cost, and deliver-to-schedule performance. This report, along with detailed financial reports, serves as the contractor's formal reports given to NASA for contract surveillance. The Contract Management Report shall be delivered monthly. The associated Contract Management Summary Review shall be presented at the quarterly Contract Management Review (SOW 1.1). B. CONTENT: Contract Management Report: The contents of the report shall address all active contractual activities and performance. The structure of the report shall be selected by the contractor and agreed upon by the NASA COR. The following shall be addressed in the report: 1. SAFETY SUMMARY OSHA reportable events Personnel Injuries JSC on-site Close Calls and Status involving JETS contractor personnel Inspection Reports of on-site facilities dedicated to JETS contractor activities Flight Product Safety Related Discrepancy Reports (DR) and summary status of all remaining open DRs 2. CONTRACT LEVEL METRICS Staffing and Attrition Metrics Safety Performance Metrics Labor Rate Metrics Overall Task Order Metrics 3. TASK ORDER STATUS (For each Task Order) Status of each active task order (Red, Yellow, Green) in multiple categories selected by the contractor and agreed upon by the NASA COR Explanation of each category for which the status of a task order is Yellow or Red			

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

Quarterly Contract Management Summary Review (SOW 1.1): The contents of the review and associated deliverable report shall address all active contractual activities and performance. The structure of the report shall be selected by the contractor and agreed upon by the NASA COR. The following shall be addressed in the review and report:

1. CONTRACT MANAGEMENT SUMMARY
 - a. Contract Highlights
 - b. Contract Corrective Actions Taken
 - c. Major Contract Risks
 - d. Staffing and Attrition
 - e. OCI Status
 - f. Commercialization Status
2. SAFETY SUMMARY
3. COST PERFORMANCE SUMMARY (including Small Business Status)
4. TECHNICAL AND QUALITY PERFORMANCE SUMMARY
 - a. Contract Level Schedule and Technical Status
 - b. TIPI and Other Initiative Status
5. SCIENCE AND TECHNICAL SERVICES SUMMARY
6. PRODUCT PRODUCTION AND SCHEDULE SUMMARY STATUS (Individual Task Order TCS Status by Division)

Minutes taken during the previous Summary Review shall be taken and submitted with the next status report.

C. FORMAT:

The Contract Management Report shall be in text form and arranged as stated in the contents section of this DRD. The Contract Management Summary Review shall be a view graph presentation. Both products shall be provided in the Contractor's format within the environment associated with this data, in the Engineering Directorate Design Data Management System (DDMS). The Contract Management Report and Summary Review shall be delivered in native format and be compatible with JSC standard software loads.

D. MAINTENANCE:

See Data Requirements List (DRL).

E. DISTRIBUTION:

Distribution shall be in accordance with the DRL.

F. APPLICABLE DOCUMENTS:

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

1. DRD Title Staffing and Critical Skills Plan	2. Date of current version 12/01/2011	3. DRL Line Item No. MGMT-04	RFP/Contract No. (Procurement completes) NNJ13HA01C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) Provide contractor's approach meeting the staff requirements of the SOW.			5. DRD Category: (<i>check one</i>) <input type="checkbox"/> Technical <input checked="" type="checkbox"/> Administrative <input type="checkbox"/> SR&QA
6. References (<i>Optional</i>)		7. Interrelationships (<i>e.g., with other DRDs</i>) MGMT-01 Contract Management Plan MGMT-05 Contract Phase-In Plan MGMT-09 Total Compensation Plan	
8. Preparation Information (<i>Include complete instructions for document preparation</i>) A. SCOPE: The Staffing and Critical Skills Plan describes the process for attracting and retaining qualified personnel to meet the required staffing levels. Upon approval, the Staffing and Critical Skills Plan will become a part of the contract as Attachment J-15. B. CONTENT: At a minimum, the contractor shall address the following elements: <ol style="list-style-type: none"> 1. A narrative that describes the basis of the overall staffing approach 2. Staffing of the proposed organizational structure including proposed teaming partners and subcontractor personnel, including the numbers and types of personnel 3. Sources of the proposed staff including its plans to use qualified personnel from within the contractor's company, new hires and retention of incumbent personnel including an estimated percentage of each category proposed. Provide rationale for hiring or replacing incumbent personnel 4. Job descriptions and qualifications by proposed skill levels 5. Retention Plans for maintaining and retaining a qualified workforce for expected high attrition positions throughout the course of the contract 6. Plans for staffing flexibility to accommodate changes in requirements, fluctuation in workload and unexpected attrition including how staffing will be managed for newly authorized IDIQ work, including plans for retaining critical skills given unpredictable variations in workload 7. Identify all critical skills across the contract and explain how and to what level those critical skills will be maintained. Also include how the loss of a critical skill will be mitigated. NOTE: This element is due with final submission of the Staffing and Critical Skills Plan (at Contract Start + 30 days) C. FORMAT: Contractor's format shall comply with the environment associated with this data in the Engineering Directorate Design Data Management System (DDMS). The Staffing and Critical Skills plan shall be delivered in native format and be compatible with J SC standard software loads. D. MAINTENANCE: See Data Requirements List (DRL). E. DISTRIBUTION: Distribution shall be in accordance with the DRL. F. APPLICABLE DOCUMENTS:			

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

1. DRD Title Contract Phase-In Plan	2. Date of current version 12/01/2011	3. DRL Line Item No. MGMT-05	RFP/Contract No. (Procurement completes) NNJ13HA01C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) To describe the Contractor's implementation approach to transition development, test, and facility maintenance and operations, functions and data management responsibility from the incumbent contractor.		5. DRD Category: (<i>check one</i>) <input type="checkbox"/> Technical <input checked="" type="checkbox"/> Administrative <input type="checkbox"/> SR&QA	
6. References (<i>Optional</i>)		7. Interrelationships (<i>e.g., with other DRDs</i>) MGMT-01 Contract Management Plan MGMT-04 Staffing and Critical Skills Plan	
8. Preparation Information (<i>Include complete instructions for document preparation</i>) A. SCOPE: The JETS Contract Phase-In Plan provides plans for the transfer of all anticipated on-going development and operation activities during the 60 day contract Phase-In period along with supporting logic and rationale. After approval, the Contract Phase-In Plan will become part of the contract as Attachment J-10. B. CONTENT: This Contract Phase-In Plan shall describe the overall plan for transition. At a minimum, the plan shall address: <ul style="list-style-type: none"> a. Schedule with key milestones, and personnel responsible for those milestones b. Metrics used to determine progress for contract transition c. Approach for ensuring continuity of service, including: <ul style="list-style-type: none"> 1. Approach for transitioning and processing of multiple IDIQ task orders and associated task order plans required for work to begin on day 1 of the contract start. 2. Continuous support of purchases and contracts defined in IDIQ task orders. 3. Plan for documentation control transfer. 4. Plan for continuance of facilities maintenance and operations. 5. Approach for phase-in of critical and high-risk operations and activities and mitigation strategies to minimize impact to JSC. 6. Approach for establishing contacts and interfaces with customers and the Government. 7. A description of tasks, if any, requiring a continuation of support from the incumbent contractor. d. Approach and rationale for implementing the plans, procedures, and processes required for performance of the contract, including property, personnel, facilities, and security. e. Approach for informing NASA of milestone status, progress, and issues f. Information Technology Preparation: <ul style="list-style-type: none"> 1. Identify all contractor-provided applications that will need to be integrated at JSC. 2. Identify any application or system connectivity needs to or from JSC. g. Property control transfer, including schedule and milestones for completing 100% inventory in the following areas: <ul style="list-style-type: none"> 1. Store stock assets 2. Program stock assets 3. Critical spares 4. Government Furnished Property (joint inventory with incumbent) 5. Installation Accountable Government Property (joint inventory with incumbent) The schedule shall include notification to the organizations 30 days prior to the initial start of an inventory. Individuals who will be performing inventories shall be identified. h. Security considerations, including Homeland Security Presidential Directive (HSPD)-12 badging requirements 			

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

- i. Identify risks associated with Phase-in Period and discuss risk mitigation strategy
- j. Associate Contract Agreement implementation plan

C. FORMAT:

Contractor's format shall comply with the environment associated with this data in the Engineering Directorate Design Data Management System (DDMS). The Contract Phase-In Plan shall be delivered in native format and be compatible with JSC standard software loads.

D. MAINTENANCE:

See Data Requirements List (DRL).

E. DISTRIBUTION:

Distribution shall be in accordance with the DRL.

F. APPLICABLE DOCUMENTS:

NPR 1600.1: NASA Security Program Procedural Requirements.

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

1. DRD Title Wage/Salary and Fringe Benefit Data	2. Date of current version 12/01/2011	3. DRL Line Item No. MGMT-06	RFP/Contract No. (Procurement completes) NNJ13HA01C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) The Wage/Salary and Fringe Benefit Data will be used by the NASA Contracting Officer and the Contractor Industrial Relations Officer to assist in the monitoring of Service Contract Act compliance.		5. DRD Category: (<i>check one</i>) <input type="checkbox"/> Technical <input checked="" type="checkbox"/> Administrative <input type="checkbox"/> SR&QA	
6. References (<i>Optional</i>) FAR 52.222-1, Notice to the Government of Labor Disputes FAR 52.222-40, Notification of Employee Rights Under the National Labor Relations Act FAR 52.222-41, Service Contract Act of 1965 FAR 52.222-42, Statement of Equivalent Rates for Federal Hires		7. Interrelationships (<i>e.g., with other DRDs</i>)	
8. Preparation Information (<i>Include complete instructions for document preparation</i>) A. SCOPE: The Wage/Salary and Fringe Benefit Data shall be submitted by the Contractor, and any subcontractors, which are subject to the provisions of the Service Contract Act, to the Contracting Federal Agency. This requirement is in accordance with FAR regulations 22.1007 and 22.1000. B. CONTENT: The Wage/Salary and Fringe Benefit Data shall contain the data included in the enclosed DRD forms, titled "Wage/Salary Rate Information", "Fringe Benefit for Service Employees", and Fringe Benefits per Collective Bargaining Agreement". The Wage/Salary Rate Information shall contain a listing of all exempt and nonexempt labor classifications on the contract. Separate forms shall be utilized for classifications working in different geographic areas and for each subcontractor. Wage determination numbers, appropriate labor organization names, and subcontractor names, shall be reflected. All nonexempt labor classifications shall be matched to wage determination classes or to Collective Bargaining Agreement (CBA) classifications if union represented employees are working on the contract. Annotate exempt or nonexempt and union or nonunion. The current hourly rates shall reflect the actual lowest and highest paid employees, along with a computed average rate. State the number of employees in each labor category. Separate Fringe Benefit forms shall be completed for non-represented classifications and for each separate CBA, if applicable. A separate form shall be completed for the prime and each subcontractor. C. FORMAT: The Wage/Salary and Fringe Benefit Data shall be in a format substantially the same as enclosed with this DRD. (Forms 1, 2 and 2A enclosed) D. MAINTENANCE: See Data Requirements List (DRL). E. DISTRIBUTION: Distribution shall be in accordance with the DRL. F. APPLICABLE DOCUMENTS:			

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

FORM 1

Page 1 of 1

Wage/Salary Rate Information

<u>Standard Labor Category</u>	<u>Wage Determination Classification</u>	<u>Exempt or Nonexempt</u>	<u>Union or Nonunion</u>	<u>Current Hourly Rate</u>	<u>FTE No. of Employees</u>
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Illustration of required data:

Program Manager	Not Required	E	N	\$40.00	1
Supervisor	Not Required	E	N	\$32.00	1
Electrical Technician	Electronics Technician Maintenance II	N	U	\$23.89	12
File Clerk	General Clerk III	N	N	\$14.90	2
Secretary	Secretary II	N	N	\$18.57	1

Submit data in the above-illustrated format for all labor classifications used, or planned to be used, on this contract. All nonexempt labor classifications must be matched to wage determination classes listed in the area wage determination or applicable collective bargaining agreement.

Wage/Salary Rate Information

<u>Contractor's Labor Category</u>	<u>Wage Determination Classification</u>	<u>Exempt or Nonexempt</u>	<u>Union or Nonunion</u>	<u>Current Hourly Rate</u>	<u>FTE No. of Employees</u>
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JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

FORM 2

Page 1 of 2

FRINGE BENEFITS PER COLLECTIVE BARGAINING AGREEMENT

For period from _____ to _____

Contractor:

Contract Number:

Number of employees in bargaining unit: _____

Total number of employees on contract: _____

1. Shift Differential: (Describe any pay over and above base rates for 2nd, 3rd, weekend, or other shifts.)

2. Health and Welfare Items and Other Fringe Items: (Indicate whether or not coverage is provided to employees and state current average hourly cost per employee covered by a Collective Bargaining Agreement.)

	Item	Coverage Provided (Yes or No)	Average Hourly Cost
a.	Life Insurance		
b.	Accidental Death		
c.	Disability		
d.	Medical and Hospital		
e.	Dental		
f.	Retirement Plan		
g.	Savings/Thrift Plan		
h.	Sick Leave		
i.	Tuition		
j.	Other (Describe)		
	TOTAL		

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

Page 2 of 2

3. Paid Absences:

	Service Requirement	Days per Year
a.	Vacation	
b.	Holiday	
c.	Sick Leave	
d.	Jury Leave	
e.	Funeral Leave	
f.	Military Leave	
g.	Other (Describe)	

4. Severance Pay: (Briefly describe terms and amounts.)

5. Other Fringe Benefits: (Describe any other fringe benefits not included above, and show average hourly cost.)

6. Premium Pay: (Discuss all premium pay provisions not previously shown on this form.)

Signature of Company Representative

Date

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

FORM 2A

Page 1 of 1

FRINGE BENEFITS FOR SERVICE EMPLOYEES

For Period from _____ to _____

Contractor:

Number of nonexempt employees on contract: _____

Total number of employees on contract: _____

1. Health and Welfare Items and Other Fringe Items:
(Indicate whether or not coverage is provided to employees and state current average hourly cost per service employee.)

<u>Item</u>	<u>Coverage Provided</u>	<u>Average Hourly Cost</u>
a. Life Insurance		
b. Accidental Death		
c. Disability		
d. Medical & Hospital		
e. Dental		
f. Retirement Plan		
g. Savings/Thrift Plan		
h. Sick Leave		
i. Tuition Reimbursement		
j. Other (Describe)		

2. Paid Absences

	<u>Service Requirement</u>	<u>Days per Year</u>
a. Vacation		
b. Holidays		
c. Sick Leave		
d. Jury Leave		
e. Funeral Leave		
f. Military Leave		
g. Other (Describe)		

Signature of Company Representative

Date

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

1. DRD Title Labor Relations Plan	2. Date of current version 12/01/2011	3. DRL Line Item No. MGMT-07	RFP/Contract No. (Procurement completes) NNJ13HA01C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) To evaluate the Contractor's approach to working with organized labor.			5. DRD Category: (<i>check one</i>) <input type="checkbox"/> Technical <input checked="" type="checkbox"/> Administrative <input type="checkbox"/> SR&QA
6. References (<i>Optional</i>) FAR 52.222-1: Notice to the Government of Labor Disputes		7. Interrelationships (<i>e.g., with other DRDs</i>) MGMT-05 Contract Phase-In Plan	
8. Preparation Information (<i>Include complete instructions for document preparation</i>) A. SCOPE: A Labor Relations Plan is required from the Prime Contractor and any subcontractor proposing work on the contract that is currently represented by organized labor. After approval, the Labor Relations Plan will become part of the contract as Attachment J-16. The content provides an overview of the Contractor's approach to working with organized labor and describes experience with organized labor. B. CONTENT: This content will be used to evaluate the Contractor's approach towards working with organized labor. 1. Describe the Contractor's company plan with respect to the use of organized labor on this contract. 2. Describe the Contractor's plan for recognizing the existing collective bargaining agreements, bridge agreements, negotiating new agreements, or complying with the economic terms only, and not recognizing the union. 3. Provide the name and describe the experience of the proposed person who will be responsible for working labor relations issues within the Contractor's company, including that person's experience in negotiating collective bargaining agreements, and resolving grievances. Where will that person be located and what level of autonomy will that person possess. Also, describe who will be responsible for working labor relations issues for each location that work is being performed. 4. Describe the methods the Contractor's company's plan to use to promote and maintain harmonious labor relations during contract performance. C. FORMAT: The Contractor's format is acceptable traceable to the content listed above. D. MAINTENANCE: See Data Requirements List (DRL). E. DISTRIBUTION: Distribution shall be in accordance with the DRL. F. APPLICABLE DOCUMENTS:			

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

1. DRD Title Notification of Potential Labor Dispute and Contingency Strike Plan	2. Date of current version 12/01/2011	3. DRL Line Item No. MGMT-08	RFP/Contract No. (Procurement completes) NNJ13HA01C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) The notification of Potential Labor Dispute and Contingency Strike Plan will be used by the NASA/Contracting Officer and Contractor Industrial Relations Officer to facilitate the coordination of activities between the Contractor and the affected NASA Operational Directorates, to ensure that necessary steps are taken to prepare for any potential strike situations, and to prevent the disruption of work.		5. DRD Category: (<i>check one</i>) <input type="checkbox"/> Technical <input checked="" type="checkbox"/> Administrative <input type="checkbox"/> SR&QA	
6. References (<i>Optional</i>) FAR 52.222-1: Notice to the Government of Labor Disputes		7. Interrelationships (<i>e.g., with other DRDs</i>)	
8. Preparation Information (<i>Include complete instructions for document preparation</i>) A. SCOPE: The Notification shall describe the situation that has the potential of impacting the contract, and provide the corrective actions initiated. The Notification of Potential Labor Dispute and Contingency Strike Plan are required for the Prime and any subcontractors supporting this contract. B. CONTENT: The Notification of Potential Labor Dispute shall describe the situation that has the potential of impacting the timely performance of the contract. It should also provide the planned negotiation dates, with organized labor, and describe other corrective actions initiated. Notification should be made prior to the expiration of CBA, prior to any significant changes to existing working conditions or pay practices, or any situation that could impact the performance of the contract through labor unrest. The Contingency Strike Plan shall describe the Contractor's plan for assuring the timely performance of the work under this contract during a strike or work stoppage situation. As a minimum, contents should include: a. Information on implementation of the strike plan b. A pre-strike checklist for managers and supervisors c. A description of how critical work will be performed d. An organization chart of the strike committee membership e. Phone numbers of key management personnel and standards of conduct policies during the strike C. FORMAT: Contractor format is acceptable D. MAINTENANCE: See Data Requirements List (DRL). E. DISTRIBUTION: Distribution shall be in accordance with the DRL. F. APPLICABLE DOCUMENTS:			

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

1. DRD Title Total Compensation Plan	2. Date of current version 12/01/2011	3. DRL Line Item No. MGMT-09	RFP/Contract No. (Procurement completes) NNJ13HA01C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) To describe the Offeror's approach to providing the quality of professional services needed for contract performance.		5. DRD Category: (<i>check one</i>) <input type="checkbox"/> Technical <input checked="" type="checkbox"/> Administrative <input type="checkbox"/> SR&QA	
6. References (<i>Optional</i>) FAR 52.222-46, "Evaluation Of Compensation For Professional Employees" FAR 52.237-10, "Identification of Uncompensated Overtime" NFS 1852.231-71, "Determination of Compensation Reasonableness"		7. Interrelationships (<i>e.g., with other DRDs</i>) MGMT-04 Staffing and Critical Skills Plan	
8. Preparation Information (<i>Include complete instructions for document preparation</i>) A. SCOPE Total compensation plan(s) shall identify and discuss wages, salaries, and fringe benefits for professional employees and non-exempt service employees for both the Prime team members and all subcontractors meeting the thresholds of NFS 1852.231 - 71(d). It shall address the requirements of the Service Contract Act and commit to the compliance of all wage determinations. The compensation templates shall be provided in the cost/price volume. Upon approval, the Total Compensation Plan(s) will become a part of the contract as Attachment J-13. B. CONTENT: <ol style="list-style-type: none"> 1. Provide a discussion of the qualification criteria (education and experience) that is normally associated with the labor classifications identified. Explain how the Offeror's proposed compensation plan recognizes the differences in skills and complexities of varied disciplines as well as job difficulty. 2. Provide the Offeror's company's salary range/wage information for each labor classification identified. Salary ranges will also reflect the impact of employment tenure. Describe planned escalations for exempt and non-exempt employees. 3. Discuss the Offeror's company's fringe benefit policies and practices. Indicate any differences in fringe benefits exist among working groups. For example, address the Offeror's company policy on short and long term disability insurance, and life insurance, including information on the types of benefits offered, and the company share of premium costs. 4. Describe the Offeror's company policy on health insurance coverage, including information on the types of health insurance benefits offered, the company share of premium costs, what co-pays are required, the deductibles, the effective date of coverage, and the anticipated escalation of insurance costs. Also, include the Offeror's policy on assuming health insurance coverage for incumbent employees, including pre-existing medical conditions. 5. Describe the Offeror's policy on retirement/savings plans, including how much the company provides towards the plan and information on vesting. Address escalation and employer/employee cost sharing ratios. 6. Discuss other salary payment policies, such as cost-of-living adjustments, relocation expenses, and reduction in force, including severance pay, overtime pay, holiday pay, and any other premium pay anticipated. 7. If uncompensated overtime is proposed, it shall be in accordance with FAR 52.237-10, "Identification of Uncompensated Overtime". If proposed, the Offeror shall discuss the effects of uncompensated overtime on the Total Compensation Plan, and provide a discussion as to whether the uncompensated overtime is voluntary or involuntary. Describe the possible effects that uncompensated overtime will have on employee morale and retention. The Offeror shall provide a copy of the company's policy for uncompensated overtime with proposal. 8. The Offeror shall discuss the policy for dealing with seniority and recognition of seniority if incumbents are hired. The discussion shall include a statement regarding the Offeror's intent with respect to paying incumbent employees the amount they are currently earning with salaries/wages and fringe benefits, including accrued leave. 9. The Offeror shall describe incentives to motivate and reward job performance, and to encourage the retention of personnel. The Offeror shall describe the policies, procedures, and experience related to these incentives. 10. If the Offeror or other divisions of the parent company are performing a Government contract employing skills of a comparable professional level in the local area, or at the same site of performance as this proposed contract, any differences in the Total Compensation Plan (TCP) for the proposed effort, and other contracts will be identified. The rationale for these differences shall be explained. 11. Explain how wage/salary ranges were established. Supporting information shall include data, such as recognized national and regional compensation surveys, and studies of professional, public and private organizations used in establishing this proposed TCP. The Offeror shall describe its commitment for compliance with the Service Contract Act and all wage 			

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

determinations.

12. Provide a discussion of prior experience with this proposed TCP, including such information as the length of time the Offeror

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

(or other elements of the company) have used the TCP and the turnover experienced compared to the National Average.

C. FORMAT:

Contractor's format is acceptable traceable to the content listed above.

D. MAINTENANCE:

See Data Requirements List (DRL).

E. DISTRIBUTION:

Distribution shall be in accordance with the DRL.

F. APPLICABLE DOCUMENTS:

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

1. DRD Title External Customer Plan	2. Date of current version 12/01/2011	3. DRL Line Item No. MGMT-10	RFP/Contract No. (Procurement completes) NNJ13HA01C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) Contractor Plan for Identifying External Customers for EA/KA Directorates Capabilities		5. DRD Category: (<i>check one</i>) <input type="checkbox"/> Technical <input checked="" type="checkbox"/> Administrative <input type="checkbox"/> SR&QA	
6. References (<i>Optional</i>) NPD 1050.1: Authority to Enter into Space Act Agreements		7. Interrelationships (<i>e.g., with other DRDs</i>) Contract Clause H.16 EXTERNAL CUSTOMER EFFORT MGMT-03 Contract Management Report	
8. Preparation Information (<i>Include complete instructions for document preparation</i>) A. SCOPE: The External Customer Plan (ECP) describes the Contractor's multi-year approach for identifying, attracting, and retaining external customers for EA and KA. The intent of the plan is to allow the contractor to market and use EA/KA Directorate facilities, equipment, contractor personnel and limited NASA capabilities on a non-interference basis, for the purposes of retaining critical skills and off-setting the Government's cost of maintaining such capabilities. Execution of ECP agreements shall be in accordance with Clause H.16 External Customer Effort. Upon approval, the ECP will become a part of the contract as Attachment J-20. After the finalized ECP is approved by NASA, the Contractor shall enter into a formal agreement with NASA that establishes the terms and conditions for use of Government property. A report, referred to as the External Customer Status, shall be provided as part of the Monthly Contract Management Report. The report shall contain a running list of contacts that are being or have been sought through the ECP process. B. CONTENT: The plan shall describe the Contractor's approach for retaining skills and offsetting the government's cost of maintaining facilities by supporting External Customers. The plan shall outline cost avoidance targets that the contractor shall be evaluated against. Cost avoidance is defined as the estimated funds that would have been spent by the Government for the maintenance of facilities, equipment, and capabilities had it not have been paid for by the external customer. Also, it includes any funds for facility usage that are provided to the Government. The ECP shall follow the table of contents below, supplemented by other relevant data identified by the contractor: 1. Executive Summary-summarize the plan's key points and approaches. 2. Directorate Capabilities, Constraints, and Policies: i. Identify and evaluate internal capabilities not generally available from the commercial market and unique to NASA. ii. Provide a comprehensive checklist of all constraints and policies the Customer must meet in order to operate in the EA/KA facilities. iii. Provide a comprehensive process that reviews the potential customer's requirements against Directorates capabilities, constraints, and policies. iv. Describe plans to resolve issues between customer requirements and Directorate schedules, capabilities, constraints, and policies. (Goal: These checklists and processes will be used to screen/vet potential customers, with the intent that if they satisfy all constraints it makes them eligible to enter into an agreement with the contractor or NASA) 3. Procedures: i. Identify and describe procedures for reducing/eliminating conflict between government and non-government work. ii. Identify and describe procedures for coordinating user requests for new services within pre-existing commitments to ensure compatibility and fulfillment with existing resources. iii. Identify and describe procedures for protecting data between companies and potential Organizational Conflicts of Interest. iv. Identify schedules and metrics for staying within the plan. 4. Costs: i. Describe the Contractor's plan to assist NASA in establishing a price list for use of the Directorates' facilities and capabilities. Identify all factors in determining the costs (e.g., equipment maintenance and replacement costs). ii. Describe the approach for determining the cost avoidance to NASA for each External Customer agreement utilizing			

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

- accepted accounting practices. Include actual reimbursement to NASA, auditable cost offsets and any other factors deemed appropriate. Propose a format for reporting this data to NASA.
- iii. Provide the definition of a “completed” or “booked” External Customer Agreement.
 - iv. Identify cost avoidance targets.
5. Recruiting:
- i. Identifying Potential Customers: Describe plans for identifying potential customers, both initially and long-term.
 - ii. Marketing EA and KA Resources: Describe plans for marketing to potential customers, and the estimated associated costs.
6. Integration Support:
- i. Describe plans to support both NASA and the customer during agreement development and negotiations.
 - ii. Describe plans to document the customer’s requirements and how they satisfied all constraints and policies. (This data will be used to demonstrate compatibility between the External Customer’s requirements and NASA’s facilities. It may also be utilized in the formulation of the formal agreement with the customer, as needed).
7. Implementation:
- i. Describe the approach to implementing and executing the External Customer’s requirements from the point of a signed agreement/commitment through completion of the External Customer activity.
 - ii. Provide milestones and metrics for documenting progress.
8. Risks and other relevant data
- i. Identify risks and mitigation strategies associated with the approach identified in the plan.
 - ii. Include other relevant data identified by the contractor.
9. Reporting:
- i. The contractor shall submit monthly reports as part of the Contract Management Report summarizing their progress.
 - ii. Reports shall include, at a minimum: Summaries of contacts made, and potential customers, and the associated:
 - a. Amount of work expected
 - b. Anticipated activities
 - c. Timeframe/ Length of use
 - d. Level and type of support by the contractor
 - e. Estimated support (including cost) of the contractor
 - f. Facility equipment and infrastructure required
 - g. Additional details not otherwise addressed (e.g., operations, setup, teardown, returning systems to neutral state)

C. FORMAT:

Contractor’s format shall comply with the environment associated with this data in the Engineering Directorate Design Data Management System (DDMS). The ECP shall be delivered in native format and be compatible with the JSC standard software loads.

D. MAINTENANCE:

See Data Requirements List (DRL).

E. DISTRIBUTION:

Distribution shall be in accordance with the DRL.

F. APPLICABLE DOCUMENTS:

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

1. DRD Title Technology, Innovations, and Process Improvement Plan	2. Date of current version 12/18/2011	3. DRL Line Item No. MGMT-11	RFP/Contract No. (Procurement completes) NNJ13HA01C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) To identify and promote Technology, Innovations, and Process Improvements that will improve EA and KA products, processes, and operations.			5. DRD Category: (<i>check one</i>) <input type="checkbox"/> Technical <input checked="" type="checkbox"/> Administrative <input type="checkbox"/> SR&QA
6. References (<i>Optional</i>)		7. Interrelationships (<i>e.g., with other DRDs</i>) MGMT-03 Contract Management Report	
8. Preparation Information (<i>Include complete instructions for document preparation</i>) A. SCOPE: The JETS contractor team shall promote infusion of technology and innovations into EA and KA products, processes and operations. The Contractor shall identify and propose innovative techniques and methods that when implemented, would result in improved quality of products, processes or operations while maintaining or reducing costs to the Engineering and ARES Directorates. The proposals must include sufficient rationale to demonstrate the feasibility and effectiveness of the Contractor's proposal including an analysis of benefits and risks. Proposed changes to processes should not be limited to those currently used or described in task orders. Upon approval, the plan will become a part of the contract as Attachment J-21. Implementation of proposed innovations and/or improvements and any detailed assessments of such proposals will be authorized on a Task Order under Section 2 of the SOW. B. CONTENT: The Technology, Innovation, and Process Improvement (TIPI) plan shall include at the minimum: a process for identifying new technologies, innovations, best practices and process improvements a process for continuous assessment and reprioritization of opportunities for innovations/improvement a process for engaging external resources with the JETS contractor team and beyond a process for targeting areas for improvement a process for developing, evaluating and submitting TIPI proposals to NASA A TIPI status, delivered as part of the Contract Management Summary Review and Report, shall include as a minimum: an estimate of cost savings, and other benefit to the Government, for implemented innovations/improvements, realized during the current evaluation period, and three prior evaluation periods a status of the implementation of approved innovations/improvements a summary of new proposals a listing of EA and KA products, processes and operations that the Contractor considers to be a candidate for improvement/innovation, including rationale for each identified candidate a status of the Contractor's ongoing efforts to identify technologies, innovations and process improvements C. FORMAT: Contractor's format shall comply with the environment associated with this data in the Engineering Directorate Design Data Management System. The TIPI Plan shall be delivered in native format and shall be compatible with the JSC standard software loads. D. MAINTENANCE: See Data Requirements List (DRL). E. DISTRIBUTION: Distribution shall be in accordance with the DRL. F. APPLICABLE DOCUMENTS:			

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

1. DRD Title Organizational Conflicts of Interest (OCI) Mitigation Plan	2. Date of current version 12/01/2011	3. DRL Line Item No. MGMT-12	RFP/Contract No. (Procurement completes) NNJ13HA01C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) Used when the contractor proposes to resolve an organizational conflict of interest by mitigation.			5. DRD Category: (<i>check one</i>) <input type="checkbox"/> Technical <input checked="" type="checkbox"/> Administrative <input type="checkbox"/> SR&QA
6. References (<i>Optional</i>) FAR Subpart 9.5, Organizational and Consultant Conflicts of Interest		7. Interrelationships (<i>e.g., with other DRDs</i>) H.23 Mitigation of Organizational Conflict of Interest H.24 Disclosure of Organizational Conflict of Interest after Contract Award	
8. Preparation Information (<i>Include complete instructions for document preparation</i>) A. SCOPE: The Organizational Conflict of Interest (OCI) Mitigation Plan describes the contractor's approach to mitigate potential OCI issues created by the performance of work under the Contract. B. CONTENT: The Organizational Conflict of Interest (OCI) Mitigation Plan shall: <ol style="list-style-type: none"> 1. Demonstrate an understanding of (i) OCI principles and (ii) the full breadth of OCI issues and the types of harm that can result. 2. Describe the actions the contractor intends to take to mitigate the OCIs identified in the RFP. If using a firewall, explain how these actions will operate to successfully address the conflict without adversely affecting performance of the contract. Additionally, identify any potential OCIs created by the requirements of this RFP which the contractor intended to resolve using methods other than mitigation. Specific mitigation strategies shall be appended to the mitigation plan; specific plans to limit future competition will be reflected in the clause at NFS 1852.209-71, — Limitation of Future Contracting. 3. Require the reporting of all potential/actual OCIs during performance of the contract. An OCI report shall include: <ol style="list-style-type: none"> i. a description of the conflict, ii. the plan for resolving the conflict, and iii. the benefits/risks vis-à-vis contract performance associated with plan approval/acceptance. 4. Include a requirement to update this plan as necessary to address specific OCIs. All updates to the plan must be approved by the contracting officer and the updates/changes must be incorporated in the contract to be effective. 5. Define company roles, responsibilities, and procedures for screening (i.e., identifying/recognizing, analyzing/evaluating, resolving, and reporting) existing and new business opportunities for actual/potential OCIs. 6. Identify any affiliated companies/entities (e.g., a parent company or a wholly-owned subsidiary) and procedures for coordinating OCIs with such affiliated companies/entities. 7. Explain how the contractor will flow down the provisions of this mitigation plan to any subcontractor that may have a conflict with regard to performing the requirements of this contract. Discuss affected subcontractors' OCI program as it relates to this contract and specifically explain how affected subcontractors will identify, resolve, and report OCIs associated with this contract. 8. Establish and require entrance training for new employees, refresher training for existing employees, and exit training for departing employees. 9. Define organizational and employee sanctions for violations of established OCI procedures/requirements/guidelines. 10. Require periodic self-audits to ensure compliance with established OCI procedures/requirements/guidelines. 11. Define records related to the OCI plan (e.g., training and audit records) that will be made available to the Government upon request. 			

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

C. FORMAT:

The Contractor's format shall comply with the environment associated with this data in the Engineering Directorate Design Data Management System (DDMS). The Organizational Conflict of Interest Mitigation Plan shall be delivered in native format and shall be compatible with JSCs standard software loads.

D. MAINTENANCE:

See Data Requirements List (DRL).

E. DISTRIBUTION:

Distribution shall be in accordance with the DRL.

F. APPLICABLE DOCUMENTS:

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

1. DRD Title Small Business Subcontracting Plan and Reports	2. Date of current version 12/01/2011	3. DRL Line Item No. MGMT-13	RFP/Contract No. (Procurement completes) NNJ13HA01C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) To describe the Contractor's planned approach to meeting Small Business Subcontracting.		5. DRD Category: (<i>check one</i>) <input type="checkbox"/> Technical <input checked="" type="checkbox"/> Administrative <input type="checkbox"/> SR&QA	
6. References (<i>Optional</i>)		7. Interrelationships (<i>e.g., with other DRDs</i>) MGMT-01 Contract Management Plan MGMT-03 Contract Management Report	
8. Preparation Information (<i>Include complete instructions for document preparation</i>) A. SCOPE: To describe the Contractor's planned approach to meeting Small Business Subcontracting. B. CONTENT: At a minimum, the offer shall address the following elements: 1. Identification of Small Businesses whose offer is part of the proposal 2. Qualifications of Small Businesses and Small Business personnel 3. Small Business Category and percentage of the proposal assigned for each subcontractor 4. Management approach to subcontracting with small disadvantaged, Women-owned, HUB Zone, Veteran Owned, and Service Disabled Veteran Owned businesses, and MSIs. 5. For future subcontracting: Area of work, percentage of contract that will be subcontracted, potential subcontractors and their small business subcategory classification. 6. For future subcontracting: Management strategy that will be used to assure subcontractors are qualified to perform the assigned contract scope. C. FORMAT: The Contractor's plan format shall comply with the environment associated with this data in the Engineering Directorate Design Data Management System. Small Business Subcontracting Plan shall be delivered in native format and be compatible with the JSC standard software loads. D. MAINTENANCE: See Data Requirements List (DRL). E. DISTRIBUTION: Distribution shall be in accordance with the DRL. F. APPLICABLE DOCUMENTS: FAR 52.219-9 Small Business Subcontracting NFS 1852.219.75 Reporting Requirements G. REPORTS: 1. Contractors are required to submit subcontracting data in the Electronic Subcontracting Reporting System (eSRS) which has replaced the paper Standard Form 294 and SF 295 Summary Subcontracting Reports. 2. All Contractors are required to register and file both types of subcontracting reports (SF 294 and SF 295 data) using the eSRS system. The web-site to register is www.esrs.gov . 3. In addition to eSRS submission, the Contractor shall provide a summary of small business data compared to established goals as part of DRD MGMT-03, Contract Management Report.			

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

1. DRD Title Contract Close-Out Plan	2. Date of current version 12/01/2011	3. DRL Line Item No. MGMT-14	RFP/Contract No. (Procurement completes) NNJ13HA01C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) To describe the Contractor's planned approach to close out the contract		5. DRD Category: (<i>check one</i>) <input type="checkbox"/> Technical <input checked="" type="checkbox"/> Administrative <input type="checkbox"/> SR&QA	
6. References (<i>Optional</i>)		7. Interrelationships (<i>e.g., with other DRDs</i>) MGMT-01 Contract Management Plan BP-10 Reprocurement Data Package	
8. Preparation Information (<i>Include complete instructions for document preparation</i>) A. SCOPE: This plan shall provide the details necessary to transition the contract to any follow-on contract, and to close out the existing contract. B. CONTENT: The Contract Closeout Plan content and deliverables shall include: <ol style="list-style-type: none"> 1. Implementation Strategy 2. Task description and schedule 3. Staffing Profile 4. Cost Estimate 5. Plan for delivery of final documentation, including electronic copies of all contract files C. FORMAT: The Contractor's format shall comply with the environment associated with this data in the Engineering Directorate Design Data Management System. The Contract Closeout Plan shall be delivered in native format and be compatible with the JSC standard software loads. D. MAINTENANCE: See Data Requirements List (DRL). E. DISTRIBUTION: Distribution shall be in accordance with the DRL. F. APPLICABLE DOCUMENTS:			

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

1. DRD Title Information Technology (IT) Capital Planning and Investment Control (CPIC)	2. Date of current version 12/01/2011	3. DRL Line Item No. IT-01	RFP/Contract No. (Procurement completes) NNJ13HA01C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) To document the Contractor's compliance with Federal and NASA IT CPIC Planning and Reporting regulations and requirements.		5. DRD Category: (<i>check one</i>) <input type="checkbox"/> Technical <input checked="" type="checkbox"/> Administrative <input type="checkbox"/> SR&QA	
6. References (<i>Optional</i>)		7. Interrelationships (<i>e.g., with other DRDs</i>)	
8. Preparation Information (<i>Include complete instructions for document preparation</i>) A. SCOPE: Information Technology (as defined in the Clinger-Cohen Act) is subject to certain scrutiny and reporting requirements as set forth in Legislative actions, Executive and Agency mandates, and directives. The Office of Management and Budget (OMB) Circular A-130 establishes the foundation for CPIC. OMB Circular A-11 establishes the guidelines and requirements for reporting to the Executive Branch. Any additional reporting requirements associated with the CPIC data collection and reporting process will be covered by this DRD. B. CONTENT: In conformation with CPIC process, the contractor shall participate in data collection and reporting efforts. The contractor shall furnish the data needed for NASA to comply with OMB reporting requirements including, but not limited, to those documented in OMB Circular A-11. Accurate and complete data submissions are to be made in a manner consistent with the reporting structure, and with the timeframes established for the JSC. Additionally, the Contractor shall submit its Fiscal Year (FY) spending plans for review, and approval prior, to the beginning of the FY. Format, reporting processes, and procedures will be provided annually, based on the JSC and Agency requirements. Examples of documentation, formats, processes, procedures, and structures can be provided upon request. However, all formats, processes, procedures, and structures are subject to changes. C. FORMAT: IT CPIC documentation shall be delivered in native format, and be compatible with the JSC standard software loads. D. MAINTENANCE: See Data Requirements List (DRL). E. DISTRIBUTION: Distribution shall be in accordance with the DRL. F. APPLICABLE DOCUMENTS: Clinger-Cohen Act OMB Circular A-130 OMB Circular A-11			

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

1. DRD Title Information Technology (IT) Security Program Plan and Reports	2. Date of current version 12/01/2011	3. DRL Line Item No. IT-02	RFP/Contract No. (Procurement completes) NNJ13HA01C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) To ensure that IT security reporting requirements are met for all IT systems utilized during work associated with TOs on this contract.		5. DRD Category: (<i>check one</i>) <input checked="" type="checkbox"/> Technical <input type="checkbox"/> Administrative <input type="checkbox"/> SR&QA	
6. References (<i>Optional</i>) NFS 1852.204-76: Security Requirements for Unclassified IT Resources NPR 2810.1A: Security of IT. OMB Circular A-130: Management of Federal Information Resources		7. Interrelationships (<i>e.g., with other DRDs</i>)	
8. Preparation Information (<i>Include complete instructions for document preparation</i>) A. SCOPE: All contracts that purchase, lease, network to, or otherwise utilize Government-funded IT (as defined by the Clinger-Cohen Act of 1996 and referenced by OMB Circular A-130) must comply with NASA IT Security Requirements. B. CONTENT: <u>IT SECURITY MANAGEMENT PROGRAM PLAN:</u> The Contractor shall submit an IT Security Management Program Plan for its unclassified technology information resources. This program plan shall describe the policy, processes, and procedures that will be followed to ensure appropriate security of IT resources that are developed, processed, or used under this contract. The Contractor's IT Security Management Program Plan shall be compliant with the IT security requirements in accordance with Federal and NASA policies as reference in OMB Circular A-130 (Security of Information Technology), and NPR2810.1A (Security of Information Technology). <u>IT SECURITY PLAN:</u> The Contractor shall have a line manager who is responsible for the contractor's systems in accordance with the definitions set forth in NPR2810.1. The IT security plan shall be kept up to date as changes to the baseline configuration of the system occur and shall be documented in the IT Security Plan. Note: An IT Security Plan is specific to a system or group of systems, while an IT Security Management Program Plan is defined as the elements a contractor has outlined to meet the IT Security requirements for interfacing with other contractors and NASA, training requirements and meeting the requirements in NPR 2810.1. <u>IT SECURITY AWARENESS TRAINING:</u> Per NASA requirements, employees subject to this contract shall complete the NASA provided IT security awareness training annually. Contractor provided IT security awareness training may be substituted by must be approved annually by NASA as a substitute. When substituted, per NPR 2810.1, the contractor shall provide evidence that periodic IT security awareness training has been met for all employees subject on this contract. The contractor shall submit periodic reports (as required by the CO) detailing the overall status of the annual training program. The annual training program is defined as the period from October 1 st through September 30 th . <u>INFORMATION ON EMPLOYEES IN SENSITIVE POSITIONS/ASSIGNMENTS REPORT:</u> The Information on Employees is Sensitive. ITS Positions/Assignments Report shall provide information annually for personnel screening as required by NASA Procurement Information Circular (PIC) 02-04, NPR 2810.1, and NPR 1600.1 on position risk. <u>SYSTEM ADMINISTRATOR SECURITY CERTIFICATION REPORT:</u> A list of lead system administrators shall be provided annually. This list will be used to ensure the contract, as outlined in PN 04-03, has met the system administrator's certification requirements. C. FORMAT: The product shall be in a Microsoft Office compatible format. D. MAINTENANCE: See Data Requirements List (DRL).			

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

E. DISTRIBUTION:

Distribution shall be in accordance with the DRL.

F. APPLICABLE DOCUMENTS:

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

1. DRD Title NASA Contractor Financial Management Report	2. Date of current version 12/07/2011	3. DRL Line Item No. BP-01	RFP/Contract No. (Procurement completes) NNJ13HA01C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) Provide a basis for reporting and evaluating cost and expenditure in support of this contract. The data contained in the reports must be auditable using Generally Accepted Accounting Principles. Supplemental cost reports submitted in addition to the NF 533 must be reconcilable to the NF 533.		5. DRD Category: (<i>check one</i>) <input type="checkbox"/> Technical <input checked="" type="checkbox"/> Administrative <input type="checkbox"/> SR&QA	
6. References (<i>Optional</i>) NPR 9501.2E: NASA Contractor Financial Management Reporting		7. Interrelationships (<i>e.g., with other DRDs</i>)	
8. Preparation Information (<i>Include complete instructions for document preparation</i>) NASA Form 533 (NF533) Reports: <u>The NF533 reports provide data necessary for the following:</u> <ol style="list-style-type: none"> 1. Projecting costs and hours to ensure that dollar and labor resources realistically support project and program schedules. 2. Evaluating contractors' actual cost and fee data, in relation to negotiated contract value, estimated costs, and budget forecast data. 3. Planning, monitoring, and controlling project and program resources. 4. Accruing cost in NASA's accounting system, providing program and functional management information, and resulting in liabilities reflected on financial statements Cost is a financial measurement of resources used in accomplishing a specified purpose, such as performing a service, carrying out an activity, acquiring an asset, or completing a unit of work or project. NASA Procedural Requirements (NPR) 9501.2E entitled "NASA Contractor Financial Management Reporting," or its most current revision, identifies the cost reporting requirements for a contract. The contractor shall provide several variations of the NF533; the format and variations are provided in Attachment 1. The NF533M and NF533Q reports are the official cost documents used at NASA for cost type, price redetermination, and fixed price incentive contracts. The data contained in the reports must be auditable using Generally Accepted Accounting Principles. Supplemental cost reports submitted in addition to the NF533 must be reconcilable to both the NF533M and NF533Q. NASA is required by law, to maintain accrual accounting, which requires cost to be reported in the period in which benefits are received, without regard to time of payment. Examples of accrual accounting for common cost elements reported on the NF533 are below:			

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

<u>Cost Elements</u>	<u>Definitions</u>
Labor	<p>Reported to NASA as hours are incurred. Labor is reported in the following classifications:</p> <ul style="list-style-type: none"> Direct Regular Labor Hours Direct Overtime Hours Total Direct Hours Indirect Regular Hours Indirect Overtime Hours Total Indirect Hours Total Hours Onsite WYEs/EPs (direct and indirect) Offsite WYEs/EPs (direct and indirect) Total WYEs/EPs (direct and indirect)
Equipment & Material (COTS)	Generally reported to NASA when received and accepted by the contractor.
Manufactured Equipment	Defined as any equipment that is produced to specific requirements that make it useless to anyone else without rework. Cost should be reported to NASA, as the equipment is being manufactured. The straight-line method for estimating accrued costs, or the use of supplemental information obtained from the vendor are acceptable methods used to calculate the cost accrual amount.
Leases	Reported to NASA using a proration over the life of the lease.
Travel	Reported to NASA as costs are incurred.
Subcontracts & Other Direct Costs	Actual and estimated costs reported by prime contractors shall include subcontractors' incurred costs for the same accounting period. Where subcontract costs are material, they should be separately identified on NF533 reports. The prime contractor shall include in the total cost of each subdivision of work, the accrued cost (including fee, if any) of related subcontractor effort. Subcontractors should, therefore, be required to report cost, to the prime contractor, using the accrual method of accounting. If the G&A and fee reported by a subcontractor are at the total subcontractor level, these costs must be allocated to specific sub-divisions of work. Data submitted by the subcontractor should be structured similar to the prime contractor's NF533 to enable the prime contractor to properly report to NASA. For Firm Fixed Price (FFP) subcontracts with a contract value greater than \$500,000, the prime contractor is required to document the methodology used to generate the subcontractor costs reported, and provide this information to the Contracting Officer and the JSC Deputy Chief Financial Officer of Finance. All subcontractor costs should be reported by the Governments' Fiscal Year.
Unfilled Orders	Reported as the difference between the cumulative cost incurred to date, and amounts obligated to suppliers and subcontractors.
Fee	Should be accrued as earned using a consistent and auditable method to determine the amount. For example: an acceptable method would be to use historical data to determine the amount to accrue each month. The fee should be reported on the NF533 following the "Total Cost" line. Award fee must be reported by the following categories: Base Fee, Fee Earned, Interim Fee, Provisional Fee, Potential Additional Fee, and Total Fee. If any of the above fee categories do not pertain, they should not be included in the NF533.
Prompt Payment Discounts	Cumulative cost reported to NASA should be the full incurred cost. The prompt payment discount amount taken should be reported as a separate line item on the NF533 below the cumulative cost amounts for the contract.

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

The chart below describes the data elements to be included in the NF533M:

Data Element Name **Description**

Reporting Category (RC)	Task Order, Work Breakdown Structure
Cost Incurred for Month (7a)	Prior month actual cost incurred for each RC (column 7a on NF533)
HR/WYE Incurred for Month (7a)	Prior month actual HR/WYE incurred for each RC (column 7a on NF533)
Contract prior month planned cost (7b)	Planned cost for prior month for each RC (column 7b on NF533)
Contract Government Fiscal Year Costs to Date	Actual costs incurred from beginning of the fiscal year to prior month actual costs for each RC (located between columns 7b and 7c on the NF533)
Contract ITD cost (7c)	Contract ITD cost for each RC (column 7c on NF533)
Contract planned ITD cost (7d)	Contract planned ITD cost for each RC (column 7d on NF533)
Current month estimated cost (8a)	Cost estimate for the current month for each RC (column 8a on NF533)
Current month estimated HR/WYE (8a)	HR/WYE estimate for the current month for each RC (column 8a on NF533)
Next month estimated cost (8b)	Estimated cost for next month for each RC (column 8b on NF533)
Balance of Contract	Balance of contract for the remaining estimate to complete for each RC (column 8c on NF533)
Government Fiscal Year Estimate at Completion	Estimated cost at completion for the current fiscal year (located between columns 8c and 9a on the NF533)
Contractor Estimate	Contractor estimate for the total estimate to complete entire scope of contract for each RC (column 9a on NF533)
Contract Value	Contract value based upon contract modifications for each RC (column 9c on NF533)
Unfilled orders outstanding	Unfilled orders outstanding at the end of the reporting period for each RC (column 10 on NF533)
Reporting Category level	Used by NASA's accounting system to determine the RC level
Reporting Category Identifier	Identifies if the RC is an actual Reporting Category or a Sub-Reporting Category Line Item Number

A Reporting Category (RC) correlates to a task order (TO), or Work Breakdown Structure (WBS) and is the level at which cost is reported on the NF533M. Each RC can have Sub-Reporting Category Line Item Numbers (CLINs), containing detailed cost elements that add up to a RC. The CLIN levels will need to be reported as requested in the Supplemental Reports (see Attachments #2 - #5). For certain task orders, it may be necessary to create sub-CLIN levels; these will also need to be reported as requested in the Supplemental Reports. **The contractor is required to coordinate with the NASA Resource Analyst assigned to the contract in order to establish and maintain the Reporting Categories, CLINS, and sub-CLINs the contractor shall use to comply with this data requirement.**

Column 7b (planned cost incurred/hours worked for the month) and 7d (cumulative planned cost incurred/hours worked) of the NF533M represent the negotiated baseline plan for the contract. There may not be a relationship between the estimates provided in columns 8 of the NF533M to columns 7b and 7d. Columns 7b and 7d represent the legally binding contract negotiated baseline plan plus all authorized changes.

Short and long-term cost estimates, which include all data entered in columns 8 and 9a on the NF533M and NF533Q reports, shall be based on the most current and reliable information available.

Prior period cost adjustments shall be reported in column 7a and 7c of NF533M and column 7a of the NF533Q as soon as identified with a footnote discussing the reasons for and amounts of the adjustments and time period the adjustment relates to, delineated by government fiscal year, if affecting more than one fiscal year.

Uncompensated overtime hours worked should be reported on NF533 reports as a separate line item, in the footnotes, or in supplemental reporting.

The due dates for the NF533M and NF533Q reports are outlined in Chapter 3 of NPR 9501.2E. The following is a summary of the NF533 due date requirements. These due dates do not include the initial due dates for the NF533M and NF533Q reports, which are stated earlier in this DRD.

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

NF533 Report	Due Date
<i>NF533M</i>	Due no later than the 10 th calendar day of the month. In the event the 10 th calendar day falls on a non-business day, the NF533M shall be due no later than the prior business day.
<i>NF533Q</i>	Due not later than the 15th calendar day of the month proceeding the quarter being reported.

The due dates reflect the date the NF533 reports are received by personnel on the distribution list, not the date the reports are generated or mailed by the contractor. It is critical that the NF533 reports are submitted in a timely manner to ensure adequate time for NASA to analyze and record the cost into the NASA accounting system.

If requested, the contractor shall also submit a flat file of the data contained in the NF533M report and/or Supplemental on the 10th calendar day of the month. Specific format and requirements are detailed in attachment #6. The file will be compatible for downloading into SAP, NASA's financial reporting system.

An initial NF533 report is required in the NF533Q format to be used as a baseline for the life of the contract (see Attachment #1 for format). The initial (baseline) NF533Q report shall be submitted by the contractor within 15 calendar days after the contract transition/phase in period has begun. The initial report shall reflect the original contract value detailed by negotiated reporting categories and shall be the original contract baseline plan. In addition to the initial (baseline) report, monthly NF533 reporting (NF533M) shall begin no later than 30 days after the incurrence of cost.

Monthly NF533 reporting is no longer required once the contract is physically complete, provided the final cost report includes actual cost only (no estimates or forecasts). The contractor must continue to submit monthly NF533 reports as long as estimates for the following period are included. If the final cost of a contract changes after the submission of the "final" contractor cost report, the contractor must submit a revised NF533 report in the month the cost change is recognized.

Personal Property & Equipment Reporting

For all Personal Property & Equipment, purchased or fabricated, the contractor must obtain:

1. Prior approval by the Contracting Officer (CO) or their delegated Property Administrator (PA)
2. The NASA Capitalization or Expense determination from the NASA Finance Property office.

These must be obtained prior to cost being incurred for the property acquisition/fabrication. This will help ensure appropriate 533 reporting for items identified as capital. The capitalization/expense determination governs the contractor cost reporting requirements associated with the acquisition.

For all Personal Property & Equipment, purchased or fabricated, determined by NASA to be Capital, the contractor cost reporting structure to NASA shall:

1. Report the costs of each capital asset (i.e., each individual end item deliverable) as a separate reporting category on the NF 533 or other required cost reporting format.
2. Maintain a reporting structure that allows for the contractor accumulation and reporting of cost separately for each identified capital asset (i.e., each individual end item deliverable).

Capital property is defined by NASA as personal property and equipment, acquired or fabricated, that NASA will have title to and that meets all of the following criteria:

1. Has a total acquisition value equal to, or greater than, \$100,000
2. Has a useful life equal to, or greater than, 2 years (no prototypes, test articles, one time use items, etc.) and is not intended for sale in the course of normal operations
3. Has been acquired or constructed with the intention of being used, or available for use, by NASA
4. Has a planned alternative use (current or future) on another project with a separate and distinct research objective.

For all Personal Property & Equipment, purchased or fabricated, determined by NASA to be Expense, the contractor is not required to report costs at the detail asset level i.e., as a separate reporting category on the NF 533 or other required cost reporting format.

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

The Center Finance Property Office makes the capitalization/expense determination based on information provided by the NASA Project Manager.

The Center finance property office acquires the information from the NASA Project Manager using the Form NF1739 Alternative Future Use Questionnaire (AFUQ) which is required for each asset valued at, or greater than, \$100k. The Center finance property office may utilize a supplemental questionnaire and/or additional communication with the project manager, or their associates, to ensure adequate information is obtained to make the appropriate accounting treatment determination i.e., to Capitalize or Expense the asset.

Supplemental Financial Status Reports and Variance Reports

The contractor shall submit the supplemental reports listed below as well as those detailed in attachment #5. Initial supplemental reports are due within 30 days after the incurrence of cost; thereafter, they are due by the 10th calendar day of the month in conjunction with the NF533M report unless otherwise noted. These supplemental reports should report all data at the CLIN level unless otherwise noted. **The contractor is required to coordinate with the NASA Resource Analyst assigned to the contract in order to establish and maintain the CLIN and sub-CLIN levels the contractor shall use to comply with these requirements.**

1. Supplemental Management and Administration Cost (MAC) Report (See Attachment #2)
2. Supplemental Indefinite-Delivery-Indefinite-Quantity (IDIQ) Report (See Attachment #3)
3. Supplemental Contract Summary Report (See Attachment #4)

The contractor shall also submit variance reports when variances exceed +/-5% as described below. Variance reports are due by the 15th calendar day of the month.

Report	Variance Analysis Requirement
NF 533M Contract Summary Report	Column 7A current month to 8A previous month (only if exceed \$10K)
NF 533M MAC Report	Columns 9A and 9B (only if exceed \$50K)
NF 533M IDIQ Report	Columns 9A and 9B(only if exceed \$50K)
Supplemental MAC Report	Columns 9A & 9B per CLIN(only if exceed \$50K) Column 7A current month to 8A previous month per CLIN
Supplemental IDIQ Report	Columns 9A & 9B per CLIN(only if exceed \$50K) Column 7A current month to 8A previous month per CLIN (only if exceed \$10K)

Attachment #2 – Supplemental Management and Administrative Cost Report

Per the Statement of Work section 1.1.2, Financial Management, the contractor is required to develop and implement a method of tracking and applying all costs associated with the implementation of work requested in the SOW Section 1. These costs will be known as “Management and Administration Costs” (MACs). The contractor shall submit a Supplemental Management and Administration Cost (SMAC) Report each month, which should follow the format below. There can be minor changes if approved by the NASA Resources/Program Analyst and CO. Please note that this report is submitted by task order, with reporting requirements at the CLIN and, where appropriate, the Sub-CLIN level.

[illegible]

Additionally, the SMAC Report should include a summary of all MACs by task order, CLIN, and SubCLIN (where appropriate) in the following format:

[illegible]

The totals from the SMAC Summary should match the totals from the NF533M MAC Report.

Attachment #2 – Supplemental Management and Administrative Cost Report

Finally, the S:MAC Report should include a summary of all :MACs broken out by the Statement of Work Section 1 WBS structure.

Monthly SMAC Report				Summary- By SOW WBS					Contract Value:			
To: National Aeronautics and Space Administration				From: CONTRACTOR								
WBS Costs	Cost Incurred					Estimate to Complete			Est. Final Cost			Unfilled Orders Outstanding
	Month		GFY Costs to Date	Cum to Date		Current Month Sa	Next Month Sb	Balance of Contract Sc	Government Fiscal Year EAC	Contractor Estimate 9a	Contract Value 9b	
	Actual 7a	Planned 7b		Actual 7c	Planned 7d							
1.1.1Contract Management Costs												
1.1.2 FinancialManagement Costs												
1.1.3 Property Management Costs												
1.1.4 Data Management Costs												
1.1.5 Procurement Costs												
1.2.1Safety and Health Costs												
1.2.2 Environmental Costs												
1.2.3 QualityManagement Costs												
1.2.4 ConfigurationManagement Costs												
Total												

Attachment #3 – Supplemental Indefinite Delivery Indefinite Quantity Report

The Contractor shall submit a Supplemental Indefinite-Delivery-Indefinite-Quantity (SIDIQ) Report. This report should follow the format below, but can have minor changes if approved by the NASA Resources Analyst and CO. The contractor should work with the NASA Resource Analyst to determine which Cost Elements will be needed. Please note that this report is submitted by Task Order, with reporting requirements at the CLIN and, where appropriate, the Sub-CLIN level.

Monthly Supplemental IDIQ Report				00/TO						Contract Value:			
To: National Aeronautics and Space Administration				From: CONTRACTOR									
		Cost Incurred/Hours		worked		Estimate to Complete			Est. Final Cost/Hours			Unfilled Orders Outstanding 10	
00/TO		Month		GFY Costs to Date		Cum to Date			Government Fiscal Year EAC				
		Actual 7a	Planned 7b		Actual 7c	Planned 7d	Current Month 8a	Next Month 8b	Balance of Contract 8c	Contractor Estimate 9a	Contract Value 9b		
DO/TO Summary													
	Cost Element 1												
	Cost Element 2												
	Cost Element 3												
	Total Cost												
	Fee												
	Total Cost plus Fee												
	Onsite WYEs												
	Offsite WYEs												
DO/TO , CLIN , SubCLIN													
	Cost Element 1												
	Cost Element 2												
	Cost Element 3												
	Total Cost												
	Fee												
	Total Cost plus Fee												
	Onsite WYEs												
	Offsite WYEs												
DO/TO , CLIN , SubCLIN													
	Cost Element 1												
	Cost Element 2												
	Cost Element 3												
	Total Cost												
	Fee												
	Total Cost plus Fee												
	Onsite WYEs												
	Offsite WYEs												

Attachment #3 – Supplemental Indefinite Delivery Indefinite Quantity Report

Additionally, the SIDIQ Report should include a summary of all IDIQ costs by task order, CLIN, and Sub CLIN (where appropriate) in the following format:

Monthly Supplemental IDIQ Report			Summary					Contract Value: _____				
To: National Aeronautics and Space Administration			From: CONTRACTOR									
	Cost Incurred			Estimate to Complete		Est. Final Cost				Unfilled		
	Month			Cum to Date		Current	Next Month	Balance of	Government	Contractor	Contract	
	Actual	Planned	GFY Costs	Actual	Planned	Month	8b	Contract	Fiscal Year	Estimate	Value	
	7a	7b	to Date	7c	7d	8a		8c	EAC	9a	9b	
DO/TO ____, CLIN ____, SubCLIN ____												
DO/TO ____, CLIN ____, SubCLIN ____												
DO/TO ____, CLIN ____, SubCLIN ____												
DO/TO ____, CLIN ____, SubCLIN ____												
DO/TO ____, CLIN ____, SubCLIN ____												
DO/TO ____, CLIN ____, SubCLIN ____												
DO/TO ____, CLIN ____, SubCLIN ____												
DO/TO ____, CLIN ____, SubCLIN ____												
DO/TO ____, CLIN ____, SubCLIN ____												
DO/TO ____, CLIN ____, SubCLIN ____												
DO/TO ____, CLIN ____, SubCLIN ____												
DO/TO ____, CLIN ____, SubCLIN ____												
DO/TO ____, CLIN ____, SubCLIN ____												
DO/TO ____, CLIN ____, SubCLIN ____												
Total												

The totals from the SIDIQ Summary should match the totals from the NF533M IDIQ Report.

Attachment #4 – Supplemental Contract Summary Report

The Contractor shall submit a Supplemental Contract Summary Report. The Supplemental Contract Summary Report should be a roll-up of the SIDIQ Report and the S:MAC Report. The report should follow the format below, but can have minor changes if approved by the NASA Resources Analyst and CO (these changes should mirror any changes made to the SIDIQ and S:MAC Reports). The Supplemental Contract Summary Report should be submitted by task order, with reporting requirements at the CLIN and, where appropriate, the Sub-CLIN level.

Monthly Supplemental Contract Summary Report				00/TO								Contract Value:	
To: National Aeronautics and Space Administration				From: CONTRACTOR									
		Cost Incurred/Hours			orked		Estimate to Complete			Est. Final Cost/Hours			Unfilled Orders Outstanding 10
00/TO		Month		GFY Costs to Date	Cum to Date		Current Month 8a	Next Month 8b	Balance of Contract 8c	Government Fiscal Year EAC	Contractor Estimate 9a	Contract Value 9b	
		Actual 7a	Planned 7b		Actual 7c	Planned 7d							
DO/TO Summary													
	Cost Element 1												
	Cost Element 2												
	Cost Element 3												
	Total Cost												
	Fee												
	Mgmt and Admin Costs												
	Total Cost plus Fee												
	Onsite WYEs												
Offsite WYEs													
DO/TO , CLIN , SubCLIN													
	Cost Element 1												
	Cost Element 2												
	Cost Element 3												
	Total Cost												
	Fee												
	Mgmt and Admin Costs												
	Total Cost plus Fee												
	Onsite WYEs												
Offsite WYEs													
DO/TO , CLIN , SubCLIN													
	Cost Element 1												
	Cost Element 2												
	Cost Element 3												
	Total Cost												
	Fee												
	Mgmt and Admin Costs												
	Total Cost plus Fee												
	Onsite WYEs												
Offsite WYEs													

Attachment #4 – Supplemental Contract Summary Report

Additionally, the Supplemental Contract Summary Report should include a summary of all costs by task order, CLIN, and SubCLIN (where appropriate) in the following format:

[illegible]

The totals from the Supplemental Contract Summary Report should match the totals from the NF533M Contract Summary Report.

Attachment #5 – Additional Supplemental Reports

Annual Accounting Calendar: The Contractor's accounting calendar shall be provided in electronic format to the LE resource analyst and LF6 Cost Accountant within 30 calendar days after the contract transition/phase-in period has begun. An updated accounting calendar shall be submitted annually thereafter in conjunction with the delivery of the September NF533M.

Contract Year	Month, Calendar Year	Accounting Period Start Date	Accounting Period End Date	Business Days in Accounting Period	Business Hours in Accounting Period
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Quarterly Estimate Report: If the Contractor's month-end reporting does not align with the last day of the calendar month, the Contractor shall provide a supplemental report for each calendar month ending a Government fiscal quarter (December, March, June, and September). The report shall be broken down by reporting category and CLIN, and should include the original and adjusted 533M Current Month Estimated Cost and Hours (8a) that reflect the estimated costs and hours accrued through the last day of the calendar month. All estimated costs shall include unfilled orders expected to be delivered during the adjusted period. The following format shall be used for this report:

A	B	C	D	E	F	G
Reporting Category/CLIN	533M Current Month Estimate (8a) - Costs	533M Current Month Estimate (8a) - Hours	Current Month Est. Adj. (Costs)	Current Month Est. Adj. (Hours)	Total Adj. Current Month Est. (Costs)	Total Adj. Current Month Est. (Hours)
					= B + D	= C + E

Unfilled Orders Report: Upon request, but at least quarterly, the Contractor shall submit a report detailing the unfilled orders outstanding (10). The report shall be broken down by reporting category and CLIN, and should include the item description, the originally reported delivery date and costs, updated delivery date and costs, justifications for delays of greater than 30 days, and justifications for changes in costs greater than 5%. The following format shall be used for this report.

Reporting Category/CLIN	Item Description	Original Estimated Delivery Date	Original Estimated Costs	Adjusted Estimated Delivery Date	Justification for delays greater than 30 days	Adjusted Estimated Costs	Justification for cost changes greater than 5%

Subcontractor Cost Breakout Report: When subcontractor costs are greater than \$2 million dollars per fiscal year per task order, the contractor shall submit a report detailing the subcontractor costs. The contractor shall provide this report for each requested Reporting Category and CLIN, and should include the various cost elements listed in the format and their costs and estimates. Other data elements may be requested on the task order. The following format shall be used for this report.

Reporting Category/CLIN	Cost Element	Month Actual	Month Plan	GFY Cost to Date	Cum Costs to Date	Next Month Estimate	Two Month Estimate	GFY EAC	Total EAC
	Labor								
	Travel/Training								
	Equipment & Materials								
	Other (specify)								
	Total								

Attachment #5 – Additional Supplemental Reports

Annual Economic Impact Assessment: The contractor shall submit answers to the following questions to the LE resource analyst annually, in conjunction with the delivery of the October NF533M. The answers should be estimates only, as this requirement is not intended to be an extensive exercise. The information provided will be rolled-up to create Center-level estimates, and will not identify any specific contract. This information will not be shared at the contract-level with anyone outside NASA.

If the economic impact questions change or additional detail is needed, the contractor shall have 10 business days to answer new questions from the date that the new questions are submitted to the contractor by the LE resource analyst.

What is the total average headcount for this contract in the prior fiscal year? (Please include in-directs and an estimate for your major subcontractors.)

For the total workforce indicated in the question above, approximately how many:

1. Work in the local Clear Lake-Houston area, including JSC? (JSC includes Sonny Carter Training Facility, and Ellington Field.)
2. Work outside the local Clear Lake-Houston area, but within the State of Texas?
3. Work in the Las Cruces, NM area, including WSTF?

What is the approximate dollar value of goods and services (including labor) purchased:

1. In the local Clear Lake-Houston area under this contract during the prior fiscal year?
2. Outside the local Clear Lake-Houston area but within the State of Texas?
3. In the Las Cruces, NM area?

Attachment #6 – Flat File

Flat File Requirements

In addition to submitting the NF533M in an electronic format suitable for printing, the Contractor shall submit the NF533 electronically in a flat file by the same due date. The data shall be submitted via email using the Government prescribed flat file format (see attached Agency Defined File Format for an example of the layout details) and shall include the following header information from the formatted copy.

Data Element	Description
Contract Number	NASA assigned contract number
Modification Number	Latest definitive Modification Number
Accrual Date	Date the data was generated for
Report Period End Date	Period ending date of the NF533
Operating Days	Number of operating days for the current NF533
Date Received/Submitted	Date the report is submitted
CCR Format	Monthly (NF533M) or Quarterly (NF533Q)
Cost Unit of Measure	Unit of measure used to report cost on the NF533 report
HR/WYE Unit of Measure	Unit of measure used to report Hours/Work Year Equivalents (WYEs) on the NF533 report
Authorized Contractor Representative	Name of Contractor Approving Officer
Authorized Contractor Representative Date Signed	Date the NF533 is approved and signed by the authorized Contractor Representative
Monthly Grand Total Cost Incurred (7a)	Grand Total Actual Monthly cost for the prior month (column 7a on the NF533)
Monthly Grand Total HR/WYE (7a)	Grand Total Actual monthly hours/WYEs for the prior month (column 7a on the NF533)
Monthly Grand Total Cost Planned (7b)	Prior month planned cost (column 7b on the NF533)
Grand Total Cost Incurred ITD (7c)	Grand total contract cost from Inception to Date (ITD) (column 7c on the NF533)
Grand Total Planned Cost (7d)	Grand total planned contract cost (column 7d on the NF533)
Grand Total Estimated Cost (8a)	Grand total current month cost estimate (column 8a on the NF533)

Attachment #6 – Flat File

Grand Total Estimated HR/WYE (8a)	Grand total current month HR/WYE estimate (column 8a on the NF533)
Grand Total Next Month Estimated Cost (8b)	Grand total next month cost estimate (column 8b on the NF533)
Grand Total Balance of Contract (8c)	Contract Balance for the remaining estimate to complete (column 8c on the NF533)
Grand Total Contractor Estimate (9a)	Contractor estimate to complete entire scope of contract (column 9a on the NF533)
Grand Total Contract Value (9b)	Contractor distribution of contract value by the reporting categories (column 9b on the NF533)
Grand Total Unfilled Orders Outstanding (10)	Unfilled order outstanding at the end of the reporting period (column 10 on the NF533)

The flat file shall be saved as a text file with no extension (do not include .txt after the file name) and named in strict accordance with the specific format described below.

File names must be provided in a specific format. Each file name will begin with the SAP 2 Character center abbreviation listed below. The contract number and date will be included in the file name as well. Below is a sample file name.

JOCFPS001_NNJ0000001_yyyy_mm_dd

SAP 2 Charter Center Abbreviations

Headquarters	HQ		Dryden	DR
Marshall	MA		Goddard	GO
Ames	AM		Stennis	ST
Glenn	GL		Johnson	JO
Langley	LA		Kennedy	KE

Attachment #6 – Flat File

Example File Format

Header (Non-Repeating Segment)

CCR Extension Data Element	Description	Contractor Initial Data Mapping	NF 533 Required/Optional	OTHER CCR Required/Optional	Field Name	St Pos	EndPos	Len	Format
HEADER:									
Record Type	Used by eGate to determine record type	=HD' for Header	Required	Required	RECORD_TYPE	1	2	2	CHAR
Contract Number	Contract Number (1b)	Header field—submitted with CONTRACTOR data or defaulted by interface or extension	Required	Required	CONTRACT_NUMBER	3	12	10	CHAR
	Latest definitive Modification Number(CR8197)				MOD_NUMBER	13	18	6	CHAR
Accrual Date	Date the data was generated for. Used by SAP as part of Oracle table key	Accrual Date. MM01YYYY, where MM is the Accrual Month and YYYY is the fiscal year	Required	Required	ACCRUAL_DATE	19	26	8	DATE MM01YYYY
Report Period End Date	Report Period End Date is a date(2)	Header field—submitted with CONTRACTOR data or defaulted by interface or extension	Required	Required	REP_END_DATE	27	34	8	DATE
Operating Days	Operating days (2).	Header field—submitted with CONTRACTOR data	Required	Optional unless Required by contract	OPER_DAYS	35	40	6	NUMERIC
Date Received	Date Received (1d)	System Date upon which the cost data is loaded into the CCR Extension	Required	Required	DATE_REC	41	48	8	DATE
CCR Format	M' for Monthly and Q' for Quarterly (SIR2047)	Submitted with CONTRACTOR data	Required	Required	CCR_FORMAT	49	49	1	CHAR

Attachment #6 – Flat File

CCR Extension Data Element	Description	Contractor Initial Data Mapping	NF 533 Required/ Optional	OTHER CCR Required/ Optional	Field Name	St Pos	EndPos	Len	Format
Cost Unit of Measure	Cost Unit of Measure (SIR2047)	Submitted with CONTRACTOR data	Required	Required	COST_UOM	50	51	2	CHAR
HR/WYE Unit of Measure	Hour/Work-Year-Equivalent Unit of Measure (SIR2047)	Submitted with CONTRACTOR data	Required	Required	HR_WYE_UOM	52	53	2	CHAR
	Authorized Contractor Representative – Name of Contractor Approving Officer (CR 8197)				AUTH_SIGNATURE	54	78	25	CHAR
	Authorized Contractor Representative Date Signed – Date CCR is approved/signed by authorized contractor representative(CR 8197)				AUTH_SIGNATURE_DATE	79	86	8	DATE MMDDYYYY
Grand Total Cost Incurred Month (7a)	The Grand Total Contract Prior Month Actual Dollars Column 7a reports actual costs for the prior month.	Submitted with CONTRACTOR data	Required.	Optional. Only required if lower detailed line item data is submitted in monthly batch file.	GT_COST_INCUR_MONTH	87	99	13	CURRENCY(2)
Grand Total HRWYE (7a)	The Grand Total Contract Prior Month Actual Hours Column 7a reports actual HR or WYE for the prior month.	Submitted with CONTRACTOR data	Required if detailed line item data is submitted in monthly batch file.	Required if detailed line item data is submitted in monthly batch file.	GT_HRWYE_PRIOR_MONTH	100	109	10	NUMERIC(1)
	The Grand Total Contract Prior Month Planned Dollars Column (7b) reports planned costs for				GT_COST_PLANNED_MONTH	110	122	13	CURRENCY (2)

Attachment #6 – Flat File

CCR Extension Data Element	Description	Contractor Initial Data Mapping	NF 533 Required/ Optional	OTHER CCR Required/ Optional	Field Name	St Pos	EndPos	Len	Format
	the prior month. (CR8197)								
Grand Total Cost Incurred ITD (7c)	The Grand Total Contract Cost Dollars Column 7c which represents Contract Cost Inception to Date	Submitted with CONTRACTOR data	Required. Does not require detailed line item data if provided from Cost Incurred Month (7a)	Required if detailed line item data is provided for this column	GT_ITD_COST	123	135	13	CURRENCY (2)
	Grand Total Contract Planned Cost Dollars Column (7d) which represents Planned Contract Cost Inception to Date(CR 8197)				GT_COST_PLANNED_ITD	136	148	13	CURRENCY (2)
Grand Total Estimated Cost (8a)	The Grand Total Contract Estimated Cost for first upcoming month, or Current Month Estimate for cost.	Submitted with CONTRACTOR data	Required	Required if detailed line item data is provided for this column	GT_EST_COST	149	161	13	CURRENCY (2)
Grand Total HRWYE (8a)	The Grand Total Contract Estimated Hours for first upcoming month, or Current Month Estimate for HRWYE.	Submitted with CONTRACTOR data	Required if detailed line item data is provided for this column	Required if detailed line item data is provided for this column	GT_HRWYE_FIRST_MONTH	162	171	10	NUMERIC (1)
Grand Total Next Month Estimated Cost (8b)	The Grand Total Contract Estimated Cost for second upcoming month or Next Month Estimate for cost.	Submitted with CONTRACTOR data	Required if detailed line item data is provided for this column	Required if detailed line item data is provided for this column	GT_NEXT_MONTH_EST	172	184	13	CURRENCY (2)
	Grand Total Balance of Contract for the remaining estimate to				GT_BALANCE_CONTRACT	185	197	13	CURRENCY (2)

Attachment #6 – Flat File

CCR Extension Data Element	Description	Contractor Initial Data Mapping	NF 533 Required/ Optional	OTHER CCR Required/ Optional	Field Name	St Pos	EndPos	Len	Format
	complete (CR 8197)								
	Grand Total Contractor Estimate for the total estimate to complete entire scope of contract (CR 8197)				GT_BALANCE_CONTRACTOR_ESTIMATE	198	210	13	CURRENCY (2)
	Grand Total Contract Value based upon Contract Modifications (CR 8197)				GT_CONTRACT_VALUE	211	223	13	CURRENCY (2)
	Grand Total Unfilled Orders Outstanding at end of reporting period (CR 8197)				ST_UNFILLED_ORDERS	224	236	13	CURRENCY (2)

Attachment #6 – Flat File

Example File Format

Detail (Repeating Segment)

CCR Extension Data Element	Description	Contractor Initial Data Mapping	NF 533 Required/ Optional	OTHER CCR Required/ Optional	Field Name	St Pos	End Pos	Len	Format
CCR DETAIL LINE ITEMS:									
Record Type	_DM' for Monthly column 7a Detail; _DQ' for ITD Column 7c Detail	-RDI' for Detail	Required	Required	RECORD_TYPE	1	2	2	CHAR
Reporting Category	Reporting Category (6)	Line item field—submitted with CONTRACTOR data	Required	Required	SERV_ORD_CAT	3	26	24	CHAR
Cost Incurred Month (7a)	Prior Month incurred costs (ACTUALS) for given category.	Line item field—submitted with CONTRACTOR data	Required if detailed line item data is not provided from Cost Incurred Month (7c)	Determined by contract requirement- data from Column 7a, 7c or 8a	COST_INCUR_MONTH	27	39	13	CURRENCY (2)
HR/WYE Incurred Month (7a)	Prior month incurred hours worked [Actuals] for given category.	Line item field—submitted with CONTRACTOR data	Optional unless Required by contract for WYE calculation	Optional unless Required by contract for WYE calculation	HRWYE_INCUR_MONTH	40	49	10	NUMERIC (1)
	Contract Prior Month Planned Dollars Column (7b) reports planned costs for the prior month (CR 8197)				COST_PLANNED_MONTH	50	62	13	CURRENCY (2)
	Contract Cost Dollars Column (7c) which represents Contract Cost Inception to Date (CR 8197)				CUR_COST_INCUR_ITD	63	75	13	CURRENCY (2)
	Contract Planned Cost Dollars Column (7d) which represents Planned Contract Cost Inception to Date (CR 8197)				COST_PLANNED_ITD	76	88	13	CURRENCY (2)
Current Month Estimated Cost (8a)	Estimated costs for first upcoming month for given category.	Line item field—submitted with CONTRACTOR data	Required.	Determined by contract requirement- data from Column 7a, 7c or 8a	CUR_MONTH_EC	89	101	13	CURRENCY (2)
HR/WYE Current Month Estimate (8a)	Estimated hours for first upcoming month for given category. Will only be needed if labor hours are required to be submitted electronically per contract.	Line item field—submitted with CONTRACTOR data	Optional unless Required by contract for WYE calculation	Optional unless Required by contract for WYE calculation	HRWYE_CUR_MONTH_EST	102	111	10	NUMERIC (1)
Next Month Estimated	Estimated costs for second upcoming month for given category.	Line item field—submitted with	Required unless not part of Contract	Required unless not part of Contract	NEXT_MONTH_EC	112	124	13	CURRENCY (2)

Attachment #6 – Flat File

CCR Extension Data Element	Description	Contractor Initial Data Mapping	NF 533 Required/ Optional	OTHER CCR Required/ Optional	Field Name	St Pos	End Pos	Len	Format
Cost (8b)		CONTRACTOR data	scope	scope					
	Balance of Contract for the remaining estimate to complete (8c) (CR 8197)				BALANCE_CONTRACT	125	137	13	CURRENCY (2)
	Contractor Estimate for the total estimate to complete entire scope of contract (9a) (CR 8197)				CONTRACTOR_ESTIMATE	138	150	13	CURRENCY (2)
	Contract Value based upon Contract Modifications (CR 8197)				CONTRACT_VALUE	151	163	13	CURRENCY (2)
	Unfilled Orders Outstanding at end of reporting period (CR 8197)				UNFILLED_ORDERS	164	176	13	CURRENCY (2)
	Used by SAP to determine Reporting Category Level (1.1.2.2.1) (CR 8197)				REPORTING_LEVEL	177	206	30	CHAR
	Fill in an -Xl if record is a Reporting Category. Otherwise, leave blank for Sub-Reporting Category Line Items and Element of Cost detail records. This field is used by SAP to determine if the record is a Reporting Category. (CR 8197)				REPORTING_CAT_INDICATOR	207	207	1	CHAR

Example File Format

Trailer (provides the number of header & detail records sent from the contractor/vendor/center in order to verify the receipt of complete data after transmission)

CCR Extension Data Element	Description	Contractor Initial Data Mapping	NF 533 Required/ Optional	OTHER CCR Required/ Optional	Field Name	Start Pos	End Pos	Length	Format
TRAILER:									
Record Type	Used by eGate to determine record type	-TLII for Trailer	Required	Required	RECORD_TYPE	1	2	2	CHAR
Record Count	Count of the number of Detail records sent to process (Detail Only)	Trailer field submitted with CONTRACTOR data	Required	Required	RECORD_COUNT	3	9	7	NUMERIC
	Value of spaces				FILLER	10	207	198	CHAR

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

1. DRD Title Data Management Plan	2. Date of current version 12/01/2011	3. DRL Line Item No. BP-02	RFP/Contract No. (Procurement completes) NNJ13HA01C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) To provide a description of the Contractor's Data Management Organization approach and processes.		5. DRD Category: (<i>check one</i>) <input type="checkbox"/> Technical <input checked="" type="checkbox"/> Administrative <input type="checkbox"/> SR&QA	
6. References (<i>Optional</i>)		7. Interrelationships (<i>e.g., with other DRDs</i>)	
8. Preparation Information (<i>Include complete instructions for document preparation</i>) A. SCOPE: The Data Management Plan describes the contractor's overall implementation of the data management requirements specified in the contract as integrated by the prime contractor and subcontractors and as planned for each phase of contracted activity. B. CONTENT: The Data Management Plan shall contain the following sections: <u>Data Management</u> - This section shall define the scope and depth of the Contractor's efforts including management, organization, planning, and the relationship of the Data Management program to the Contractor's other administrative and technical organizations. The plan shall specify the Contractor's management policies and identify, by specific reference, standard practices and detailed work instructions to be used in implementing the Data Management program. The plan shall include the following elements: management organization, control procedures, storage and retrieval procedures, subcontractor control procedures, and special restrictions. The plan shall include a preliminary data submittal schedule for fulfilling submittal of data in the specified quantities, specific media (electronic, paper, other), and due dates required. <u>Document Development</u> - This section shall define the procedures, policies, and formats used to produce, and distribute document contract deliverables. The section shall include specifics on document metadata and numbering schema, and shall reference the contractors' documentation that is used to define internal layout and format requirements, and specific document setup practices that ensure appropriate hardcopy and/or electronic output. C. FORMAT: The Contractor's format shall be within the environment associated with this data in the Engineering Directorate Design Data Management System (DDMS). The Data Management Plan shall be delivered in native format and be compatible with the JSC standard software loads. D. MAINTENANCE: See Data Requirements List (DRL). E. DISTRIBUTION: Distribution shall be in accordance with the DRL. F. APPLICABLE DOCUMENTS:			

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

1. DRD Title Flight Products Configuration Management Plan	2. Date of current version 12/01/2011	3. DRL Line Item No. BP-03	RFP/Contract No. (Procurement completes) NNJ13HA01C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) The DRD describes the Contractor's plan to control the configuration of hardware and/or software during development, production, certification, and deployment of both qualification and flight hardware within the contractor's facilities, subcontractor's facilities, and those of NASA at JSC.		5. DRD Category: (<i>check one</i>) <input type="checkbox"/> Technical <input checked="" type="checkbox"/> Administrative <input type="checkbox"/> SR&QA	
6. References (<i>Optional</i>) NASA-STD-0005: Configuration Management Requirements JPR 1281.8: Product Identification and Traceability MIL-STD-973: Configuration Management		7. Interrelationships (<i>e.g., with other DRDs</i>) RV-08 Engineering Drawings and Model Files SW-04 Software Code TD-03 Flight Product Critical Design Review (CDR) Data Package	
8. Preparation Information (<i>Include complete instructions for document preparation</i>) A. SCOPE: The plan shall describe the Contractor's Management approach and planned implementation methods for maintaining configuration control of qualification and flight hardware and software during the design, development, production, certification, verification, and deployment within its facilities, its subcontractor's facilities, and facilities at NASA/JSC. It defines to the Government how the contractor will maintain records, documentation, drawings, and reports necessary for NASA, to assure that Configuration Management (CM) is maintained throughout the life of the flight product. Astromaterials Research and Exploration Science (ARES) Directorate, does not develop or process flight hardware, so this DRD is not applicable to ARES. B. CONTENT: The Flight Products CM plan shall address, as a minimum the following: 1.0 Management Organization – this section shall describe and graphically portray the Contractor's organization with emphasis on the CM activities, and shall include: a. Identification, relationships, and integration of Contractor's organization. b. Identification of the Contractor's CM organization and its responsibilities. c. Responsibility and authority for CM of all participating groups, and organizations including their role in production, configuration control boards, and technical reviews. d. Interfaces between contractor's CM organization and NASA, subcontractors, and other contractor's/contracts. e. Training plans f. Process for conducting reviews (e.g. SRR, PDR, CDR, SAR, etc.). g. Plan for providing NASA with real time access (electronic or otherwise) to all configuration management and engineering data. 2.0 Configuration Identification - this section shall describe the contractor's processes for Configuration Identification: a. Selection of Configuration Items (CIs) (Hardware, Computer Software Configuration Item (CSCI's), and firmware). b. Establishment of the functional allocated, and product baselines for hardware and software, and definition of the configuration documentation required for each. c. Engineering release and correlation of manufactured products. d. Identification of design responsibility (use of CAGE code). e. Assignment and application of configuration identifiers including: document numbers, nomenclature, serial numbers, and part numbers to hardware, lot codes, software, and firmware identifiers. f. Part marking, including marking to identify discrepant items and marking to identify flight like items that are not qualified for flight use. 3.0 Configuration Control - this section shall describe the sequence of events and milestones for implementation of CM during the contract phase in with major milestones and events including as a minimum: a. Release and submittal of configuration documentation in relation to program events (e.g. technical reviews). b. Establishment of internal configuration and contractual baselines. c. Implementation of internal and NASA configuration control. d. Establishment of configuration control boards and processes. e. Identification of processes to document changes.			

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

4.0 Configuration Status Accounting (CSA) - this section shall describe the Contractor's processes for CSA:

- a. Hardware and Software CSA processes and provisions for reports and/or access to CSA data.
- b. Methods for collecting, recording, processing and maintaining data necessary to provide contractual status accounting information via reports and/or data base access.
- c. Description and methods of processes and tools to provide:
 - i. Identification of current approved configuration documentation and configuration identifiers associated with each CI.
 - ii. Status of proposed engineering changes from initiation to implementation.
 - iii. Waiver/deviation status and processing.
 - iv. Results of configuration audits; status and disposition of discrepancies.
 - v. Traceability of changes from baselined documentation.
 - vi. Effectivity and installation status of configuration changes to all CIs.
 - vii. Limited Life Items List.
- d. Methods of access to information in status accounting information systems and/or frequency of reporting and distribution.

5.0 Configuration Verification/Audits - this section shall describe the contractor's processes for Configuration Verification:

- a. Processes, plans, documentation, and schedules for internal CM audits.
- b. Format for reporting results of in-process configuration audits.
- c. Methods used by the contractor to ensure its subcontractor(s) compliance with Configuration Management requirements.

6.0 Data Management - this section shall describe the Contractor's methods for meeting the Configuration Management technical data requirements:

- a. Development, approval, release and submittal of configuration data/documentation (including drawings) in relation to program and contractual events (DRD's, Technical Reviews, FCA/PCA, Acceptance Reviews, COFR, etc.).
- b. Plan for subcontractor data management deliveries/control access.
- c. Establishment and operation of Engineering Release Unit and CM receipt desk.
- d. Process for Documentation control (i.e., DCNs).
- e. Retention of historical data.
- f. Systems and tools.

The Flight Products Configuration Management Plan shall describe the process to be used for performing electronic configuration management of native files/models and data for each discipline and for subcontractors performing engineering, manufacturing, inspection, testing, procurement, and maintenance. The Configuration Management shall encompass the entire life cycle of the product.

Examples of disciplines and native files include but are not limited to the following:

- a. Mechanical Design:
 - i. CAD Model (Pro/E, Unigraphics, etc.)
- b. Structural Analysis:
 - i. Pre & Post-process Finite Element Model (Patran, Ideas, etc.)
 - ii. Numerical Analysis input (NASTRAN, FEMAP, ANSYS, etc.)
 - iii. Manual Analysis (Excel, MathCAD, etc.)
- c. Thermal Analysis:
 - i. Pre & Post-process (TSS, Thermal Desktop, Sinda/Fluint, etc.)
 - ii. Manual Analysis (Excel, MathCAD, etc.)
- d. Power:
- e. Electrical Design:
 - i. Circuit Board design (Orcad, Altium, etc)
- f. Aerodynamic:
- g. Aero thermal:
- h. Testing:

The plan shall also describe the Configuration Management organization activities, processes, and systems to be employed to support the NASA change evaluation and control process for the approval. In addition, the plan shall describe the process for levying requirements on subcontractors and the monitoring of those subcontractors. Also, the plan shall describe the contractor

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

process for compiling, reviewing, and maintaining the Acceptance Data Package (ADP) in accordance with SSP 30695, Acceptance Data Package Requirements Specification.

C. FORMAT:

The Contractor's format shall be within the environment associated with this data in the Engineering Directorate Design Data Management System (DDMS). The Flight Products Configuration Management Plan shall be delivered in native format, and shall be compatible with the JSC standard software loads.

D. MAINTENANCE:

See Data Requirements List (DRL).

E. DISTRIBUTION:

Distribution shall be in accordance with the DRL.

F. APPLICABLE DOCUMENTS:

EA-WI-027: Configuration Management Requirements
JPR 8500.4: JSC Engineering Drawing System Manual
SSP 30695: Acceptance Data Package Requirements Specification
SSP 41170: ISS Configuration Management (For ISS Deliverables)

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

1. DRD Title Patent Rights Retention	2. Date of current version 5/01/2014	3. DRL Line Item No. BP-06	RFP/Contract No. (Procurement completes) NNJ13HA01C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) Identification of any subject inventions including: Information on patent applications and related filings.			5. DRD Category: (<i>check one</i>) <input type="checkbox"/> Technical <input checked="" type="checkbox"/> Administrative <input type="checkbox"/> SR&QA
6. References (<i>Optional</i>) NFS Clause 1852.227-11 "Patent Rights-Retention by the Contractor (Short Form)"			7. Interrelationships (<i>e.g., with other DRDs</i>)
8. Preparation Information (<i>Include complete instructions for document preparation</i>) A. SCOPE: Inventions by the Contractor as part of their performance on this Government Contract. B. CONTENT: <ol style="list-style-type: none">1. A listing every twelve (12) months of all subject inventions required to be disclosed during the period.2. A final report prior to close-out, of the contract listing of all subject inventions or certifying that there were none.3. Upon request, the filing date, serial number, and title, a copy of the patent application, patent number, and issue date for any subject invention, in any country in, which the contractor has applied for patents. C. FORMAT: The Contractor's format shall be within the environment associated with this data in the Engineering Directorate Design Data Management System (DDMS) and shall be delivered in native format and be compatible with the JSC standard software loads.. D. MAINTENANCE: E. DISTRIBUTION: Distribution shall be in accordance with the DRL. F. APPLICABLE DOCUMENTS:			

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

1. DRD Title Reports Required for Logistics	2. Date of current version 12/01/2011	3. DRL Line Item No. BP-07	RFP/Contract No. (Procurement completes) NNJ13HA01C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) These reports are required to determine the effectiveness of the Property Management System and as indicators of the volume of logistics activity. These reports will be forwarded to NASA Headquarters.		5. DRD Category: (<i>check one</i>) <input type="checkbox"/> Technical <input checked="" type="checkbox"/> Administrative <input type="checkbox"/> SR&QA	
6. References (<i>Optional</i>)		7. Interrelationships (<i>e.g., with other DRDs</i>)	
8. Preparation Information (<i>Include complete instructions for document preparation</i>) A. SCOPE: The following reports are required to be prepared when on-site storage of \$75,000, for programs stock in one location. B. CONTENT: <ol style="list-style-type: none"> Data Input for NASA Form 1324, Semi-Annual Report of Personnel Property Management Operations. This semi-annual report defines the following line item data elements, of March 15 and September 15 of each year: <ol style="list-style-type: none"> Material Inventory Status Material Inventory Activity Material Acquisition Activity Material Receiving Activity Logistics Personnel Resources Report <u>Reference:</u> NPR 4100, NASA Materials Inventory Management Manual <u>Due Dates:</u> March 25 and September 25 Data Input for NASA FMD 1489, Semi-Annual Analysis of fixed inventory Assets <ol style="list-style-type: none"> This semi-annual report defines the following monetary data elements as of March 15 and September 15 of each year. Starting Price: Price of Receipts, Price of Issues, Ending Price <i>Note: This will be reported by each Object Class Code stocked in the storeroom. Separate reports are required for Stores, Programs and Standby stock (see the JSC Stocks Stock Catalog prefaces for a detailed explanation of these codes).</i> Reference: NPR 4100, NASA Materials Inventory Management Manual. Due Dates: March 25 and September 25 Forms for Data Input are available through JB3/Contract Property Management Branch web page http://www6.jsc.nasa.gov/ja/jb/jb3.cfm NASA Form 1619, Physical Inventory of Materials Annual Report: This annual report identifies the sampling inventory actions completed by the Contractor. This report contains the following data by Object Class Code (see the JSC Stores Stock Catalog preface for a detailed explanation of these codes.) <ol style="list-style-type: none"> Line items and dollar value of items inventoried. Number of line items with variance. Dollar value of discrepant items, including overage, shortage, and gross discrepancies. Identify whether inventory items are stores, program, or standby stock, and also identify the staff hours and dollar value expended in accomplishing and reconciling the inventory. A brief explanation of cause, of discrepancies, and actions to minimize the chance for recurrence. <u>Due Date:</u> September 25 <i>Note: All of the above are to treat Contractor-Acquired Material (CAM) and Government Furnished Material as one lot.</i> Quarterly Report of Contractor-Acquired material (CAM): This report will consist of two transfer documents (DD Form 1149) that identify material purchased, and received by the Contractor for on-site use. The two documents will be differentiated as follows: <ol style="list-style-type: none"> Items bought for direct consumption on site. Items issued to storeroom(s) that will impact the dollar value of assets on hand. The DD Form 1149 will be transferring accountability of these assets to NASA and will be accompanied by requisitions, issue documents, engineering work orders (if flight material destined for a bond room), or any other similar form approved for use by the JSC Property Administrator. The DD Form 1149 shall identify total number of 			

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

line items and total value.

Due Date: 15 working days after the end of the Quarter/Fiscal Year.

5. Annual Report of Exchange/Sale:
 - a. As defined by the NASA Property Administrator
 - b. Transaction submitted 15 days after the end of each Government Fiscal Year.

C. FORMAT:

Forms for Data Input are available through JB3/Contract Property Management Branch web page

<http://www6.jsc.nasa.gov/ja/jb/jb3.cfm>

D. MAINTENANCE:

See Data Requirements List (DRL).

E. DISTRIBUTION:

Distribution shall be in accordance with the DRL.

F. APPLICABLE DOCUMENTS:

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

1. DRD Title Government Property Management Plan	2. Date of current version 12/01/2011	3. DRL Line Item No. BP-09	RFP/Contract No. (Procurement completes) NNJ13HA01C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) To describe the method of administering and Controlling Government personal property.		5. DRD Category: (<i>check one</i>) <input type="checkbox"/> Technical <input checked="" type="checkbox"/> Administrative <input type="checkbox"/> SR&QA	
6. References (<i>Optional</i>) Clause 52.245.1 Government Property		7. Interrelationships (<i>e.g., with other DRDs</i>)	
8. Preparation Information (<i>Include complete instructions for document preparation</i>)			
<p>A. SCOPE: The Government Property Management Plan defines the Contractor's use, maintenance, repair, protection, and preservation of Government personal property. It shall describe the Contractor's approach to receiving, handling, stocking, maintaining, protecting, and issuing Government property. The Plan should include interaction and Department Office responsibilities. The delegated Property Administrator will request detailed procedures after contract start date.</p> <p>B. CONTENT: This plan shall reference those policies and procedures, which constitute the Contractor's Property Management Manual and shall include at a minimum the following categories:</p> <ul style="list-style-type: none"> 1. Property Management 2. Acquisition of Property 3. Receipt of Government Property <ul style="list-style-type: none"> (a) Receiving (b) Identification 4. Records of Government Property 5. Physical Inventory 6. Subcontractor Control 7. Reports 8. Relief of Stewardship <ul style="list-style-type: none"> (a) Consumed/Loss, Theft, Damage, Destruction (b) Delivered (c) Contractor Inventory Disposal (d) Abandonment of Government Property 9. Utilizing Government Property <ul style="list-style-type: none"> (a) Utilization (b) Consumption (c) Movement (d) Storage 10. Maintenance 11. Property Closeout 12. Reconcile Contractor Records with NASA Financial Property Records 13. JSC-Unique Considerations <p>C. FORMAT: The Contractor's format shall comply with the environment associated with this data in the Engineering Directorate Design Data Management System (DDMS). The Government Property Management Plan shall be delivered in native format, and be compatible with the JSC standard software loads.</p> <p>D. MAINTENANCE: See Data Requirements List (DRL).</p> <p>E. DISTRIBUTION: Distribution shall be in accordance with the DRL.</p> <p>F. APPLICABLE DOCUMENTS: Federal Acquisition Regulation (FAR) 52.245-1. NASA FAR Supplement (NFS) Part 1845</p>			

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

1. DRD Title Re-procurement Data Package	2. Date of current version 12/01/2011	3. DRL Line Item No. BP-10	RFP/Contract No. (Procurement completes) NNJ13HA01C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) Provides requirements for delivery to NASA of information on specific items and supporting documentation related to resource/cost information to be used for re-procurement activities.		5. DRD Category: (<i>check one</i>) <input type="checkbox"/> Technical <input checked="" type="checkbox"/> Administrative <input type="checkbox"/> SR&QA	
6. References (<i>Optional</i>)		7. Interrelationships (<i>e.g., with other DRDs</i>)	
8. Preparation Information (<i>Include complete instructions for document preparation</i>) A. SCOPE: Provides requirements for delivery to NASA of information on specific items, and supporting documentation related to resource and cost information to be used for re-procurement activities. B. CONTENT: A data package shall be submitted containing the following resource and cost information: 1. Labor Resources: a. List of all direct labor skills by labor category, segregated by current Statement of Work (SOW) section. b. Estimate of the number of indirect labor skills, such as business or computer support, normally charged through an indirect expense pool or through a service center expense. c. Current average straight time labor rates for all skills by labor category, mapped by standard labor categories of the original Request for Proposal (RFP), or the standard labor categories defined in the follow-on RFP, if they differ from the original RFP and when these wages were last adjusted for escalation. Also, indicate whether any adjustments are projected to be made prior to the contract expiration. d. Number of Full Time Equivalents (FTEs) for each labor category currently on contract, mapped by standard labor category of the original RFP, or the standard labor categories defined in the follow-on RFP, if they differ from the original RFP, segregated by current SOW Section (1 FTE is defined as the work of a full time equivalent per year). e. Seniority level of all skills on the current contract. 2. Non-Labor Resources: a. Provide total non-labor cost incurred for most recent 12 months, separated by type of expense to include categories for travel and training. C. FORMAT: The Contractor's format shall comply with the environment associated with this data in the Engineering Directorate Design Data Management System (DDMS). The Re-procurement Data Package shall be delivered in native format, and be compatible with the JSC standard software loads. D. MAINTENANCE: See Data Requirements List (DRL). E. DISTRIBUTION: Distribution shall be in accordance with the DRL. F. APPLICABLE DOCUMENTS:			

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

1. DRD Title Quality Plan	2. Date of current version 12/15/2011	3. DRL Line Item No. SMA-01	RFP/Contract No. (Procurement completes) NNJ13HA01C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) The quality Plan is used to document the specific details of the Contractor's Quality Management System (QMS) related to off-site specific product or process.		5. DRD Category: (<i>check one</i>) <input type="checkbox"/> Technical <input type="checkbox"/> Administrative <input checked="" type="checkbox"/> SR&QA	
6. References (<i>Optional</i>)		7. Interrelationships (<i>e.g., with other DRDs</i>) RV-10 Flight Products Verification and Validation Plan	
8. Preparation Information (<i>Include complete instructions for document preparation</i>) A. SCOPE: A contract specific Quality Plan shall be prepared which identifies activities performed off-site of JSC to ensure quality products and services. The Quality Plan shall be in accordance with SAE AS9100C, Quality Management Systems-Requirements for Aviation, Space and Defense Organizations. B. CONTENT: The Quality Plan shall address each element of the SAE AS9100 "Quality Management Systems - Requirements for Aviation, Space and Defense Organizations" in enough detail to describe how requirements will be implemented for this contract. C. FORMAT: The Quality Plan format shall match the elements of SAE AS9100 and shall also address supplements contained in Sections C and E of the contract. The plan shall be delivered electronically to the Design Data Management System (DDMS) in native format and be compatible with standard JSC office software loads. D. MAINTENANCE: See Data Requirements List (DRL). E. DISTRIBUTION: Distribution shall be in accordance with the DRL. F. APPLICABLE DOCUMENTS: SAE AS9100C: Quality Management Systems-Requirements for Aviation, Space and Defense Organizations			

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

1. DRD Title Electrical, Electronic, and Electromechanical (EEE) Parts Control Plan	2. Date of current version 12/01/2011	3. DRL Line Item No. SMA-02	RFP/Contract No. (Procurement completes) NNJ13HA01C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) To define and document the Contractor's requirements, system and implementation plan for controlling the selection, acquisition, traceability, testing, handling, packaging, storage and application of EEE parts for flight and critical ground support equipment.		5. DRD Category: (<i>check one</i>) <input type="checkbox"/> Technical <input type="checkbox"/> Administrative <input checked="" type="checkbox"/> SR&QA	
6. References (<i>Optional</i>) 1. GEIA-HB-0005-1, Program Management/Systems Engineering Guidelines for Managing the Transition to Lead-Free Electronics 2. GEIA-HB-0005-2, Technical Guidelines for Aerospace and High Performance Electronic Systems Containing Lead-Free Solder and Finishes. 3. NASA Parts Selection List (NPSL) Web-site: http://nepp.nasa.gov 4. NASA Tin and Other Metal Whisker Web-site: http://nepp.nasa.gov/whisker		7. Interrelationships (<i>e.g., with other DRDs</i>) SMA-07 GIDEP and NASA Advisory Problem Data Sharing and Utilization Program Documentation and Reporting	
8. Preparation Information (<i>Include complete instructions for document preparation</i>) A. SCOPE: This DRD establishes the requirements for content, format, and maintenance of the EEE Parts Plan, which is used for controlling risk and enhancing reliability of EEE Parts used in flight and critical ground support equipment. The Contractor's plan shall implement NPD 8730.2, NASA Parts Policy, Attachment A: <i>Criteria to Mitigate Risks Associated with Lead-Free Solder and Surface Finishes</i> and use Attachment B: <i>Counterfeit Parts Control Plan Contents</i> as guidance for development of a control plan for the avoidance, detection, mitigation, disposition, control and reporting of counterfeit EEE parts. B. CONTENT: The contractor shall document, in an EEE Parts Control Plan, the features discussed below as a minimum. The plan shall demonstrate that the contractor has the technical expertise, documentation system and defined management roles and responsibilities to assure adequate implementation. 1. Parts Selection: The EEE Parts Control Plan shall describe a concurrent engineering process, integrated with hardware design, in which parts, materials, and packaging technology are selected for use based on their intended use considering, but not limited to, performance, environment, criticality, and mission lifetime requirements. (Information and guidance concerning parts selection is provided on the NASA Parts Selection List (NPSL), http://nepp.nasa.gov). The plan shall identify parts that are considered standard and how other (nonstandard) parts will be evaluated and approved as flight controlled. 2. Controlling Specifications: The EEE Parts Control Plan shall describe how parts shall be controlled by specifications that delineate as a minimum: a. Complete identification of the part b. Physical, environmental, and performance specifications c. Reliability requirements, including inspections and tests for qualification, acceptance, and lot sampling. d. Special handling, packaging, and storage requirements e. Documentation, data retention, and submittal requirements 3. Part Qualification: a. Parts shall be qualified to the requirements of the controlling specification. Part qualification shall demonstrate that the part meets its ratings, and that the manufacturer is using materials, processes, design, and quality controls that will produce a consistent, reliable, high quality device that is deemed suitable for the intended application. b. Where adequate qualification data are not available, the plan shall describe the process of qualification testing to demonstrate that the parts/meets its ratings. c. Parts shall be re-qualified in the event of manufacturer process changes, or when a new "lot" of qualified parts are procured and it cannot be documented that the parts manufacturer has not changed the materials, processes, equipment, or facility used to manufacture the part. d. The plan shall address how the contractor will maintain the documentation to support the "qualified status" of parts and the respective suppliers. 4. Design Configuration Acceptability and Control: The plan shall address how the selected parts for a design are reviewed for application and environmental suitability, how the parts quality and reliability will meet the operational performance requirements, and if the parts are being used within the specific device ratings (including the NASA de-rating policy). The selection process, technical acceptability of devices, and application documentation and review results shall be available to NASA to support hardware design reviews, certification, acceptance reviews, problem resolutions, and ground and flight			

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(Based on JSC-STD-123. See work page for instructions.)

operations. Key elements are as-designed-parts lists, application stress analyses (including radiation effects), and nonstandard parts acceptability assessments.

5. **Parts Procurement:** The plan shall address how the contractor will select, qualify, control, and monitor parts manufactures. The plan shall address the contractor's source inspections, receiving inspection (including destructive physical analysis), and pure tin purchasing controls (tin whisker growth mitigation), counterfeit parts control plan, and stocking and handling procedures prior to and during assembly. These procedures shall address how the contractor will mitigate the procurement and any subsequent installation of parts or "lots" of parts subject obsolescence and to conditions identified in GIDEP ALERTs or NASA Advisories. This section of the plan shall ensure that the selection and use of the parts will not have an "obsolescence" issue to the greatest extent possible.
6. **Radiation Effects:** The parts Control Plan shall include the following requirements:
 - a. It shall be shown by test or analysis that Single Event Upset (SEU) and/or total dose radiation effects will not cause EEE parts to fail or malfunction in such a manner as to cause a safety hazard or loss of a mission.
 - b. EEE parts that are used to control a hazard, or subsystem that control a hazard, shall be immune to the SEU and total dose radiation environment to which they will be exposed.
7. **Commercial Off-The-Shelf (COTS) hardware:** The plan shall address the use of COTS hardware for which insufficient parts information is available. In these cases, parts used in COTS hardware may be qualified by environmental and accelerated life testing of a complete COTS assembly.
8. **Documentation:** The plan shall define the contractor's electronic (preferred) or paper documentation system, data supporting milestones and design reviews, and NASA's access to the parts electronic data base and files.

C. FORMAT:

The data shall be entered into the Design Data Management System. The format may be varied to match the specific nature of the products being provided. The electronic data shall be delivered in native format and be compatible with standard JSC office software loads and standard engineering software.

D. MAINTENANCE:

See Data Requirements List (DRL).

E. DISTRIBUTION:

Distribution shall be in accordance with the DRL.

F. APPLICABLE DOCUMENTS:

1. NPD 8730.2: NASA Parts Policy
2. NPR 7120.5 (Para 4.5): NASA Program and Project Management Processes and Requirements
3. JPR 8730.1: Electrostatic Discharge Control Requirements for the Protection of Electronic Components and Assemblies
4. JSC 61360: Engineering Directorate Certified Parts Approval Process
5. SSP 30312: Electrical, Electronic, and Electromechanical (EEE) and Mechanical Parts Management and Implementation Plan for the International Space Station (ISS) Program
6. GEIA-STD-0005-1: Performance Standard for High Performance Electronic Systems Containing Lead-Free Solder
7. GEIA-STD-0005-2: Standard for Mitigating the Effects of Tin Whiskers in Aerospace and High Performance Electronics
8. SAE AS5553: Counterfeit Electronics Parts, Avoidance, Detection, Mitigation, and Disposition

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

1. DRD Title Safety and Health Plan	2. Date of current version 12/15/2011	3. DRL Line Item No. SMA-03	RFP/Contract No. (Procurement completes) NNJ13HA01C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) Establishes Safety and Health Compliance Plan for Contractors providing support to JSC Organizations.		5. DRD Category: (<i>check one</i>) <input type="checkbox"/> Technical <input type="checkbox"/> Administrative <input checked="" type="checkbox"/> SR&QA	
6. References (<i>Optional</i>) OSHA CSP 03-01-003, Voluntary Protection Program (VPP): Policies and Procedures Manual JSC 17773, Instructions for Preparation of Hazard Analysis for JSC Ground Operations JPR 1700.1 JSC Safety and Health Handbook		7. Interrelationships (<i>e.g., with other DRDs</i>) SMA-04 Safety and Health Program Self Evaluation SMA-05 Lessons Learned Program Plan and Lessons Learned	
8. Preparation Information (<i>Include complete instructions for document preparation</i>) A. CONTENT: Provides the Contractor's Safety and Health Plan. Review the plan annually or as directed by the CO and update as needed. The plan shall be updated to meet OSHA, JSC, and VPP requirements. Provide a copy of the updated plan with the changes highlighted to the distribution noted in the Distribution Requirements List (DRL) at the start of each contract year. If no changes are required after the annual review, notify the individuals in the distribution list in writing to that affect. B. FORMAT: 1. Cover page - to include as a minimum, blocks for the signatures of Contractor's project manager and designated safety official, NASA COTR, JSC Safety and Test Operations Division Chief, JSC Occupational Health Officer, and the NASA Contracting Officer. Other signatures may be required at the discretion of the Government. 2. Table of Contents. See content below. 3. Body of Plan – Contractor's format is acceptable but should be aligned with the elements of the content below. 4. When preparing its plan, the Contractor is expected to review all the items below and tailor its plan accordingly. Tailoring is the process of identifying those items that must be performed to assure the safety of the contractor's employees while performing work on the contract. The contractor is part of a larger program- the NASA safety program -which has other contracted employees, civil servants, and other third parties that must be protected from any hazard in the workplace wherever they arise. This includes the following: a. Hazards associated with work done on contractual tasks. b. Hazards that arise from non-contractual operations in the vicinity of contractor's workers. c. Hazards that arise from contractual operations which may affect the safety and health of individuals and assets outside this contract. 5. The plan shall clearly identify those resources to be provided by the Contractor and proposed resources to be provided by the Government. This review and supporting rationale is to be made available to the Government as part of this plan. It can be documented as a checklist or outline, inserted directly in the body of the plan, or in any format developed by the Contractor that clearly conveys the results of this review including, the basis for any underlying assumptions. 6. The plan must cover the prime contractor and all subcontractors. <p style="text-align: center;"><u>BODY OF PLAN DETAILS:</u></p> 1. MANAGEMENT LEADERSHIP AND EMPLOYEE PARTICIPATION 1.1 Policy. Provide the Contractor's safety and health compliance policy statement with the plan. Compare the Contractor's policy statement with those of NASA and OSHA and discuss any differences. 1.2 Goals and Objectives. Describe the approach to the following: 1.2.1 Specific annual safety and health goals and objectives to be met. 1.2.2 Methods to be used, if any, to improve on the Days Away Case Rate (DACR), the Total Recordable Injury Rate (TRIR), and the total Days Away plus Restricted duty plus job Transfer rate (DART). 1.3 Management Leadership. Describe management's procedures for implementing its sustaining commitment to safety and			

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(Based on JSC-STD-123. See work page for instructions.)

health compliance through visible management activities and initiatives including a commitment to exercise management prerogatives to ensure workplace safety and health. Describe processes and procedures to making this visible in all contract and subcontract activities and products. Include a statement from the project manager or designated safety official indicating that the plan will be implemented as approved and that the project manager will take personal responsibility for its implementation.

- 1.4 Employee Involvement. Describe procedures to promote, implement, and sustain employee (e.g., non-supervisory) involvement in safety and health compliance program development, implementation and decision-making. Describe the scope and breadth of employee participation to be achieved so that approximate safety and health risk areas of the contract are equitably represented. Describe methods to be used to obtain employee buy in and address the behavioral aspects of safety.
- 1.5 Assignment of Responsibility. Describe line and staff responsibilities for safety and health program implementation. Identify any other personnel or organization that provides safety services or exercises any form of control or assurance in these areas. State the means of communication and interface concerning related issues used by line, staff, and others (such as documentation, concurrence requirements, committee structure, sharing of the work site with NASA and other Contractors, or other special responsibilities and support). As a minimum, the Contractor shall identify the following:
 - 1.5.1 Safety Representative. Identify by title, the individual who will be trained and certified in accordance with JPR 1700.1 to be responsive to Center-wide safety, health and fire protection concerns and goals, and who will participate in meetings and other activities related to the JSC Safety and Health program.
 - 1.5.2 Company Physician/Occupational Injury/illness case manager. Identify a point of contact who is responsible for the transfer or receipt of company medical data and who will be the primary contact for the company in the event any employee suffers a work related injury or illness (such as the company physician) by name, address, and telephone number to the JSC Occupational Medicine Clinic, mail code SD32. This will facilitate communication of medical data to Contractor management. Prompt notification to the JSC Occupational Medicine Clinic shall be given of any changes that occur in the identity of the point of contact.
 - 1.5.3 Building Fire Wardens. Provide a roster of fire wardens at the start of each contract year (their names, telephone numbers and pagers, and mail codes). Contractor fire wardens are needed to facilitate the JSC fire safety program, including coordination of related issues with NASA facility managers and emergency planning and response officials and their representatives. Fire wardens will be trained in accordance with JPR 1700.1. The Roster shall be provided by letter to the JSC Safety and Test Operations Division, mail code NS2, with copies to the Contracting Officer and the Contracting Officers Representative (COR). The initial letter shall be received by the Government not later than 15 days after contract start.
 - 1.5.4 Designated Safety Official. Identify by title the official(s) responsible for implementation of this plan and all formal contacts with regulatory agencies and with NASA.
- 1.6 Provision of Authority. Describe consistency of the plan for compliance with applicable NASA and JSC requirements and contractual direction as well as applicable Federal, State, and Local regulations and how compliance will be maintained throughout the life of the contract.
- 1.7 Accountability. Describe procedures for ensuring that management and employees will be held accountable for implementing their tasks in a safe, healthful, and environmentally compliant manner. The use of traditional and/or innovative personnel management methods (including discipline, motivational techniques, or any other technique that ensures accountability) will be referenced as a minimum and described as appropriate.
- 1.8 Program Evaluation. Describe the approach to safety and health program evaluation. The program evaluation consists of:
 - 1.8.1 [RESERVED.]
 - 1.8.2 Annual Self Evaluation Report. An annual, written, self-evaluation report that shall be delivered to the Safety and Test Operations Division, mail code NS, the Occupational Health Officer, mail code SD33, the Contracting Officer and the COTR. The self-evaluation shall be provided for the Contractor performance evaluation. The self-evaluation shall follow

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the VPP program evaluation report format found in OSHA CSP 03-01-003, Voluntary Protection Program (VPP): Policies and Procedures Manual, Appendix C, "Format for Annual Submissions", as mandated by the cognizant OSHA regional office. Contractors who have submitted a written self-evaluation as a VPP site may submit their original report to OSHA in lieu of writing a new self-evaluation provided that all action plans and status are updated. The self-evaluation shall, as a minimum, cover the elements of the approved safety and health plan.

- 1.9 Miscellaneous Reports. The Contractor shall acknowledge the following as standing requests from the Government to be handled as described below.
 - 1.9.1 Roster of Terminated Employees. Identify personnel terminated by the Contractor. Submit per the DRL no later than 30 days after the end of each contract year. At the Contractor's discretion, the report may be submitted for personnel changes during the previous year or cumulated for all years. Information required:
 - a. Date of report, Contractor identity, and contract number.
 - b. For each person listed, provide name, social security number, and date of termination.
 - c. Name, address, and telephone number of Contractor representative to be contacted for questions or other information.
 - 1.9.2 Material Safety Data Sheets (MSDS). The Contractor shall prepare and/or deliver MSDS for hazardous materials brought onto Government property or included in products delivered to the Government. This data is required by the Occupational Safety and Health Administration (OSHA) regulation, 29 CFR 1910.1200, "Hazard Communication", EPA "Emergency Planning and Community Right-to-Know (EPCRA, ref. 40 CFR 302, 311, 312); and the Texas Department of Health (TDH, ref. Chapters 505-507 of the Health and Safety Code), and Federal Standard 313 (or FED-STD-313), "Material Safety Data, Transportation Data and Disposal Data for Hazardous Materials Furnished to Government Activities", as revised. This inventory is also required by JPR 1700.1, "JSC Safety and Health Handbook", as revised. One (1) copy of each MSDS shall be sent upon receipt of the material for use on NASA property to the JSC Central MSDS Repository, mail code SD33, along with information on new or changed locations and/or quantities normally stored or used. If the MSDS arrive with the material and is needed for immediate use, the MSDS shall be delivered to the Central MSDS Repository by close of business of the next working day after it enters the site.
 - 1.9.3 Hazardous Materials Inventory. The Contractor shall compile a quarterly inventory report of all hazardous materials it has located on Government property, and which is within the scope of 29 CFR 1910.1200, "Hazard Communication"; and Federal Standard 313 (or FED-STD-313), "Material Safety Data, Transportation Data and Disposal Data for Hazardous Materials Furnished to Government Activities", as revised. This inventory is also required by JPR 1700.1, "JSC Safety and Health Handbook". The call for this inventory and instructions for delivery will be issued by the JSC Human Health and Performance Contract contractor, mail code SD33. This information shall use the format used by JSC for chemical inventory compilation to provide the following:
 - a. The identity of the material (product number, chemical, manufacturer, and NSN as available).
 - b. The location of the material by building, room and area/cabinet number.
 - c. The quantity of each material normally kept at each location (number of containers, container size, type container, unit of measure, conversion factor, storage temp & pressure, physical state/form, specific gravity, total pounds).
 - d. Peak quantity stored.
 - e. Actual or estimated rate of annual usage of each chemical.
- 1.10 Government Access to Safety and Health Program Documentation. The Contractor shall recognize, in its plan, that all safety and health documentation (including relevant personnel records) be readily available for inspection or audit at the Government's request. Electronic access by the Government to this data is preferred as long as Privacy Act requirements are met and Government safety and health professionals and their representatives have full and unimpeded access for review and audit purposes. For Contractor activities conducted on NASA property, the Contractor shall identify what records will be made available to the Government in accordance with the criteria of OSHA as implemented in JPR 1700.1, "JSC Safety and Health Handbook". The contractor shall identify any electronic systems it creates to house or make available contractor websites used to publish or distribute its safety and health program information. Access by NASA safety, health, environmental, and emergency planning professionals and their representatives shall routinely be available on a read only basis. For the purpose of this plan, safety and health documentation includes but is not limited to: logs, records, minutes, procedures, checklists, statistics, reports, analyses, notes, or other written or electronic document which

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contains in whole or in part any subject matter pertinent to safety, health, or emergency preparedness.

- 1.11 Review and Modification of Safety Requirements. The Contractor may be requested to participate in the review and modification of safety requirements that are to be implemented by the Government including any referenced documents therein. This review activity shall be implemented at the direction of the NASA Contracting Officer's Representative (COR) in accordance with established contractual procedures.
- 1.12 Procurement. Identify procedures used to assure that procurements are reviewed for safety and health compliance considerations and specifications contain appropriate safety criteria and instructions. Set forth authority and responsibility to assure that safety tasks are clearly stated in subcontracts.
- 1.13 Certified Professional Resources. Discuss access to certified professional resources for safety and health protection. Discuss their roles in motivation/awareness, worksite analysis, hazard prevention and control, and training.

2. WORKSITE ANALYSIS

- 2.1 Analysis of Worksite Hazards. Contractor worksite hazards shall be systematically identified through a combination of surveys, analyses, and inspections of the workplace, investigations of mishaps and close calls, and the collection and trend analysis of safety and health data such as: records of occupational injuries and illnesses, findings and observations from preventive maintenance activities, facilities related incidents related to partial or full loss of systems functions; etc. Describe how hazards identified by any of the techniques identified below shall be ranked, processed, and mitigated in accordance with JPR 1700.1. All hazards on NASA property, which are immediately dangerous to life or health, shall be reported immediately to the Safety and Test Operations Division. All safety engineering products that address operations, equipment, etc., on NASA property shall be subject to JSC Safety and Test Operations Division review and concurrence unless otherwise waived by the JSC Safety and Test Operations Division.
- 2.2 Industrial Hygiene. Describe the industrial hygiene program and how it will be coordinated with the JSC Government provided resources for industrial hygiene. In the event corporate resources are used to determine workplace exposures, copies of all monitoring data shall be provided to JSC Human Health and Performance Contract contractor, mail code SD33, within 15 days of receipt of results.
- 2.3 Hazard Identification. Describe the procedures and techniques to be utilized to compile an inventory of hazards associated with the work to be performed on this contract. This inventory of hazards shall address the work specified in this contract as well as operations and work environments in the vicinity or in close proximity to contract operations. The results shall be reported to the Government in a manner suitable for inclusion in facilities baseline documentation as a permanent record of the facility. Specific techniques to be considered include:
 - 2.3.1 Comprehensive Survey. A "wall to wall" assessment of the Contractor's worksite, which includes the Government furnished facilities to be used by the contractor and the immediate vicinity in which contractual work or tasks will be performed. This assessment encompasses facilities, equipment, materials, and processes.
 - 2.3.2 Change (Pre-use) Analysis. Typically addresses modifications in facilities, equipment, processes, and materials (including waste); and related procedures for operations and maintenance. Change analyses periodically will be driven by new or modified regulatory and NASA requirements.
 - 2.3.3 Hazard Analysis. Address facilities, systems/subsystems, operations, processes, materials (including waste), and specific tasks or jobs. Analyses and report formats shall be in accordance with JSC 17773, "Preparing of Hazard Analyses for JSC Ground Operations." Job hazard analyses for offices shall utilize the office safety checklist found at <http://www6.jsc.nasa.gov/safety/checklists/>. Recommended changes to the checklist may be sent to the Safety & Test Operations Division, mail code NS, for consideration.
 - 2.3.4 Survey Results. The Contractors safety plan shall describe the flow of the findings of the comprehensive survey of hazards into hazard analyses and job hazard analyses and subsequently into controls such as design, operations, processes, procedures, performance standards, and training. The safety plan shall describe the contractor's approach to notify NASA and other parties external to the contract work of identified hazards and subsequent analyses and controls.

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- 2.4 Inspections. The data includes assignments, procedures, and frequency for regular inspection and evaluation of work areas for hazards and accountability for implementation of corrective measures. The Contractor shall describe administrative requirements and procedures for control of regularly scheduled inspections for fire and explosion hazards. The Contractor has the option, in lieu of this detail, to identify policies and procedures with the stipulation that the results (including findings) of inspections conducted on NASA property or involving Government furnished property shall be documented in safety program evaluations or the monthly Accident/Incident Summary reports at the contractor's discretion. Inspections will identify:
- Discrepancies between observed conditions and current requirements.
 - New (not previously identified) or modified hazards.
 - Use of JSC's Hazard Abatement Tracking System to manage hazards onsite at JSC (see paragraph 3.12 below).
 - Use of JSC's Building Inspection Tracking System to record performance of building inspections.
- 2.5 Protective Equipment. Set forth procedures for obtaining, inspecting, and maintaining all appropriate protective equipment, as required, or reference written procedures pertaining to this subject. Set forth methods for keeping records of such inspections and maintenance programs.
- 2.6 Employee Reports of Hazards (also called Close Calls). Identification of methods to encourage employees to report hazardous conditions (e.g., close calls) and participate in the analysis/abatement. The Contractor shall describe steps it will take to create reprisal-free employee reporting with emphasis on management support for employees and describe methods to be used to incorporate employee insights into hazard abatement and motivation/awareness activities.
- 2.7 Accident and Record Analysis
- 2.7.1 Mishap Contingency Plan. The Contractor shall include a mishap contingency plan as part of the Safety and Health Plan which meets the requirements of NPR 8621.1, "NASA Procedural Requirement for Mishap and Close Call Reporting, Investigating, and Recordkeeping", and JPR 1700.1, JSC Safety and Health Handbook" to assure reporting and investigation of mishaps and the corrective actions implemented to prevent recurrence. This plan shall address mishaps that occur on Government property, Contractor property, or third party property. The plan shall address use of the quick incident reports found at the home page of the NASA Incident Reporting Information System (IRIS) at <https://nasa.ex3host.com/iris/newmenu/login.asp> and use of NASA forms as specified in JPR1700.1 or any alternate forms used by the Contractor. It shall emphasize timely notification to NASA, including specific NASA program or project notification requirements; preliminary and formal investigation procedures; exercise of jurisdiction over a mishap investigation involving NASA and other contractor personnel (Government investigation takes precedence over any contractor investigation); preparation and submission of a formal report to NASA; follow up of corrective actions; communication of lessons learned to NASA; and solutions to minimize duplications in reporting and documentation including use of alternate forms, etc. The plan shall specifically address:
- Procedures for immediate action to be taken with regard to fires, hazardous or toxic material releases, and other emergencies, including notification of the JSC Emergency Operations Center (EOC) (JSC, Ellington Field, and Sonny Carter Training Facility at 3-3333; offsite at 281-483-3333). Contact the EOC for guidance when a Type „A" or „B" mishap occurs in the course of performing work on a NASA contract, in whole or in part. For Type „C" property damage mishaps, call the JSC Safety Hotline at 281-483-7500 and await instructions.
 - Immediate notification of the NASA Safety & Test Operations Division, the Contracting Officer, and the COTR in the advent of a type „A" or „B" mishap or „C", property damage mishap and all Close Calls with equivalent potential so NASA may take custody of the mishap scene and initiate its investigation as soon as it is safe.
 - For Type C injuries and all lower level mishaps, the Contractor shall perform its own investigation and submit a report to NASA in accordance with the requirements of JPR 1700.1.
 - When a NASA investigation is required, witnesses shall be identified and their names and contact information provided to NASA investigator but witness statement must be requested and collected by NASA. Such statements will be retained by the Government as part of the mishap file in accordance with NPR 8621.1.
 - The Contractor shall deliver to NASA mishap reports which shall include the data specified in NPR 8621.1 for the level of mishap. Details regarding NASA approval and endorsements as specified in NPR 8621.1 shall be included in the approved Safety and Health Plan.

NOTE: The NASA Form (NF) 1627 is available only from the web page at <http://jschandbook.jsc.nasa.gov/> and is being used until JSC Safety & Test Operations Division has implemented a replacement form to be used for all JSC and WSTF mishaps.

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(Based on JSC-STD-123. See work page for instructions.)

- 2.7.2 Trend Analysis. Describe approach to performing trend analysis of data (occupational injuries and illnesses; facilities, systems, and equipment performance; maintenance findings; etc.). Discuss methods to identify and abate common causes indicated by trend analysis. In support of site-wide trend analysis to be performed by the Government, the Contractor shall describe the methods of providing data as follows.
- a. Accident/Incident Summary Report. The Contractor shall prepare and deliver Accident/Incident Summary Reports as specified on JSC Form 288, "Accident/Incident Statistics" as revised. All new and open mishaps, including vehicle accidents, incidents, injuries, fires, and close calls shall be described in summary form along with current status. Negative reports are also required monthly. Report frequency is monthly; date due is the 10th days of the month following each month reported. The report shall be delivered electronically to the JSC Safety and Test Operations Division, the CO, the COTR, and to the JSC-Safety-Report-Submittals@mail.nasa.gov inbox.
 - b. Log of Occupational Injuries/Illnesses (OSHA Logs)
 - i. For each establishment on and off NASA property that performs work on this contract, the Contractor shall deliver a copy of its annual summary of occupational injuries and illnesses (OSHA 300 and OSHA 300A or equivalent) as described in Title 29, Code of Federal Regulations, Subpart 1904.5. If the Contractor is exempt by regulation from maintaining and publishing such logs, equivalent data in Contractor's format is acceptable (such as loss runs from insurance carrier) which contains the data required by JSC Form 288.
 - ii. Data shall be compiled and reported by calendar year and delivered within 45 days after the end of the year to be reported (e.g. not later than February 15 of the year following).

3. HAZARD PREVENTION AND CONTROL

- 3.1 Identified hazards must be eliminated or controlled. Describe the approach for implementing Chapter 3.5 of JPR 1700.1. If a Contractor provided system is used to document and track such hazards, the system shall be readily available and accessible to JSC safety, health, environmental, and emergency planning personnel and their representatives on a read only basis. Describe the approach for communication of such data.
- 3.2 Appropriate Controls. Describe the approach to consideration and selection of controls. Discuss use of hazard reduction precedence sequence (see JPR 1700.1). Describe the approach to identify and accept residual risk. Describe the approach for implementing controls including verifying their effectiveness. Discuss the scope of coverage (hazardous chemicals, equipment, energies, etc.). Discuss the need for coordination with safety, health, and emergency authorities at JSC.
- 3.3 Hazardous Operations and Processes. Establish methods for notifying personnel when hazardous operations and processes are to be performed in their facilities or when hazardous conditions are found to exist during the course of this contract. JPR 1700.1 will serve as a guide for defining, classifying, and prioritizing hazardous operations; 29 CFR 1910.119 will be the guide for hazardous processes when the material or process meets the requirements therein.
- 3.3.1 List of Hazardous Operations. Develop and maintain a list of hazardous operations and processes to be performed during the life of this contract. The list of hazardous operations and processes shall be provided as part of the plan for review and approval. The Contractor shall collaborate with the JSC Safety & Test Operations Division to identify operations and processes to be considered hazardous. The JSC Safety and Test Operations Division will have the final authority.
 - 3.3.2 Procedures. Before hazardous operations or processes commence, the Contractor shall ensure approved, written procedures, with particular emphasis on identifying the job safety steps, are present and being utilized. Upon request, the Contractor shall provide to NASA data necessary to verify compliance.
 - 3.3.3 Hazards Outside of Contract Scope. Should operations or processes that may have safety or health implications outside of contract operations (e.g., pose threats to non-contract personnel or assets) be identified, the Contractor shall notify such circumstances to the JSC Safety and Test Operations Division and the Occupational Health Officer who will provide additional instructions for further NASA management review and approval.
- 3.4 Written Procedures. Identification of methods to assure that relevant hazardous situations and proper controls are identified in documentation (e.g. inspection procedures, test procedures, etc.), and other related information. Describe

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

methods to assure that written procedures are developed for all hazardous operations including testing, maintenance, repairs, and handling of hazardous materials and hazardous waste. Procedures shall be developed in a format suitable for use as safety documentation (such as a safety manual) and be readily available to personnel as required to correctly perform their duties.

- 3.5 Hazardous Operations Permits. Describe the approach for identifying facilities, operations and/or tasks where hazardous operations permits are required, as specified in JPR 1700.1, such as confined space entry, hot work, etc. Set forth guidance to adhere to established NASA JSC procedures. Clearly state the role of the safety group or function to control such permits.
- 3.6 Operations Involving Potential Asbestos Exposures. Describe the approach to ensure compliance with the JSC Asbestos Control Program per JPR 1700.1.
- 3.7 Operations Involving Exposures to Toxic or Unhealthful Materials. Describe the approach to ensure operations involving exposure to toxic or unhealthful materials are evaluated by the JSC Occupational Health Office prior to implementation and must be properly controlled as advised by same. JSC Occupational Medicine must be notified prior to initiation of any new or modified operation potentially hazardous to health.
- 3.8 [RESERVED.]
- 3.9 Baseline Documentation. Discuss responsibilities for maintaining facilities baseline documentation in accordance with JSC requirements. The Contractor shall implement any facilities baseline documentation tasks (including safety engineering) as provided in the Contractor's plan approved by NASA or as required by Government direction.
- 3.10 Preventive Maintenance. Discuss the approach to preventive maintenance. Describe scope, frequency, and supporting rationale for the preventive maintenance program including facilities and/or equipment to be emphasized or de-emphasized. Discuss methods to promote awareness in the NASA community (such as alerts, safety flashes, etc.) when preventive maintenance reveals design or operational concerns in facilities and equipment (and related processes where applicable).
- 3.11 Medical (Occupational Healthcare) Program. Describe the medical surveillance program and injury/illness case management to evaluate personnel and workplace conditions to identify specific health issues and prevent degradation of personnel health as a result of occupational exposures. Discuss approach to Cardiopulmonary Resuscitation (CPR), first aid, and, return to work policies and the use of Government provided medical and emergency facilities for the initial treatment of occupational injuries/illnesses.
- 3.12. Hazard Correction and Tracking. Describe the system for correcting and tracking safety, health, and environmental hazards with particular emphasis on integration with JSC's Hazard Abatement process (found on line at <http://www6.jsc.nasa.gov/safety/hazard/process/default.asp>). (The scope is restricted to establishments at JSC, Sonny Carter Training Facility, and Ellington Field.) This includes the following:
 - 3.12.1 Personnel Awareness of Hazards. Describe the approach to communicate unsafe conditions and approved countermeasures to Contractor employees. Discuss the approach to communicating such conditions to the Government and other contractors whose personnel may be exposed to such unsafe conditions. Discuss communications with Facility Managers. Discuss use of the NASA Lessons Learned Information System for both obtaining lessons from other sources and as a repository for lessons learned during performance of the contract.
 - 3.12.2. Interim and Final Abatement Plans. Describe the approach for interim and final abatement of hazards, including submittal of data to the JSC Hazard Abatement and Tracking System (HATS) for all hazards within Contractor-occupied facilities that are not finally abated (all interim and final abatement actions completed) within 30 days of discovery. Discuss the approach to posting such plans using JSC Form 1240, "JSC Notice of Safety or Health and Action Plan", or equivalent. Discuss the compatibility of any Contractor provided system with JSC's role of facility managers in abatement planning, implementation, and verification.
- 3.13 Disciplinary System. Describe the system for ensuring safety and health discipline (including subcontractors). Describe the approach to modifying personnel behaviors when personnel are exhibiting discrepant safety and health performance.

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

- 3.14 Emergency Preparedness. Discuss the approach to emergency preparedness and contingency planning which addresses fire, explosion, inclement weather, etc. Discuss compliance with 29 CFR 1910.120 (HAZWOPER) and role in the JSC Incident Command System (see JPR 1700.1 for details). Discuss methods to be used for notification of JSC emergency forces including emergency dispatcher, safety hotline, director's safety hotline, etc. Discuss establishment of pre-planning strategies through procedures, training, drills, etc. Discuss methods to verify emergency readiness.

4. SAFETY AND HEALTH TRAINING

The Safety and Health training program shall address the following:

- 4.1 The training program including identification of responsibility for training employees to assure understanding of safe work practices, hazard recognition, and appropriate responses for protective and/or emergency countermeasures, including training to meet Federal, State, and Local regulatory requirements.
- 4.2 The approach to identifying training needs including traceability to exercises such as job safety analyses, performance evaluation profiles, hazard analyses, mishap investigations, trend analyses, etc.
- 4.3 The approach to training personnel in the proper use and care of personal protective equipment (PPE).
- 4.4 How training will be tailored towards specific audiences (management, supervisors, and employees) and topics (safety orientation for new hires, specific training for certain tasks or operations).
- 4.5 The approach to ensure that training is retained and practiced. Discuss personnel certification programs. Certifications should include documentation that training requirements and physical conditions have been satisfied (examples include physical examination, testing, and on-the-job performance).
- 4.6 The utilization of JSC safety and health training resources (such as asbestos worker training/certification, hazard communication, confined space entry, lockout/tag out, etc.) as appropriate with particular emphasis on programs designed for the multiple employer work environment on NASA property. Prior to training Contractor personnel in any regulatory mandated training, an agreement will be secured with JSC Safety & Test Operations Division and the Occupational Health Officer in the Space Medicine Division. This agreement will ensure that safety and health training resources available from NASA are utilized where appropriate.
- 4.7 The approach to making all training materials and training records available to NASA, and other Federal, state, and local agencies for their review upon request.

OTHER DELIVERABLES:

The requirements for this plan as detailed in the instructions on plan content above include instructions for specific reports and data to be submitted to the Government. These instructions are to be included in the plan and represent contractual commitments by the Contractor to provide this information. The reports and deliverables include the following (along with paragraph references):

- 1.5.2 Company Physician/Occupational Injury/illness case manager – at contract start and as revised.
- 1.5.3 Building Fire Wardens (Roster)
- 1.5.4 Designated Safety Official
- 1.8.2 Annual Safety and Health Self Evaluation Report
- 1.9.1 Roster of Terminated Employees
- 1.9.2 Material Safety Data Sheets (MSDS)
- 1.9.3 Hazardous Materials Inventory
- 2.2 Industrial Hygiene data that is obtained by the contractor from non-JSC services.
- 2.3 Inventory of Hazardous Operations
- 2.3.3 Job Hazard Analysis for Offices including recommended revisions
- 2.4.d Inspection results entered in Building Inspection Tracking System (BITS)
- 2.4.2 Monthly Metrics Report – inspection finding and corrective actions
- 2.4.2 Hazard Abatement Tracking System – for hazards open more than 30 days.
- 2.6 Employee Reports of Hazards (Close calls) forwarded to JSC close call tracking system.
- 2.7.1 Mishap reporting and Lessons Learned.
- 2.7.2.a JSC Form 288, "Accident/Incident Statistics"

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(Based on JSC-STD-123. See work page for instructions.)

- 2.7.2.b Log of Occupational Injuries/Illnesses (OSHA Logs)
- 3.1, 3.12 Hazards recorded in JSC Hazard Abatement Tracking System.
- 3.12.2 Interim and Final Abatement Plans.

C. MAINTENANCE:

Revisions are made on the DDMS.

D. DISTRIBUTION:

Distribution shall be in accordance with the Data Requirements List.

E. APPLICABLE DOCUMENTS:

1. OSHA CSP 03-01-003, Voluntary Protection Program (VPP): Policies and Procedures Manual
2. JSC 17773, Instructions for Preparation of Hazard Analysis for JSC Ground Operations
3. JPR 1700.1 JSC Safety and Health Handbook

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

1. DRD Title Safety and Health Program Self Evaluation	2. Date of current version 12/01/2011	3. DRL Line Item No. SMA-04	RFP/Contract No. (Procurement completes) NNJ13HA01C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) Self evaluation of Contractor's Safety and Health Program Performance.		5. DRD Category: (<i>check one</i>) <input type="checkbox"/> Technical <input type="checkbox"/> Administrative <input checked="" type="checkbox"/> SR&QA	
6. References (<i>Optional</i>) JPR 1700.1 JSC Safety and Health Handbook		7. Interrelationships (<i>e.g., with other DRDs</i>) SMA-03 Safety and Health Plan	
8. Preparation Information (<i>Include complete instructions for document preparation</i>) A. CONTENT: The Contractor shall conduct an annual self-evaluation of its safety and health program as required by its safety and health plan. Information required: a. The internal assessment of safety and health program effectiveness during the report period (i.e., the previous year) indicating the status of goals or objectives previously established and areas of strength and weakness in Contractor safety program performance. b. Safety and health concerns and resolutions relating to JSC operations which may have been identified during the report period. c. Unresolved safety and health concerns relating to JSC operations which the Contractor feels merit attention of JSC safety and health management. d. The goals and objectives of the Contractor safety and health program for the next report period. e. An analysis of the contractor's performance at JSC-administered establishments in each of the 32 Voluntary Protection Program sub-elements found in the Federal Register Notice 65:45649-45663, July 24, 2000. f. Attach action plans for identified problem areas. Action plans must include schedule for periodic progress reports to the Government on a frequency agreed to by the Government and the Contractor for each problem area. Report due September 30 th of each year. B. FORMAT: As required by the cognizant OSHA regional office. Contractors who have submitted a written self-evaluation as a VPP site may submit their original report to JSC in lieu of writing a new self-evaluation provided that all action plans and status are updated. Data shall be submitted to the Engineering Directorate Design Data Management System (DDMS) in native format compatible with the JSC standard software load. C. MAINTENANCE: Revisions are made on the DDMS. D. DISTRIBUTION: Distribution shall be in accordance with the DRL. E. APPLICABLE DOCUMENTS:			

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

1. DRD Title Lessons Learned Program Plan and Lessons Learned	2. Date of current version 12/01/11	3. DRL Line Item No. SMA-05	RFP/Contract No. (Procurement completes) NNJ13HA01C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) Establishes Process for obtaining Lessons Learned from Contractor for possible publication in JSC Lessons Learned Database and NASA Lessons Learned Information System (LLIS) ***The Office of Primary Responsibility for this DRD is the JSC Knowledge Management Office in the Safety and Mission Assurance Directorate		5. DRD Category: (<i>check one</i>) <input type="checkbox"/> Technical <input type="checkbox"/> Administrative <input checked="" type="checkbox"/> SR&QA	
6. References (<i>Optional</i>) 1. JPR 2310.1, "JSC Organizational Learning Program", Section 4, "Lessons Learned Process" 2. NPR 7120.5C, "NASA Program and Project Management Processes and Requirements" 3. NPR 7120.6, "Lessons Learned Process" 4. NPR 8621.1, NASA Procedural Requirements for Mishap Reporting, Investigating, and Recordkeeping" 5. NPR 8715.3, "NASA Safety Manual"		7. Interrelationships (<i>e.g., with other DRDs</i>) SMA-03 Safety and Health Plan	
8. Preparation Information (<i>Include complete instructions for document preparation</i>) A. CONTENT: 1) Lessons Learned Program Plan: The contractor shall develop and implement a lessons learned program plan consistent with the areas defined in the SOW and/or the WBS. The lessons learned program plan shall include: a) Lessons learned program structure and management responsibility for lessons learned. b) Lessons Learned advocacy throughout the contracted effort. c) Approach to selection, review, and validation of lessons learned using contract and government assets. d) Approach used to balance trade secret and security imperatives vice government rights in data and the need to capture lessons for publication in Government information systems and processes. e) The dissemination of lessons learned throughout appropriate NASA programs including the retrieval and dissemination of lessons published in the JSC Lessons Learned Database and the NASA Lessons Learned Information System. f) Information on the successful use of retrieved lessons including how they were used, by whom, for what purposed, and implementation detail delivered to the Government as additional recommendations for previously published lessons. g) Goals for the contractor's lessons learned program including: schedules, scope, breadth, quality, and quantity of lessons the Government can expect as delivered lessons. Appropriate metrics for identification, publication, and dissemination are highly desirable. h) The approach to the selection of media to be used for of supporting data inclusion with each lesson learned (such as photographs, analyses, diagrams, schematics, drawings, and streamed video.) 2) Access to the JSC Lessons Learned Database and the NASA Lessons Learned Information System: a) To obtain access privileges to the JSC Lesson learned Database, JSC Domain Internet access is required to enter and review lessons learned information. The JSC lessons learned database is accessible at https://lldb.jsc.nasa.gov/index.cfm?&CFID=635927&CFTOKEN=72741895 b) To obtain access to the NASA Lessons Learned Information System, go to http://llis.nasa.gov/ and follow instructions. 3) Criteria for Selecting Lessons Learned: Uncommon insight arising from any event or observation that will benefit from sharing with a larger community of interested parties. Lessons learned are intended to prevent recurrence of undesirable events and to allow NASA and its team members to capitalize to the greatest extent practical on unique successes, requiring documented insight for retrieval on demand. Sharing of lessons with other Government agencies is also expected. 4) Frequency of submission for lessons learned: As follows (in order of decreasing Government preference): a) Data entry to the JSC LLDB or NASA LLIS within 30 days of a triggering event. b) Within 30 days of a program milestone, mishap investigation, or hazard or other engineering analysis /evaluation is completed. c) 30 days prior to end of contract evaluation period, or 45 days prior to end of contract, whichever is applicable. 5) Distribution of Lessons: a) Lessons are distributed by entry into the JSC Lessons Learned Database which submits lessons to the NASA Lessons			

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(Based on JSC-STD-123. See work page for instructions.)

Learned Information System once approved and published. The NASA Lessons Learned Information System may be used directly if the contractor is outside the JSC domain or firewall.

- b) Contracting Officer's Technical Representative (COTR).
- 6) Content of Lessons:
 - a) Subject - one line subject of the lesson.
 - b) Lesson Learned - usually one sentence that describes insight gained.
 - c) Description of Event - narrative that describes what happened.
 - d) Recommendations - may be an action plan, suggestion, etc., that was adopted at event source.
 - e) Supporting documentation - submit as needed to augment understanding of lesson (photographs with or without pointers and text labels), illustrations, drawings, etc.).
 - f) Contact name and e-mail address (for follow up by the Government prior to publication of lesson).
- 7) Definitions: Refer to NASA LLIS at <http://llis.nasa.gov> and JPR 2310.1 for definitions of terms used
- 8) Evaluation of Contactor Lessons Learned Program performance: The following characteristics are evaluated by the Government in order of decreasing importance:
 - a) Effectiveness of approach to lessons learned advocacy.
 - b) Ability to recognize and capitalize on lessons learned in a timely manner.
 - c) Breadth of participation by the contracted effort to include from where lessons originate for publication and to whom lessons are disseminated for use by contract assets.
 - d) Technical quality of lessons submitted including thoroughness and readiness of supporting documentation for publication.

B. FORMAT:

C. MAINTENANCE:

D. DISTRIBUTION:

Distribution shall be in accordance with the DRL.

E. APPLICABLE DOCUMENTS:

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

1. DRD Title Problem Reporting and Corrective Action (PRACA) for the JSC Government Furnished Equipment (GFE) and Flight Products	2. Date of current version 12/01/2011	3. DRL Line Item No. SMA-06	RFP/Contract No. (Procurement completes) NNJ13HA01C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) To report problems and to document their subsequent resolution and approval.		5. DRD Category: (<i>check one</i>) <input type="checkbox"/> Technical <input type="checkbox"/> Administrative <input checked="" type="checkbox"/> SR&QA	
6. References (<i>Optional</i>)		7. Interrelationships (<i>e.g., with other DRDs</i>) TD-20 Non-Conformance Record TD-21 Flight Products Failure Analysis Report	
8. Preparation Information (<i>Include complete instructions for document preparation</i>) A. SCOPE: Non-conformances requiring JSC/GFE PRACA reporting are defined in JSC 28035. PRACA reporting is limited to flight equipment and software, equipment that is representative of flight equipment and software (flight-like) and critical ground support equipment and software. PRACA requirements are also applicable to subcontractors that provide these products. B. CONTENT: 1) The following data is mandatory for the initial reporting of a problem. The initial report shall be transmitted to the JSC PRACA Center within 2 business days after isolation to a configuration item, but no later than 10 business days after occurrence/detection. a) PRACA Number [a unique tracking number assigned to the PRACA report] b) Non-conformance Number [a unique local nonconformance number] c) Detect Date [The date (mm/dd/yyyy) non-conformance occurred or was detected] d) Location [The location where the non-conforming item was at, at the time of occurrence/detection] e) Program [The affected NASA program] f) Project Office [The responsible NASA Project Office (EVA, FCE, Life Sciences, and Other ____)] g) Contact [The technical point of contact, organization, and phone number] h) Report Date [Date the PRACA report was initiated] i) Detected During [The specific test or operation performed when the non-conformance occurred] j) Title [A brief, but descriptive title for the problem] k) Description [A narrative description of the problem including the observed event(s) as well as the expected event(s).] l) Identification of the Configuration Item by: i. Part name ii. Part number iii. Serial number, lot number, or version iv. Manufacturer's name v. Manufacturer's Contractor and Government Entity (CAGE) code 2) The following data shall be provided when it becomes known (with the exceptions noted). This data shall be provided as updates to the initial PRACA report. This data is mandatory for the closure of the report. a) The end item or product (if not the configuration item), specific subassemblies, and the nonconforming article shall be identified: i. Part name ii. Part number iii. Serial number, lot number, or version iv. Manufacturer's name v. Manufacturer's CAGE code b) FMEA No. [Failure Mode and Effects Analyses number] c) FMEA Criticality [This data is required within 10 calendar days of opening the problem report] d) FMEA/CIL Impact [yes or no, is the FMEA/CIL retention rationale impacted by the occurrence of this problem?] e) Out-of-Family Problem [yes or no, based on the definitions of In-Family and Out-of-Family in JSC 28035] f) Fracture Critical [yes or no, is the material involved fracture critical?]			

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(Based on JSC-STD-123. See work page for instructions.)

- g) ECD [Estimated Completion Date for submitting a final closure of the problem. This data is required within 30 calendar days of opening the problem report.]
 - h) Process Escape [yes or no, per the definition of process escape in JSC 28035]
- 3) The following data shall be provided to close the report:
- a) Final report [A final report documenting the specific information required for closure per JSC 28035, i.e. final closure with corrective action (this is preferred) or final closure without corrective action (explanation)]
 - b) Approval signatures
 - c) Date Approved

C. MAINTENANCE:

See Data Requirements List (DRL).

D. DISTRIBUTION:

Distribution shall be in accordance with the DRL.

E. APPLICABLE DOCUMENTS:

- a. JSC 28035, Program Problem Reporting and Corrective Action (PRACA) Requirements for the Johnson Space Center/Government Furnished Equipment (GFE).
- b. SSP 30234, Failure Modes and Effects Analysis and Critical Items Requirements List for Space Station.

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

1. DRD Title Government-Industry Data Exchange Program (GIDEP) and NASA Advisory Problem Data Sharing and Utilization Program Documentation and Reporting	2. Date of current version 12/15/2011	3. DRL Line Item No. SMA-07	RFP/Contract No. (Procurement completes) NNJ13HA01C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) This DRD provides the minimum information to be incorporated into the Contractor's and sub tier contractor implementation procedures and contractual data reporting requirements necessary to participate in the GIDEP and NASA Advisory Problem Data Sharing and Utilization Program.		5. DRD Category: (<i>check one</i>) <input type="checkbox"/> Technical <input type="checkbox"/> Administrative <input checked="" type="checkbox"/> SR&QA	
6. References (<i>Optional</i>)		7. Interrelationships (<i>e.g., with other DRDs</i>) SOW Section 1.2.3 TD-20 Non-Conformance Record	
8. Preparation Information (<i>Include complete instructions for document preparation</i>) A. CONTENT: <p>The Contractor shall review and respond to all GIDEP ALERTS, GIDEP SAFE-ALERTS, GIDEP Problem Advisories, GIDEP Agency Action Notices, and NASA Advisories issued from the JSC/NASA-Advisory/GIDEP Status Tracking System to determine if they affect the Contractor's products or services provided to NASA. If it is determined there is an impact, the Contractor shall take action to eliminate or mitigate any negative effects to an acceptable level. The Contractor shall generate the appropriate failure experience data report(s) (i.e. GIDEP ALERT, GIDEP SAFE-ALERT, GIDEP Problem Advisory, or NASA Advisory) whenever systemic failed or nonconforming items, available to other buyers, are discovered during the course of this contract.</p> <p>The Contractor shall establish and implement procedures to comply with the SOW requirements to register with, and participate in the GIDEP in accordance with NPR 8735.1. At a minimum, these procedures shall address:</p> <ol style="list-style-type: none"> The Contractor and sub-tier implementation procedures that include sufficient detail to ensure the Contractor understands the importance of the task, management responsibilities, technical expertise required to identify and resolve impacts, "special problem" information sensitivity, and documentation necessary to comply with GIDEP and NASA policies. Special controls shall be implemented to ensure confidentiality of problem reports involving criminal investigations. Preparation and submittal of GIDEP documents in accordance with SO300-BT-PRO-010. Preparation and submittal of NASA Advisories using JSC Form (JF) 1159, JSC/NASA Advisory. Initiation of JF 1159 shall be through the JSC/NASA-Advisory/GIDEP Coordinator at jsc-jscadvco@nasa.gov. Release of NASA Advisories shall be pre-coordinated with the JSC/NASA-Advisory/GIDEP Coordinator and comply with the contents required to complete JF 1159 to accurately report the problem and conditions. Task management, control, and tracking status. Methodology that will be used to (1) distribute and thoroughly assess the GIDEP and NASA Advisory for impacts to assets pertaining to this contract and (2) ensure impacts noted are promptly reported, tracked and, upon direction from the Contracting Officer (CO) or Contracting Officer Technical Representative (COTR), corrected. Disposition assessments and status shall be entered into the JSC/NASA Advisory GIDEP Documents Status and Tracking System maintained by the JSC/NASA-Advisory GIDEP Coordinator and shall be made in a timely manner to support Certificate of Flight Readiness Reviews and other milestones associated with space-flight activities. Tracking and reporting financial data to justify and substantiate any reported "cost impacts" in accordance with GIDEP policies. Logistical tracking, tagging, segregation, and retention of suspect parts or material in the custody of the Contractor pending final disposition instructions from the CO or the COTR with concurrence from the JSC/NASA-Advisory GIDEP Coordinator. Identification of the Contractor's representative(s), Point of Contact for this activity, who shall interface with the JSC/NASA-Advisory GIDEP Coordinator. B. FORMAT: Contractor format is acceptable with the provision that GIDEP forms/documentation shall be used in accordance with GIDEP policies and JF 1159 shall be used to report NASA Advisories. C. MAINTENANCE: Changes to the Contractor's procedures shall require approval by the Contracting Officer with concurrence from the JSC			

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

NASA-Advisory/GIDEP Coordinator.

D. DISTRIBUTION:

Distribution shall be in accordance with the Data Requirements List (DRL).

E. APPLICABLE DOCUMENTS:

NPR 8735.1, "Procedure for Exchanging Parts, Materials, and Safety Problem Data Utilizing the Government-Industry Data Exchange Program and NASA Advisories"

SO300-BT-PRO-010, GIDEP Operations Manual and Policy

SO300-BU-GYD-010, GIDEP Requirements Manual

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

1. DRD Title Project Schedule	2. Date of current version 12/01/2011	3. DRL Line Item No. RV-01	RFP/Contract No. (Procurement completes) NNJ13HA01C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) Provide schedule information to NASA, so that interdependent program activities can be planned and critical milestones monitored.		5. DRD Category: (<i>check one</i>) <input checked="" type="checkbox"/> Technical <input type="checkbox"/> Administrative <input type="checkbox"/> SR&QA	
6. References (<i>Optional</i>)		7. Interrelationships (<i>e.g., with other DRDs</i>) MGMT-03 Contract Management Report RV-02 Regular Status Report/Summary Review	
8. Preparation Information (<i>Include complete instructions for document preparation</i>) A. SCOPE: The schedule shall serve as the basis for communications between the Contractor and NASA concerning essential schedules. The detail breakdown in the schedule depends on the type of products and services requested, and will be defined in the Task Order (TO). B. CONTENT: Project schedules shall be prepared using the Critical Path Method and include a graphical representation to illustrate order and interdependence of activities and sequence of work based upon the Work Breakdown Structure in the TO. Each activity shall include start and finish dates. The complexity shall match the nature of the products being provided. The portion of the schedule completed shall be identified. As a minimum the following detail is required: <ol style="list-style-type: none"> 1. Key Milestones (e.g., requirements reviews, design reviews, test readiness reviews, critical activity completion dates) 2. Key product deliveries including delivery and return from remote facilities 3. Key design activity 4. Key manufacturing activity, test activity, and significant events 5. Assembly time 6. Major external project milestones not controlled by the contractor and their relationship to the project C. FORMAT: The format is defined by an outline or template associated with this data in the Design Data Management System (DDMS). The format may be varied to match the specific nature of the products being provided. The schedule shall be delivered in native format, and be compatible with Microsoft Project software. D. MAINTENANCE: See Data Requirements List (DRL). E. DISTRIBUTION: Distribution shall be in accordance with the DRL. F. APPLICABLE DOCUMENTS:			

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

1. DRD Title Regular Status Report/Summary Review	2. Date of current version 12/01/2011	3. DRL Line Item No. RV-02	RFP/Contract No. (Procurement completes) NNJ13HA01C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) Provide information on the Contractor's technical, quality, financial, and delivery-to-schedule progress.		5. DRD Category: (<i>check one</i>) <input checked="" type="checkbox"/> Technical <input type="checkbox"/> Administrative <input type="checkbox"/> SR&QA	
6. References (<i>Optional</i>)		7. Interrelationships (<i>e.g., with other DRDs</i>) RV-01 Project Schedule	
8. Preparation Information (<i>Include complete instructions for document preparation</i>) A. SCOPE: The Regular Status Report shall contain information on the contractor's technical, quality, cost, and deliver-to-schedule performance related to the work defined in a Task Order (TO). A review shall be held with NASA to discuss the highlights. The frequency of submittal of the Regular Status Report shall be monthly, or as defined in the TO. B. CONTENT: The contents of the report shall address all the products and services defined in the TOs held by the contractor that are still active. The structure of the report shall be selected by the contractor and agreed upon by the COTR, or their designated representative. The following shall be addressed in the report: 1) <u>Cost Performance Summary (Performance Based):</u> a) Project Actual-To-Date Cost & Projected Total Cost - Last Period b) Project Actual-To-Date Cost & Projected Total Cost - This Period c) Projected Total Cost Addition Due to Approved Changes d) Graphics of Initial Cost Projection, Initial Cost Projection + Approved Changes Projection, Full Cost Projection e) Variance not due to approved change and description of cause 2) <u>Resource Performance Summary (Level-Of-Effort):</u> a) For the Work Breakdown Structure (WBS) reporting level requested in the TO, the following summary is to be provided by standard labor category. Graphic of the initial planned manpower for each WBS item for the TO, with current planned manpower, with approved changes for the project, actual manpower expended to date, and percentage of the WBS task completed. b) Technical & Quality Performance Status: i. Nominal Technical/Quality Performance Achieved ii. Better than Nominal Technical/Quality Performance Achieved iii. Nominal Technical/Quality Performance not Achieved iv. Action to be taken, to resolve unachieved Nominal Performance v. Notice of potential failure to meet future Nominal Performance, identification of causes, along with recommendations as appropriate vi. Other Technical and Quality Subjects particular to the project 3) <u>Product Production and Schedule Status:</u> a) Overall Schedule Status b) Completed Products and Schedule – Projected in Last Monthly Period c) Completed Products and Schedule - Actual This Period d) Projected Next Month's Products, and Schedule Completion e) Change from last month due to Approved Changes f) Variance not due to approved change, and description of cause 4) <u>Variance Deployed Hardware Status:</u> a) Open Anomalies Status (all formal reporting status) b) Corrective Actions Status c) Lessons Learned			

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

5) Management:

- a) Corrective Actions Taken This Period
- b) Organization
- c) Efficiencies Implementation
- d) Impacts of External Dependencies

6) Summary Review:

- a) The Summary Review shall be a presentation that contains the highlights of the report. The COTR or designee, and the contractor shall agree upon the contents of the review. The Summary Review shall not address the contents of Product Production and Schedule Status section above.

7) Minutes during the Summary Review shall be taken, and submitted with the Status Report.

8) Additional content as identified in the TO.

C. FORMAT:

The report shall be provided in a business report style with a report body font size that does not exceed 12. The Summary Review shall be a viewgraph presentation compatible with Microsoft Power Point. The electronic data shall be delivered in native format, and be compatible with the JSC standard office software loads, and standard engineering software.

D. MAINTENANCE:

See Data Requirements List (DRL).

E. DISTRIBUTION:

Distribution shall be in accordance with the DRL.

F. APPLICABLE DOCUMENTS:

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

1. DRD Title Project Technical Requirements Specification (PTRS)	2. Date of current version 12/01/2011	3. DRL Line Item No. RV-03	RFP/Contract No. (Procurement completes) NNJ13HA01C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) The PTRS defines the requirements of the Engineering Directorate Customer(s), the S&MA organization, and the Engineering Directorate for flight products.		5. DRD Category: (<i>check one</i>) <input checked="" type="checkbox"/> Technical <input type="checkbox"/> Administrative <input type="checkbox"/> SR&QA	
6. References (<i>Optional</i>) EA-WI-023 Project Management of GFE Flight Projects EA-WI-025 GFE Flight Project Software and Firmware Development		7. Interrelationships (<i>e.g., with other DRDs</i>) RV-07 End Item Specification	
8. Preparation Information (<i>Include complete instructions for document preparation</i>) A. SCOPE: The PTRS contains the performance, functional, environmental, interface, criticality, maintainability, safety, and human rating requirements for the flight products. This is the formal agreement between the Engineering Directorate and its customer(s). The Contractor shall provide all or a part of the engineering effort required to produce this record. The Contractor shall survey the multiple sources of flight product requirements, and define those that are essential for mission success. B. CONTENT: The PTRS shall define the minimum technical requirements, and any constraints for the flight products that apply to performance, design, operation, interoperability, reliability, maintainability and transportability. The minimum set of technical requirements shall include all functional requirements that will be used as a measure of mission performance success. A general outline of the content in a PTRS is contained in EA-WI-023 and EA-WI-025. The PTRS is the source of requirements used to develop the detailed design requirements that will be contained in the Product Specification. C. FORMAT: The format is defined by an outline or template associated with this data in the Engineering Directorate Design Data Management System (DDMS). The format may be varied to match the specific nature of the products being provided. The format for the PTRS is also described in EA-WI-023. The PTRS shall be delivered in native format, and be compatible with the JSC standard software loads. D. MAINTENANCE: See Data Requirements List (DRL). E. DISTRIBUTION: Distribution shall be in accordance with the DRL. F. APPLICABLE DOCUMENTS:			

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

1. DRD Title Project Requirements and Verification Documentation (PRVD)	2. Date of current version 12/01/2011	3. DRL Line Item No. RV-04	RFP/Contract No. (Procurement completes) NNJ13HA01C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) This document is delivered instead of the Flight Hardware Project Technical Requirements Specification and the Flight Hardware Verification and Validation Plan when the Flight Products requested are simple in nature or present little risk to the crew or NASA assets.		5. DRD Category: (<i>check one</i>) <input checked="" type="checkbox"/> Technical <input type="checkbox"/> Administrative <input type="checkbox"/> SR&QA	
6. References (<i>Optional</i>) EA-WI-023 Project Management of GFE Flight Products		7. Interrelationships (<i>e.g., with other DRDs</i>) RV-03 Project Technical Requirements Specification (PTRS) RV-10 Flight Products Verification and Validation Plan	
8. Preparation Information (<i>Include complete instructions for document preparation</i>) A. SCOPE This document defines a limited set of requirements for the flight products and the verification approach when the products are determined to not have a critical function. B. CONTENT: This document shall contain the functionality of the separate Project Technical Requirements Specification, Verification and Validation Plan. The contents will depend on the nature of the Task Order but shall include all or some of the content described for the PRVD contained in EA-WI-023. C. FORMAT: The format is defined by an outline or template associated with this data in the Design Data Management System (DDMS). The format may be varied to match the specific nature of the products being provided. The electronic data shall be delivered in native format, and be compatible with the standard JSC office software loads and standard engineering software. D. MAINTENANCE: See Data Requirements List (DRL). E. DISTRIBUTION: Distribution shall be in accordance with the DRL. F. APPLICABLE DOCUMENTS:			

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

1. DRD Title Certification and Acceptance Requirements Document (CARD)	2. Date of current version 12/01/2011	3. DRL Line Item No. RV-05	RFP/Contract No. (Procurement completes) NNJ13HA01C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) To record the joint JSC and flight product provider agreed upon requirements to be used for acceptance and certification of flight products.		5. DRD Category: (<i>check one</i>) <input type="checkbox"/> Technical <input type="checkbox"/> Administrative <input checked="" type="checkbox"/> SR&QA	
6. References (<i>Optional</i>)		7. Interrelationships (<i>e.g., with other DRDs</i>) TD-06 Certification Data Package	
8. Preparation Information (<i>Include complete instructions for document preparation</i>) A. SCOPE: The CARD is a two-part document. Part One addresses hardware and, if applicable, installed software definition, verification requirements, and acceptance and certification environmental requirements. These verification requirements apply to both the design certification and the acceptance testing of flight hardware. The CARD combines the end item specification, and certification plan documents into one document. Part Two is the associated Requirements Verification Matrix. Once the CARD is approved, it shall be placed under configuration control. The Requirements Verification Matrix is then used to verify, and document the hardware compliance to the established requirements. A copy of the Requirements Verification Matrix, with the column "Verification Documentation" listing the appropriate documentation (e.g. test document number, analysis document number, technical memo number, etc.), shall be completed and submitted as part of the Government Certification Acceptance Request (GCAR)/Certification Package. B. CONTENT: PART ONE: <ol style="list-style-type: none"> Foreword - This includes, but not limited to, the company or organization preparing the CARD, for whom the CARD is prepared (e.g. NASA Johnson Space Center), the contract number, project sub-task order number, and any other pertinent information. Abstract - Define the high-level scope of the CARD, as it relates to testing, analyses, inspections, etc. Table of Contents. Tables - List of tables (e.g. Requirements Verification Matrix) and the associated page numbers. Figures - List of figures and the associated page number. Acronyms - List the applicable acronyms and their explanation Introduction - Discuss the purpose of the CARD and a description of the hardware. Include specific part numbers and dash numbers for the hardware being covered by the CARD. If available, include a line drawing of the hardware. All operational constraints for use of the hardware will be listed and explained in this section. Applicable Documents - List the documents which apply to the hardware (e.g. Program level documents, interface control documents, Safety and Mission Assurance documents, etc.). Requirements - List the functional and performance requirements, both general and unique, for the hardware. Also, list any exceptions to existing requirements. Verification: <ol style="list-style-type: none"> Certification Approach - Give a brief explanation of the approach to be used for certification. This shall include, but not limited to: The Certification Rationale, describing the certification methods (e.g. assessment, analysis, test, similarity). The Certification Plan, describing the sequence of test activity, use of the Verification Matrix, the use of test procedures, the documenting of test failures and non-compliances, etc. Acceptance Approach - Give a brief explanation of the approach to be used for acceptance. This shall include, but is not limited to: The requirement for acceptance testing of parts, components, assemblies, receiving tests, etc.; the requirement for Environmental Testing; the requirement for Pre-Delivery Acceptance (PDA) testing; and the requirement for Pre-Installation Acceptance (PIA) testing. PART TWO: This section is the Requirements Verification Matrix, in table format. This matrix shall list, but not limited to, the following information: <ol style="list-style-type: none"> Name and part number of the hardware The requirements Exceptions to the requirements 			

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

- d. The verification method (e.g. assessment, analysis, test, or similarity)
- e. The test procedure codes (e.g. FC-Fit Check, LT-Load Test, PDA, PIA, TT-Thermal Test, etc.)
- f. A comment block for special comments or explanations

C. FORMAT:

The format is defined by an outline or template associated with this data in the Design Data Management System (DDMS). The format may be varied to match the specific nature of the products being provided. The data shall be delivered in native format, and be compatible with Microsoft Word.

D. MAINTENANCE:

See Data Requirements List (DRL).

E. DISTRIBUTION:

Distribution shall be in accordance with the DRL.

F. APPLICABLE DOCUMENTS:

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

1. DRD Title Interface Control Document (ICD)	2. Date of current version 12/01/2011	3. DRL Line Item No. RV-06	RFP/Contract No. (Procurement completes) NNJ13HA01C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) This document defines the requirements for the interfaces between the flight product and payload, and program interfaces required to make the product fully functional.		5. DRD Category: (<i>check one</i>) <input checked="" type="checkbox"/> Technical <input type="checkbox"/> Administrative <input type="checkbox"/> SR&QA	
6. References (<i>Optional</i>) EA-WI-023 Project Management of GFE Flight Projects		7. Interrelationships (<i>e.g., with other DRDs</i>) TD-01 Flight Products System Requirements Review (SRR) Data Package TD-02 Preliminary Design Review Data Package	
8. Preparation Information (<i>Include complete instructions for document preparation</i>) A. SCOPE: The Interface Control Document (ICD) is the formal definition of the interfaces between products, other systems, and/or payloads and other program products. The ICD shall fully describe the quality characteristics of the interface so that the product is fully functional upon integration. B. CONTENT: The document is a complete description of the interface requirements and interface design details necessary to assure that the product is functional when integrated. It addresses the engineering design parameters associated with mechanical, biological, chemical, electrical, fluid, electronic, human factors, and software design. C. FORMAT: Depending on the nature of the flight product, multiple ICDs using different formats may be required. The format is defined by an outline or template associated with this data in the Design Data Management System (DDMS). The format may be varied to match the specific nature of the products being provided. The electronic data shall be delivered in native format, and be compatible with JSC standard office software loads, and standard engineering software. D. MAINTENANCE: See Data Requirements List (DRL). E. DISTRIBUTION: Distribution shall be in accordance with the DRL. F. APPLICABLE DOCUMENTS:			

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

1. DRD Title End Item Specification	2. Date of current version 12/01/2011	3. DRL Line Item No. RV-07	RFP/Contract No. (Procurement completes) NNJ13HA01C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) The Product Specification or End Item Specification (EIS) defines the engineering requirements for the design, manufacture, and test of the flight product.			5. DRD Category: (<i>check one</i>) <input checked="" type="checkbox"/> Technical <input type="checkbox"/> Administrative <input type="checkbox"/> SR&QA
6. References (<i>Optional</i>) EA-WI-023 Project Management of GFE Flight Projects		7. Interrelationships (<i>e.g., with other DRDs</i>) RV-03 Project Technical Requirements Specification (PTRS)	
8. Preparation Information (<i>Include complete instructions for document preparation</i>) A. SCOPE: The Product Specification or End Item Specification (EIS) defines the engineering requirements to be used that capture all NASA Programs, S&MA organization, and NASA Engineering requirements, and translates them into requirements for the product. The EIS shall define all technical requirements, and all constraints that apply to the safety, performance, design, operation, interoperability, reliability, maintainability, verifiability, and transportability of the end item. . B. CONTENT: The EIS contains the performance, functional, environmental, interface, maintainability, reliability and safety requirements for the flight product. All requirements contained in the Project Technical Requirements Specification are addressed, along with the detailed design constraints, requirements associated with the verification and validation approaches, and other requirements that are needed in order to meet the program level requirements. C. FORMAT: The format is defined by an outline or template associated with this data in the Design Data Management System (DDMS). The format may be varied to match the specific nature of the products being provided. The electronic data shall be delivered in native format, and be compatible with the JSC standard office software loads, and standard engineering software. D. MAINTENANCE: See Data Requirements List (DRL). E. DISTRIBUTION: Distribution shall be in accordance with the DRL. F. APPLICABLE DOCUMENTS:			

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

1. DRD Title Engineering Drawings and Model Files	2. Date of current version 12/01/2011	3. DRL Line Item No. RV-08	RFP/Contract No. (Procurement completes) NNJ13HA01C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) To provide the design data used to analyze, manufacture, install, verify, operate, modify, and maintain the products delivered under this contract.		5. DRD Category: (<i>check one</i>) <input checked="" type="checkbox"/> Technical <input type="checkbox"/> Administrative <input type="checkbox"/> SR&QA	
6. References (<i>Optional</i>) NASA-STD-0005 NASA Configuration Management Standard EA-WI-027 Configuration Management for Government Furnished Equipment		7. Interrelationships (<i>e.g., with other DRDs</i>) TD-03 Critical Design Review (CDR) Data Package	
8. Preparation Information (<i>Include complete instructions for document preparation</i>) A. SCOPE: This DRD establishes the requirements for content, format, control, and maintenance of drawings and associated model files prepared by the Contractor and/or obtained from subcontractors, or vendors for all products designed under this contract. B. CONTENT: The Contractor shall have the ability to submit and receive CAD generated engineering drawings including solid models, electrical/electronic schematics, software code, and printed circuit board layouts. The Contractor shall understand and participate as required in the review process that NASA follows in order to approve flight product drawings. Release of drawings through the Engineering Drawing Release System (EDRS) is considered a part of the Engineering Drawings delivery. All drawing native files, defining the as built configuration, shall be submitted with the flight products for acceptance by NASA and approval of the DD250. C. FORMAT: All drawings shall be submitted to NASA in electronic format, with native model files to the Design Data Management System (DDMS) unless otherwise addressed in the Task Order (TO). The format is defined by an outline or template associated with this data that is documented in JPR 8500.4 or contained in the DDMS. The format may be varied to match the specific nature of the products being provided. Solid models shall be submitted in ProEngineer. The TO may request an alternative format. Electrical/electronic schematics and printed circuit board layouts shall be transferred in electronic format compatible with ORCAD or Altium. The format of the drawing, shall comply with the guidelines in JPR 8500.4. Manufacturing processes shall be referenced to the appropriate specifications or industry standard (e.g. ASME, ANSI). When a contractor standard that is not available at the JSC is referenced, the full standard or process shall be provided as part of the drawing package. COTS products shall be identified by the vendor's part number, CAGE code (if available) and manufacturer's name and address. The parts list shall be submitted electronically in native format that is compatible with Microsoft Excel. Design Change Notices shall be submitted in native format compatible with Microsoft Word. D. MAINTENANCE: See Data Requirements List (DRL). Updated as required prior to Critical Design Reviews (CDRs). All updates are submitted for approval by the appropriate configuration control board, prior to obtaining authorization after the CDR. Updates shall be maintained in DDMS. E. DISTRIBUTION: Distribution shall be in accordance with the DRL. F. APPLICABLE DOCUMENTS: JPR 8500.4 Engineering Drawing Systems Manual			

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

1. DRD Title Flight Projects Authorization to Proceed Record	2. Date of current version 12/01/2011	3. DRL Line Item No. RV-09	RFP/Contract No. (Procurement completes) NNJ13HA01C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) Record the completion of a major design review and authorizes the Contractor to proceed to the next milestone.		5. DRD Category: (<i>check one</i>) <input checked="" type="checkbox"/> Technical <input type="checkbox"/> Administrative <input type="checkbox"/> SR&QA	
6. References (<i>Optional</i>) EA-WI-023 Project Management of GFE Flight Projects		7. Interrelationships (<i>e.g., with other DRDs</i>)	
8. Preparation Information (<i>Include complete instructions for document preparation</i>) A. SCOPE: This document provides a record that both NASA and the Contractor agree there are no major issues preventing completion of a design review milestone (Preliminary Design Reviews and Critical Design Reviews). It authorizes the Contractor to proceed to the next milestone. The Task Order may define additional project specific milestones that require this approval. B. CONTENT: This document shall contain the following information as a minimum: 1. Subject - Authorization to Proceed 2. Date subject document initiated 3. Name of completed milestone 4. Date of formal review 5. Open items and expected completion dates (Minor Items) 6. Example statement: "All major aspects of the XXX Design Review have been completed. Only minor open-items remain and these items will not affect cost, and schedule if resolved per the Open Item list. This document, once approved, authorizes the contractor to proceed to the next milestone." 7. Necessary approval signatures will be identified in Task Order to include: a. Applicable Contractor Representatives b. NASA Safety and Mission Assurance Representatives c. NASA Engineering representatives C. FORMAT: The Contractor's format is acceptable. The software used to develop this document shall be compatible with Microsoft Word. The record shall be submitted to the Design Data Management System (DDMS) for routing and approvals. D. MAINTENANCE: See Data Requirements List (DRL). E. DISTRIBUTION: Distribution shall be in accordance with the DRL. F. APPLICABLE DOCUMENTS:			

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

1. DRD Title Flight Products Verification and Validation Plan	2. Date of current version 12/01/2011	3. DRL Line Item No. RV-10	RFP/Contract No. (Procurement completes) NNJ13HA01C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) This plan defines the approach to verifying and validating that the flight products met the design requirements.		5. DRD Category: (<i>check one</i>) <input checked="" type="checkbox"/> Technical <input type="checkbox"/> Administrative <input type="checkbox"/> SR&QA	
6. References (<i>Optional</i>) EA-WI-023 Project Management of GFE Flight Projects EA-WI-025 GFE Flight Project Software and Firmware Development		7. Interrelationships (<i>e.g., with other DRDs</i>) RV-03 Project Technical Requirements Specification RV-07 End Item Specification SW-01 Flight Software Requirements Specification	
8. Preparation Information (<i>Include complete instructions for document preparation</i>) A. SCOPE: The Verification and Validation Document (V&VD) - Plan and Results (hereafter referred to as the V&VD) defines the plan for and documents the results of the Verification and Validation (V&V) activities for the GFE Flight Project. These activities confirm that the GFE flight items comply with their specifications, function properly, and are ready for use. This V&VD includes the V&V of functional capabilities and subsystem performance through analyses using non-real-time tools, tests using real-time test facilities, inspection as it applies to the manufacturing processes used in hardware fabrication, and software generation, and demonstration as it applies to human factors, serviceability, accessibility, and transportability of system features. B. CONTENT: EA-WI-023 contains a definition of the objectives of the V&V Plan, and gives the generic content for the NASA to NASA System Level V&V Plan. The Contractor shall produce this plan tailored to the type and scale of work described in the Task Order. An example of a V&VD outline is shown below: 1. GFE DESCRIPTION: a. Requirements Flow down b. Architecture c. End Item Architectures d. System X Ground Support Equipment e. Other Architecture Descriptions 2. VERIFICATION AND VALIDATION PROCESS: a. Verification Methods b. Validation Methods c. Certification Process d. Acceptance Testing 3. Verification and Validation Implementation: a. Verification & Validation Flow b. Test Articles c. Support Equipment d. Facilities 4. END ITEM VERIFICATION AND VALIDATION a. Developmental/Engineering Unit Evaluations b. Verification Activities c. Validation Activities d. Acceptance Testing Verification Matrix and Validation Matrix of the V&VD include a "Results" column for documenting the objective evidence (results) of verification activities performed during the Flight Production and Certification Phase. The first baseline of the V&VD is finalized at the CDR to establish the plan for V&V, and all columns of the appendices are completed except the "Results" column; i.e., results are To Be Supplied (TBS). During the Flight Production and Certification Phase, the planned V&V activities			

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(Based on JSC-STD-123. See work page for instructions.)

are performed and the “Results” column is documented (including TPS number, waiver, memo, or report, etc. as appropriate). The V&VD, with the “Results” column documented, is released with the appropriate revision number and change record information. This revised release of the V&VD, with associated “Results” documentation attached, form a part of the Certification Data Package.

C. FORMAT:

The format may be varied to match the specific nature of the products being provided. The electronic data shall be delivered in native format, and be compatible with JSC standard office software loads and standard engineering software.

D. MAINTENANCE:

See Data Requirements List (DRL).

E. DISTRIBUTION:

Distribution shall be in accordance with the DRL.

F. APPLICABLE DOCUMENTS:

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

1. DRD Title Flight Products Qualification Plan	2. Date of current version 12/01/2011	3. DRL Line Item No. RV-11	RFP/Contract No. (Procurement completes) NNJ13HA01C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) The Qualification Plan formally presents the approach to qualifying the first unit delivery of flight products.		5. DRD Category: (<i>check one</i>) <input checked="" type="checkbox"/> Technical <input type="checkbox"/> Administrative <input type="checkbox"/> SR&QA	
6. References (<i>Optional</i>) EA-WI-023 Project Management of GFE Flight Projects EA-WI-025 GFE Flight Project Software and Firmware Development		7. Interrelationships (<i>e.g., with other DRDs</i>) BP-03 Configuration Management Plan RV-10 Flight Products Verification and Validation Plan RV-12 Flight Products Qualification Test Procedures	
8. Preparation Information (<i>Include complete instructions for document preparation</i>) A. SCOPE: The Qualification Plan documents the approach to qualifying flight products. It describes in detail how the processes of testing, analysis, demonstration, and inspection shall be used to certify that contracted requirements have been met. B. CONTENT: The Qualification Plan defines how the flight products are qualified to meet the design requirements that have applied to the flight product. Analysis, test, inspection, demonstration, a combination of methods, or other approved methods may be used. The Qualification Plan addresses those engineering design aspects that need to be verified on the first delivery item in order to verify that a requirement has been met. This is typically performed on dedicated qualification products. C. FORMAT: The Qualification Plan does not have a specific format. The format will vary to match the specific nature of the products being provided. The electronic data shall be delivered in native format, and be compatible with the JSC standard office software loads and standard engineering software. The report shall be submitted to the Design Data Management System (DDMS). D. MAINTENANCE: See Data Requirements List (DRL). E. DISTRIBUTION: Distribution shall be in accordance with the DRL. F. APPLICABLE DOCUMENTS:			

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

1. DRD Title Flight Products Qualification Test Procedures	2. Date of current version 12/01/2011	3. DRL Line Item No. RV-12	RFP/Contract No. (Procurement completes) NNJ13HA01C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) To define all procedures and success criteria for testing new flight products or modified flight products, and to verify that the qualification unit meets design requirements.		5. DRD Category: (<i>check one</i>) <input checked="" type="checkbox"/> Technical <input type="checkbox"/> Administrative <input type="checkbox"/> SR&QA	
6. References (<i>Optional</i>)		7. Interrelationships (<i>e.g., with other DRDs</i>) RV-07 End Item Specification RV-10 Flight Products Verification and Validation Plan RV-14 Flight Products Qualification Report SW-01 Software Requirements Document	
8. Preparation Information (<i>Include complete instructions for document preparation</i>) A. SCOPE: To document the detailed procedures used to test flight products. B. CONTENT: The procedures shall contain the following: <ol style="list-style-type: none"> 1. Identification of the specific End Item being tested 2. Detailed description of the test objective 3. Description of all relevant test equipment and facility configuration 4. Full set of procedures 5. Criteria for passing or failing each test 6. Specification of the tolerances on all operational parameters with go, no-go criteria 7. Initial Settings for all Controls, Power Supply Voltages, etc. 8. Safety hardware that is mandatory to be verified operational prior to testing, with reference to procedures used C. FORMAT: The format is defined by an outline or template associated with this data on the Design Data Management System (DDMS). The format may be varied to match the specific nature of the products being provided. A Task Performance Sheet shall be used to document and control the detailed instructions needed to perform the procedure. The electronic data shall be delivered in native format, and be compatible with the JSC standard office software loads and standard engineering software. D. MAINTENANCE: See Data Requirements List (DRL). E. DISTRIBUTION: Distribution shall be in accordance with the DRL. F. APPLICABLE DOCUMENTS: JWI 8730.6 Task Performance Sheet (TPS)			

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

1. DRD Title Flight Products Acceptance Test Procedures	2. Date of current version 12/01/2011	3. DRL Line Item No. RV-13	RFP/Contract No. (Procurement completes) NNJ13HA01C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) To define all procedures and success criteria for testing of all flight hardware and the qualification unit in order to verify that each unit meets the expected engineering performance.		5. DRD Category: (<i>check one</i>) <input checked="" type="checkbox"/> Technical <input type="checkbox"/> Administrative <input type="checkbox"/> SR&QA	
6. References (<i>Optional</i>) JWI 8730.6 Task Performance Sheet (TPS)		7. Interrelationships (<i>e.g., with other DRDs</i>) RV-07 End Item Specification RV-10 Flight Products Verification and Validation Plan SW-01 Software Requirements Document TD-04 Acceptance Data Package (ADP)	
8. Preparation Information (<i>Include complete instructions for document preparation</i>) A. SCOPE The Acceptance Test Procedures document the detailed procedures used to test flight products and to write detailed procedures on a Task Performance Sheet (TPS). Complete procedures are required for acceptance of each Flight Product. B. CONTENT: The Acceptance Test Procedures shall contain the following: <ol style="list-style-type: none"> 1. Identification and configuration of the specific Flight Product being tested 2. Detailed description of the test objective(s) 3. Description of all relevant test equipment and facility(ies) used 4. Full set of test procedures 5. Criteria for passing or failing the test 6. Specification of the tolerances on all operational parameters with go and no-go criteria 7. Initial settings for all controls, power supply voltages, etc. 8. Safety hardware that is mandatory to be verified as operational prior to testing, with reference to the procedures used C. FORMAT: The format may be varied to match the specific nature of the products being provided. The electronic data shall be delivered in native format, and be compatible with the JSC standard office software loads and standard engineering software. D. MAINTENANCE: See Data Requirements List (DRL). E. DISTRIBUTION: Distribution shall be in accordance with the DRL. F. APPLICABLE DOCUMENTS:			

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

1. DRD Title Flight Product Qualification Report	2. Date of current version 12/01/2011	3. DRL Line Item No. RV-14	RFP/Contract No. (Procurement completes) NNJ13HA01C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) Records the results of the qualification process. This record is used to complete a portion of the overall verification of the flight product. It is modified through the life of the flight products as configuration changes are made that require additional qualification or repeated qualification.		5. DRD Category: (<i>check one</i>) <input checked="" type="checkbox"/> Technical <input type="checkbox"/> Administrative <input type="checkbox"/> SR&QA	
6. References (<i>Optional</i>) EA-WI-023 Project Management of GFE Flight Products EA-WI-025 GFE Flight Project Software and Firmware Development		7. Interrelationships (<i>e.g., with other DRDs</i>) RV-10 Flight Products Verification and Validation Plan RV-11 Flight Products Qualification Plan RV-12 Flight Hardware Qualification Test Procedures TD-15 EEE Parts List and Analysis Report	
8. Preparation Information (<i>Include complete instructions for document preparation</i>) A. SCOPE: This report records the results of qualification testing, analysis, inspections, and demonstrations used to verify the design and performance of flight products. This report addresses all objectives defined in the Qualification Plan. B. CONTENT: The Qualification Report contains all records used to verify that the flight products met all the requirements that were allocated to the qualification process in the Verification and Validation Plan. It contains the qualification test results, the analysis results, analytical models necessary to produce the analysis, record of the results of demonstrations, and results of inspections that are performed initially when hardware is first delivered. C. FORMAT: The format is defined by an outline or template associated with this data in the Design Data Management System (DDMS). The format may be varied to match the specific nature of the products being provided. The data shall be delivered in native format compatible with standard JSC software loads. D. MAINTENANCE: See Data Requirements List (DRL). E. DISTRIBUTION: Distribution shall be in accordance with the DRL. F. APPLICABLE DOCUMENTS:			

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

1. DRD Title Software Requirements Document	2. Date of current version 12/01/2011	3. DRL Line Item No. SW-01	RFP/Contract No. (Procurement completes) NNJ13HA01C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) Documents the functional, performance, and interface requirements that are to be met by the software flight products.			5. DRD Category: (<i>check one</i>) <input checked="" type="checkbox"/> Technical <input type="checkbox"/> Administrative <input type="checkbox"/> SR&QA
6. References (<i>Optional</i>) EA-WI-025 GFE Flight Project Software and Firmware Development NPR 7150.2 NASA Software Engineering Requirements		7. Interrelationships (<i>e.g., with other DRDs</i>) RV-03 Project Technical Requirements Specification RV-06 Interface Control Document SW-02 Software Development Plan	
8. Preparation Information (<i>Include complete instructions for document preparation</i>) A. SCOPE: This specification documents the functional, performance, and interface requirements for software used in flight products, and establish a requirement baseline prior to detailed design and production. This document also serves as the record for requirements changes throughout the life cycle of the project. Software requirements are defined from the Project Technical Requirements Specification (PTRS), the End Item Specification, the Certification and Acceptance Requirements Document, and the Interface Control Document. B. CONTENT: This specification defines the detailed functional, performance and interface requirements and implementation constraints for the software required to command, control, or monitor flight products. This specification will maintain a trace from the PTRS to the Software Requirements Specification (SRS). Unique identifiers will be used to designate safety-critical software requirements. C. FORMAT: The template of the SRS described in EA-WI-025 shall be used. This template is retained in the Design Data Management System (DDMS). The format may be varied to match the specific nature of the products being provided. The electronic data shall be delivered in native format, and be compatible with the JSC standard office software loads and standard engineering software. D. MAINTENANCE: See Data Requirements List (DRL). E. DISTRIBUTION: Distribution shall be in accordance with the DRL. F. APPLICABLE DOCUMENTS:			

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

1. DRD Title Software Development Plan	2. Date of current version 12/01/2011	3. DRL Line Item No. SW-02	RFP/Contract No. (Procurement completes) NNJ13HA01C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) The Software Development Plan defines the contractor's approach to software acquisition, development, certification, assurance, verification, and delivery.		5. DRD Category: (<i>check one</i>) <input checked="" type="checkbox"/> Technical <input type="checkbox"/> Administrative <input type="checkbox"/> SR&QA	
6. References (<i>Optional</i>) EA-WI-018 Use of Off-the-Shelf Software in Flight Projects Work Instruction EA-WI-025 GFE Flight Project Software and Firmware Development EA-WI-027 Configuration Management, Engineering Directorate NPR 7150.2 NASA Software Engineering Requirements NASA-STD-8739.8 Software Assurance Standard		7. Interrelationships (<i>e.g., with other DRDs</i>)	
8. Preparation Information (<i>Include complete instructions for document preparation</i>) A. SCOPE: The Software Development Plan documents the Contractor's planned approach to software acquisition, development, assurance, certification, verification, delivery, and operational utilization. It describes the software management approach, and the implementation of quality assurance throughout the effort. It defines how the project will meet the NPR 7150.2 development requirements. B. CONTENT: The plan shall address the approach for controlling the configuration of the software after the Critical Design Review (CDR), and shall be compatible with Engineering's Configuration Management processes defined in EA-WI-027. It shall address the compatibility of the Contractor's products with the products required by Engineering that are described in the Software Development Plan (SDP) outline provided in EA-WI-025. The plan shall describe the Contractor's use of Off-The-Self (OTS) software, which is compatible with Engineering process EA-WI-018. C. FORMAT: A template for the Software Development Plan is described in EA-WI-025. The template associated with this data is contained in the Design Data Management System (DDMS). The format may be varied to match the specific nature of the products being provided. The electronic data shall be delivered in native format compatible with JSC standard office software loads. D. MAINTENANCE: See Data Requirements List (DRL). E. DISTRIBUTION: Distribution shall be in accordance with the DRL. F. APPLICABLE DOCUMENTS:			

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

1. DRD Title Software Design Documents	2. Date of current version 12/01/2011	3. DRL Line Item No. SW-03	RFP/Contract No. (Procurement completes) NNJ13HA01C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) The purpose of the Software Design Document is to describe the design of the software and firmware that implements the software requirements.		5. DRD Category: (<i>check one</i>) <input checked="" type="checkbox"/> Technical <input type="checkbox"/> Administrative <input type="checkbox"/> SR&QA	
6. References (<i>Optional</i>) EA-WI-018 Use of Off-the Shelf Software in Flight Projects EA-WI-025 GFE Flight Project Software and Firmware Development		7. Interrelationships (<i>e.g., with other DRDs</i>) SW-01 Software Requirements Document TD-02 PDR Data Package TD-03 CDR Data Package	
8. Preparation Information (<i>Include complete instructions for document preparation</i>) A. SCOPE: This document describes the design of the software in sufficient detail that could be understood and modified by another knowledgeable programmer other than the developer. The Software Design Document defines the “how” of the software requirements. This document describes the rationale for the selected design. B. CONTENT: <ol style="list-style-type: none"> Software structure Module definitions, functions, and operations Algorithms High-level interface descriptions Threads of control Decomposition into compilation and code units Design of the Interfaces Consideration given to the changes that may be required during flight operation by non-programmers Mapping between the logical or functional design of the software, and its detailed design units C. FORMAT: A template for this data is presented in EA-WI-025. This template is retained in the Design Data Management System (DDMS). The format may be varied to match the specific nature of the products being provided. The electronic data shall be delivered in native format, compatible with JSC standard office software loads. D. MAINTENANCE: See Data Requirements List (DRL). E. DISTRIBUTION: Distribution shall be in accordance with the DRL. F. APPLICABLE DOCUMENTS:			

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

1. DRD Title Software Code	2. Date of current version 12/01/2011	3. DRL Line Item No. SW-04	RFP/Contract No. (Procurement completes) NNJ13HA01C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) Record the lines of code in developed software, or the set up files and data for commercial software.		5. DRD Category: (<i>check one</i>) <input checked="" type="checkbox"/> Technical <input type="checkbox"/> Administrative <input type="checkbox"/> SR&QA	
6. References (<i>Optional</i>) EA-WI-025 GFE Flight Project Software and Firmware Development EA-WI-027 Configuration Management Requirements		7. Interrelationships (<i>e.g., with other DRDs</i>) SW-03 Flight Products Software Design Document	
8. Preparation Information (<i>Include complete instructions for document preparation</i>) A. SCOPE: Software, like hardware, is an essential element of flight product performance. This data records all information necessary to produce the software. (See EA-WI-025) B. CONTENT: Software code includes all source code files, header files, make file/build scripts, data files, and software components such as software modules (functions, classes, objects, etc.), execution processes (processes, threads, rate groups, modes, etc.), or other data items (structures, shared memory pools, etc.) necessary to compile, build and run a properly working program. C. FORMAT: The format is defined by an outline or template associated with this data in the Design Data Management System (DDMS). The format may be varied to match the specific nature of the products being provided. The electronic data shall be delivered in native format, and be compatible with the operating system and platform that it operates on. Native format is ASCII text file except for the case where a data file needs to be in binary format, in order to comply with industry standards (JPEG, MPEG, etc.). D. MAINTENANCE: See Data Requirements List (DRL). E. DISTRIBUTION: Distribution shall be in accordance with the DRL. F. APPLICABLE DOCUMENTS:			

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

1. DRD Title Software Assurance Plan	2. Date of current version 12/01/2011	3. DRL Line Item No. SW-05	RFP/Contract No. (Procurement completes) NNJ13HA01C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) Software assurance planning is used to document the software activities to be performed during the life cycle phases.		5. DRD Category: (<i>check one</i>) <input type="checkbox"/> Technical <input type="checkbox"/> Administrative <input checked="" type="checkbox"/> SR&QA	
6. References (<i>Optional</i>)		7. Interrelationships (<i>e.g., with other DRDs</i>) SMA-06 Problem Reporting and Corrective Action TD-06 Certification Data Package	
8. Preparation Information (<i>Include complete instructions for document preparation</i>) A. SCOPE: Software Assurance includes: Quality Assurance, Quality Engineering, Verification and Validation, Non-conformance Reporting and Corrective Action, Safety Assurance, Software Reliability and Security Assurance. Software Assurance activities are conducted during the software development life cycle. The phases of the software development life cycle are: <ul style="list-style-type: none"> a. Concept and Initiation Phase b. Requirements Phase c. Design Phase d. Implementation Phase e. Integration and Test Phase f. Acceptance and Delivery Phase g. Operations/Maintenance Phase <u>Definitions:</u> Software Quality Assurance applies to all software developed for NASA, including: <ul style="list-style-type: none"> a. Deliverable software, b. Software included as part of deliverable hardware (including firmware), c. Non-deliverable software (commercially available or user-developed) used for development, fabrication, manufacturing process control, testing, or acceptance of deliverable software or hardware (test and acceptance software, software design, test, and analysis tools; compilers, etc.), d. Commercially available (COTS), reused, or Government Furnished Software (GFS). B. CONTENT: The Contractor shall provide a Software Assurance Plan in accordance NASA-STD-8739.8, Section 6.3. The Software Assurance Plan shall identify the software assurance approval authority responsible for the establishment, and composition of all software baselines, and any changes to the baseline. C. FORMAT: The Contractor's format. Deliver data in the Engineering Directorate Design Data Management System (DDMS) in native format compatible with JSC standard software loads. D. MAINTENANCE: See Data Requirements List (DRL). E. DISTRIBUTION: Distribution shall be in accordance with the DRL. F. APPLICABLE DOCUMENTS: NPR 7150.2, NASA Software Engineering Requirements NASA-STD-2202-93, Software Formal Inspections Standard NASA-STD-8719.13, NASA Software Safety Standard NASA-STD-8739.8, Software Assurance Standard			

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

1. DRD Title Software Test Description	2. Date of current version 12/01/2011	3. DRL Line Item No. SW-06	RFP/Contract No. (Procurement completes) NNJ13HA01C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) To describe the test preparations, test cases, and test procedures to be used to perform qualification testing of a Computer Software Configuration Item (CSCI) or a software system or subsystem.		5. DRD Category: (<i>check one</i>) <input checked="" type="checkbox"/> Technical <input type="checkbox"/> Administrative <input type="checkbox"/> SR&QA	
6. References (<i>Optional</i>) NPR 7150.2 NASA Software Engineering Requirements, Section 5.2.6 EA-WI-025 GFE Flight Project Software and Firmware Development		7. Interrelationships (<i>e.g., with other DRDs</i>) RV-10 Flight Products Verification and Validation Plan TD-02 Preliminary Design Review (PDR) Data Package	
8. Preparation Information (<i>Include complete instructions for document preparation</i>) A. SCOPE: The Software Test Description (STD) describes the test preparations, test cases, and test procedures to be used to perform qualification testing of a CSCI or a software system or subsystem. B. CONTENT: In accordance with the NPR 7150.2 NASA Software Engineering Requirements, the Software Test Description shall include: <ol style="list-style-type: none"> a. Test preparations, including hardware and software b. Test procedures, including: <ol style="list-style-type: none"> 1. Test identifier 2. System or CSCI requirements addressed by the test case 3. Prerequisite conditions 4. Test input 5. Instructions for conducting procedure 6. Expected test results, including criteria for evaluating results, and assumptions and constraints 7. Test pass/fail criteria 8. Requirements traceability 9. Identification of test configuration C. FORMAT: The format and content of the STD described in EA-WI-025 shall be provided unless specified otherwise in the Task Order. The Contractor's format shall be approved by the Task Order Manager. The product shall be in a Microsoft Office compatible format. D. MAINTENANCE: See Data Requirements List (DRL). E. DISTRIBUTION: Distribution shall be in accordance with the DRL. F. APPLICABLE DOCUMENTS:			

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

1. DRD Title Software Test Plan	2. Date of current version 12/01/2011	3. DRL Line Item No. SW-07	RFP/Contract No. (Procurement completes) NNJ13HA01C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) To develop, record, and assess plans for conducting computer software component level testing, software integration testing, software qualification testing, and system qualification testing of a software system.		5. DRD Category: (<i>check one</i>) <input type="checkbox"/> Technical <input type="checkbox"/> Administrative <input checked="" type="checkbox"/> SR&QA	
6. References (<i>Optional</i>) NPR 7150.2 NASA Software Engineering Requirements EA-WI-025 GFE Flight Project Software and Firmware Development		7. Interrelationships (<i>e.g., with other DRDs</i>) RV-10 Flight Products Verification and Validation Plan TD-02 Preliminary Design Review (PDR) Data Package	
8. Preparation Information (<i>Include complete instructions for document preparation</i>) A. SCOPE: The Software Test Plan (STP) describes the plans for software component level testing, software integration testing, software qualification testing, and system qualification testing of software systems. The plan describes the software test environment to be used for testing, identifies the tests to be performed, and provides schedules for environment, development, and test activities. The plan provides an overview of software testing, test schedules, and test management procedures. B. CONTENT: In accordance with the NPR 7150.2 NASA Software Engineering Requirements, the Software Test Plan shall include: <ol style="list-style-type: none"> 1. Test levels 2. Test types (e.g., unit testing, software integration testing, systems integration testing, end-to-end testing, acceptance testing, and regression testing) 3. Test classes 4. General test conditions 5. Test progression 6. Data recording, reduction, and analysis 7. Test coverage (breadth and depth) or other methods for ensuring sufficiency of testing 8. Planned tests, including items and their identifiers 9. Test schedules 10. Requirements traceability (or verification matrix), showing bi-directional traceability to requirements and design 11. Qualification testing environment, site, personnel, and participating organizations 12. Identification of testing requirements that drive software design decisions, e.g., special system level timing requirements/checkpoint restart C. FORMAT: The format and content of the STP, described in EA-WI-025, shall be provided unless specified otherwise in the Task Order. The Contractor's format shall be approved by the Task Order Manager. The product shall be in a Microsoft Office compatible format. D. MAINTENANCE: See Data Requirements List (DRL). E. DISTRIBUTION: Distribution shall be in accordance with the DRL. F. APPLICABLE DOCUMENTS:			

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

1. DRD Title Version Description Document (Software and /or Firmware)	2. Date of current version 12/01/2011	3. DRL Line Item No. SW-08	RFP/Contract No. (Procurement completes) NNJ13HA01C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) To identify and describe a software version consisting of one or more CSCIs (including any open source software). The description is used to release, track, and control software versions.		5. DRD Category: (<i>check one</i>) <input type="checkbox"/> Technical <input type="checkbox"/> Administrative <input checked="" type="checkbox"/> SR&QA	
6. References (<i>Optional</i>)		7. Interrelationships (<i>e.g., with other DRDs</i>) TD-04 Acceptance Data Package (ADP) TD-06 Certification Data Package	
8. Preparation Information (<i>Include complete instructions for document preparation</i>) A. SCOPE: The Version Description Document identifies and describes a software version consisting of one or more CSCIs (including any open source software). The description is used to release, track, and control software versions. B. CONTENT: Per EA-WI-025 and Version Description Document (VDD) template C. FORMAT: The format and content of the VDD, described in EA-WI-025, shall be provided unless specified otherwise in the Task Order. The product shall be in a Microsoft Office compatible format. D. MAINTENANCE: See Data Requirements List (DRL). E. DISTRIBUTION: Distribution shall be in accordance with the DRL. F. APPLICABLE DOCUMENTS: NPR 7150.2 NASA Software Engineering Requirements EA-WI-025 GFE Flight Project Software and Firmware Development			

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

1. DRD Title Flight Products Systems Requirements Review (SRR) Data Package	2. Date of current version 12/01/2011	3. DRL Line Item No. TD-01	RFP/Contract No. (Procurement completes) NNJ13HA01C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) This data package provides objective evidence that a complete set of requirements have been identified.		5. DRD Category: (<i>check one</i>) <input checked="" type="checkbox"/> Technical <input type="checkbox"/> Administrative <input type="checkbox"/> SR&QA	
6. References (<i>Optional</i>) EA-WI-023: Project Management of GFE Flight Projects		7. Interrelationships (<i>e.g., with other DRDs</i>) Other DRDs (see block 8)	
8. Preparation Information (<i>Include complete instructions for document preparation</i>) A. SCOPE: This design review establishes the requirements from the Engineering Directorate's customer organization, the Engineering Directorate, the S&MA Directorate, and supporting organizations for the flight products. The review scope includes: hardware, software, and associated ground support equipment. This data package provides the NASA review team evidence that the essential requirements needed for flight hardware performance success have been identified. B. CONTENT: A SRR Data Package includes up-to-date engineering information defined by other DRDs listed below, SRR specific data, other data defined in the Task Order, and a presentation package used for the SRR review. The presentation materials shall include the following: <ol style="list-style-type: none"> 1. Product (system, component, payload) description, major elements, expected performance 2. Project Deliverables 3. Constraints and Guidelines 4. Top Level Qualification Approach 5. Validation & Verification process 6. Specific material requested in the Task Order The following latest versions of these documents are to be provided: <ol style="list-style-type: none"> 1. Interface Control Documents (DRD RV-06) 2. Software Development Plan (DRD SW-02) 3. Project Technical Requirements Specification (DRD RV-03) C. FORMAT: The format is defined by an outline or template associated with this data in the Design Data Management System (DDMS). The format may be varied to match the specific nature of the products being provided. The electronic data shall be delivered to the Design Data Management System (DDMS) in native format compatible with JSC standard office software loads. D. MAINTENANCE: See Data Requirements List (DRL). The SRR package shall be appended by the minutes and Review Item Dispositions (RIDs) from this review and any additional data submitted during the review. Modifications to drawings or documents as a result of the RIDs are not considered a part of the SRR Data Package. The RIDs serve as documentation of the agreements made during the review. E. DISTRIBUTION: Distribution shall be in accordance with the DRL. F. APPLICABLE DOCUMENTS: JSC-STD-8080: Design and Procedural Standards			

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

1. DRD Title Preliminary Design Review (PDR) Data Package	2. Date of current version 12/01/2011	3. DRL Line Item No. TD-02	RFP/Contract No. (Procurement completes) NNJ13HA01C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) This data package contains the early engineering, safety, quality and project documentation to be reviewed by the NASA customer and their designated support in order to assure that the Contractor's intended products meet the requirements for safety, cost, performance, and schedule.		5. DRD Category: (<i>check one</i>) <input checked="" type="checkbox"/> Technical <input type="checkbox"/> Administrative <input type="checkbox"/> SR&QA	
6. References (<i>Optional</i>) EA-WI-023: Project Management of GFE Flight Products		7. Interrelationships (<i>e.g., with other DRDs</i>) Other DRDs (see block 8)	
8. Preparation Information (<i>Include complete instructions for document preparation</i>) A. SCOPE: The contractor is required to develop engineering data and to deliver the products defined by the content below: B. CONTENT: <ol style="list-style-type: none"> End Item Specification, DRD RV-07. Interface Control Documents, DRD RV-06. Preliminary Engineering Drawings (Represents 10% of all drawings that would be required). Software Requirements Document, DRD SW-01. Software Design Document, DRD SW-03. Phase I Risk Assessment Executive Summary Report (RAESR), DRD TD-19, and supporting safety documentation. Flight Products Verification and Validation Plan, DRD RV-10 (Project Requirement and Verification Document, DRD RV-04, for non-critical products). Preliminary EEE Parts List and Analysis Report, DRD TD-15. Flight Products Workmanship Specifications List, DRD TD-14 Contractor unique Workmanship Specifications Summary of Waivers/Deviations Requested or approved waivers Engineering Analysis, DRD TD-08 Summary PDR Presentation (See EA-WI-023 for sample content) Change Requests for Cost Efficiency Project Cost Projection (to submit for NASA only review) Other data specified in the Task Order C. FORMAT: The format is defined by an outline or template associated with this data in the Design Data Management System (DDMS). The format may be varied to match the specific nature of the products being provided. The electronic data shall be delivered in native format, and be compatible with JSC standard office software. D. MAINTENANCE: See Data Requirements List (DRL). The PDR package shall be appended by the minutes and Review Item Dispositions (RIDs) from this review and any additional data submitted during the review. Modifications to drawings or documents as a result of the RIDs are not considered a part of the PDR Data Package. E. DISTRIBUTION: Distribution shall be in accordance with the DRL. F. APPLICABLE DOCUMENTS:			

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

1. DRD Title Flight Product Critical Design Review (CDR) Data Package	2. Date of current version 12/01/2011	3. DRL Line Item No. TD-03	RFP/Contract No. (Procurement completes) NNJ13HA01C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) This data package contains the mature engineering, safety, quality and project documentation to be reviewed by the NASA customer and their designated support in order to assure that the contractor's intended products meet the requirements for safety, cost, performance and schedule.			5. DRD Category: (<i>check one</i>) <input checked="" type="checkbox"/> Technical <input type="checkbox"/> Administrative <input type="checkbox"/> SR&QA
6. References (<i>Optional</i>) EA-WI-023: Project Management of GFE Flight Projects		7. Interrelationships (<i>e.g., with other DRDs</i>) Other DRDs (see block 8)	
8. Preparation Information (<i>Include complete instructions for document preparation</i>) A. SCOPE: Deliver the products required for a Critical Design Review (CDR) data package as described below. B. CONTENT: <ul style="list-style-type: none"> q. Summary of the PDR Review Items Disposition that had actions to be completed by or prior to the CDR. r. End-Item Specification, DRD RV-07. s. Interface Control Documents, DRD RV-06. t. Engineering Drawings and Model Files, DRD RV-08, (90% of final drawings). u. Software Design Document, DRD SW-03. v. Phase II Risk Assessment Executive Summary Report (RAESR), DRD TD-19, and supporting safety documentation. w. Flight Products Verification and Validation Plan, DRD RV-10 (Project Requirement and Verification Document, DRD RV-04, for non-critical GFE). x. EEE Parts List and Analysis Report, DRD TD-15. y. Space Station Hardware FMEA and CIL, DRD TD-16. z. Limited Life Items List, DRD TD-05. aa. Flight Products Workmanship Specifications List, DRD TD-14. bb. Contractor Unique Workmanship Specifications cc. Summary of Waivers/Deviations Requested dd. Engineering Analysis, DRD TD-08. ee. Plan for the User's Guide. ff. Summary Presentation (See EA-WI-023 for content). C. FORMAT: The format of each data deliverable above that is a DRD is to be delivered in the format specified in that DRD. The format of the summary presentation and the other data shall be defined by the Contractor after consideration of the content for this presentation described in EA-WI-023. The electronic data shall be delivered to the Design Data Management System (DDMS) in native format. The native file shall be compatible with the JSC standard office software (e.g., Microsoft's Power Point or Microsoft's Word.) D. MAINTENANCE: See Data Requirements List (DRL). The CDR package shall be appended by the minutes and Review Item Dispositions (RIDs) from this review and any additional data submitted during the review. Modifications to drawings or documents as a result of the RIDs are not considered a part of the CDR Data Package. E. DISTRIBUTION: Distribution shall be in accordance with the DRL. F. APPLICABLE DOCUMENTS:			

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

1. DRD Title Acceptance Data Package (ADP)	2. Date of current version 12/01/2011	3. DRL Line Item No. TD-04	RFP/Contract No. (Procurement completes) NNJ13HA01C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) The ADP is a collection of documents that define the current status of flight products at the time of acceptance by NASA technical and quality representatives. The ADP contains a complete record of data deliverables that show that the product meets the engineering, and quality requirements for flight.		5. DRD Category: (<i>check one</i>) <input checked="" type="checkbox"/> Technical <input type="checkbox"/> Administrative <input checked="" type="checkbox"/> SR&QA	
6. References (<i>Optional</i>) EA-WI-023 Project Management of GFE Flight Projects EA-WI-025 GFE Flight Project Software and Firmware Development		7. Interrelationships (<i>e.g., with other DRDs</i>) TD-05 Limited Life Items List TD-07 Flight Product User's Guide TD-09 Flight Products Verification and Validation Report	
8. Preparation Information (<i>Include complete instructions for document preparation</i>) A. SCOPE: The ADP is the collection of documentation that provides information that established a complete status of the certified and verified deliverable flight products or support products for flight products as described in EA-WI-023 and EA-WI-025. It provides documentation of the "as-built" configuration. An ADP shall be submitted with shipment/transfer of each flight hardware/software product. B. CONTENT: The information required in a specific ADP is dependent on the nature of the products to be provided. The need for, and the content of the ADP shall be determined by the review team at the PDR or shall be specified at the start of a project. Items which may be contained in the ADP are given below. <ol style="list-style-type: none"> a. Description of product defining all functions and current approved design specifications. b. Waivers/deviations. c. Unexplained Anomalies. d. List of Shortages. e. Unplanned/Deferred Work. f. Pre-planned Assigned Work. g. Product Historical Log/notes/comments. h. Identification -As-Designed List, As-Built List. i. Operating Life Time/Operational Cycle. j. Age-Sensitive/Time-Action Items or Limited Life Items. k. Non-Standard Calibration Record. l. Repair Limitations. m. Pressure Vessel Data, including pressure cycle data (if certification limited). n. Non-Flight Hardware Temporary Installation (e.g. caps for shipping which are removed before flight). o. Materials Safety Data Sheets. p. Engineering Drawing Model Files (e.g., assembly level drawings). q. Software Model Files /Firmware Version Description Files (see EA-WI-025). r. Special instructions to maintain safety and functionality of the GFE during storage, handling, maintenance and disposal s. Certifications and references to supporting records including qualification test procedures; certification analysis; vendor data; justifications for variances from vendor specifications; certification inspection procedures for all design requirements and acceptance requirements; Certificates of Conformance; and Material Test Reports. (Include all numbers such as acceptance test procedures (ATP) numbers and ATP report numbers) <ol style="list-style-type: none"> 1) A specific section shall address Energy Storage Products. A log of all devices with corresponding references to certification records shall accompany the copies of certifications. 2) A specific section shall address Hazardous chemicals and materials. A log of hazardous chemical and materials with corresponding references to certification records shall accompany the copies of the certifications. t. User's Guide or Systems Operating Manual for products. u. Prepared form DD 250 for first time delivery or a copy of a previously approved DD250 showing NASA accepted the products and supporting information provided. This is the record indicating the contracted obligation for the flight products was accepted by the COTR. Signing the DD250 transfers responsibility from the Contractor to NASA. A copy of the signed DD250 is provided to the Contractor for their records. 			

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

- v. DD 1149 for second and subsequent deliveries of products that NASA already owns.
- w. Vendor Specification, Maintenance, and User Documentation for all primarily COTS or modified COTS items used.
- x. Revision sheet for listing updates to the document.

C. FORMAT:

The format depends on the program being supported. For the International Space Station (ISS), the Contractor shall be consistent with SSP 30695. The format is defined by an outline or template associated with this data in the Design Data Management System (DDMS). The format may be varied to match the specific nature of the products being provided. The electronic data shall be delivered to the Design Data Management System (DDMS) in native format compatible with JSC standard office software loads.

D. MAINTENANCE:

See Data Requirements List (DRL).

E. DISTRIBUTION:

Distribution shall be in accordance with the DRL.

F. APPLICABLE DOCUMENTS:

SSP 30695 Acceptance Data Package (ADP) Requirements Specifications

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

1. DRD Title Limited Life Items List	2. Date of current version 12/01/2011	3. DRL Line Item No. TD-05	RFP/Contract No. (Procurement completes) NNJ13HA01C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) This data will provide the necessary information and definitions to consistently and clearly identify limited life components to maintain flight products in a use ready condition. This information permits operations, logistics, and maintenance organizations, to plan for the timely removal and replacement of hardware identified with limited life, so as to ensure continuation of proper operation.		5. DRD Category: (<i>check one</i>) <input type="checkbox"/> Technical <input type="checkbox"/> Administrative <input checked="" type="checkbox"/> SR&QA	
6. References (<i>Optional</i>) SSP 30234, Failure Modes and Effects Analysis and Critical Items Requirements List for Space Station		7. Interrelationships (<i>e.g., with other DRDs</i>) TD-03 Flight Product Critical Design Review (CDR) Data Package TD-04 Acceptance Data Package	
8. Preparation Information (<i>Include complete instructions for document preparation</i>) A. SCOPE: Limited life includes limited shelf life, limited operating life, time-action control sensitive (including maintenance activities), or a combination of these. B. CONTENT: At a minimum, the following data shall be provided: A. Deliverable items: <ol style="list-style-type: none"> 1. Name 2. Part Number 3. Serial number 4. Contractor and Government Entity (CAGE) codes (all parts) 5. Life limiting parameter, material, or function (including analyses) 6. Restrictions or limitations on refurbishments 7. Mean Time Between Failures (MTBF) (only for items identified as criticality 1, 1R, or 2 per SSP 30234) 8. MTBF units (e.g. hours) B. For deliverable items that are, or contain, operating time/cycle sensitive items, this additional data shall be provided: <ol style="list-style-type: none"> 1. Time/cycle item part name 2. Time/cycle item part number 3. Time/cycle item part serial number 4. Time/cycle item part CAGE codes (all parts) 5. Specification requirement (allowable time/cycles) 6. Remaining time/cycles from point of delivery C. For deliverable items which are, or contain, age-sensitive/time-action items, these additional data shall be provided: <ol style="list-style-type: none"> 1. Age-sensitive/time-action item part number 2. Age-sensitive/time-action item part serial/lot number 3. Age-sensitive/time-action item part CAGE codes (all parts) 4. Age-sensitive/time-action item part birth date 5. Age-sensitive/time-action item part expiration date (action due date) 6. Type of action required (i.e., replace, service, inspect, etc.) 7. Last operation and/or servicing date (time-action items only) 8. Next operation and/or servicing date (time-action items only) C. FORMAT: The format is defined by an outline or template associated with this data in the Design Data Management System (DDMS). The format may be varied to match the specific nature of the products being provided. The data shall be delivered in native format, and be compatible with Microsoft Word.			

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

D. MAINTENANCE:

See Data Requirements List (DRL).

E. DISTRIBUTION:

Distribution shall be in accordance with the DRL.

F. APPLICABLE DOCUMENTS:

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

1. DRD Title Certification Data Package	2. Date of current version 12/01/2011	3. DRL Line Item No. TD-06	RFP/Contract No. (Procurement completes) NNJ13HA01C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) To provide objective evidence to NASA that the flight product meets the requirements. The certification data package, when approved, is the NASA certification.		5. DRD Category: (<i>check one</i>) <input type="checkbox"/> Technical <input type="checkbox"/> Administrative <input checked="" type="checkbox"/> SR&QA	
6. References (<i>Optional</i>)		7. Interrelationships (<i>e.g., with other DRDs</i>) Other DRDs (See Block 8)	
8. Preparation Information (<i>Include complete instructions for document preparation</i>) A. SCOPE: The Certification Data Package contains all data needed to determine, that the item or product meets design and safety requirements. B. CONTENT: a. GCAR (JSC form 1296) (See JSC form 1296A for additional information and instructions) (DRD TD-13) b. Flight Products Verification and Validation Plan (DRD RV-10) with Verification Matrix c. Flight Products Verification and Validation Report (DRD TD-09) (includes the verification matrix with requirements mapped to verification data) 1. Flight Products Qualification Report (DRD RV-14) i. Engineering Analysis (DRD TD-08). Stress, thermal, EEE parts stress/de-rating, structural, off-gassing, flammability, toxicological, others specific to the product. ii. Qualification Test Reports (DRD TD-11) iii. Manufacturer's Data used for a verification of hazard control iv. Materials Certification v. Fracture Control Report and Materials Usage Agreement vi. Certification Compliance Matrix, JSC-STD-8080 Compliance Matrix, and SSP 50021 Compliance Matrix 2. Acceptance Report for Qualification Unit or first flight unit 3. List of Approved Operational Controls 4. Structural Integrity Verification Plan 5. Verification Tracking Log (VTL) 6. Inspections reports 7. Demonstrations reports d. Risk Assessment Executive Summary Report (RAESR) (DRD TD-19) (FMEA and hazard analysis) e. Waivers, deviations and NCRs f. Discrepancy Reports and Problem Closure Reports Relevant to Certification g. Limited Life Items List (DRD TD-05) h. Engineering Drawings and Model Files (DRD RV-08) (not required if drawings are available in DDMS) i. Current Project Technical Requirements Specification or Original PTRS with All Approved Changes that affect the content of the PTRS (DRD RV-03) j. Assessment of Criticality (JF1380) k. Software / Firmware Version Description Document (VDD) [see EA-WI-025] C. FORMAT: The format of the items in this list, are defined by the forms defined in EA-WI-023, Table 7.5.3-1 or the associated DRD. The electronic data shall be delivered to the Design Data Management System (DDMS) in native format compatible with JSC standard office software loads. D. MAINTENANCE:			

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

See Data Requirements List (DRL).

E. DISTRIBUTION:

Distribution shall be in accordance with the DRL.

F. APPLICABLE DOCUMENTS:

EA-WI-023: Project Management of GFE Flight Projects

EA-WI-025: GFE Flight Project Software and Firmware Development

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

1. DRD Title Flight Product User's Guide	2. Date of current version 12/01/2011	3. DRL Line Item No. TD-07	RFP/Contract No. (Procurement completes) NNJ13HA01C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) To provide all necessary information on how the flight product or ground support product is to be operated, serviced and maintained.		5. DRD Category: (<i>check one</i>) <input checked="" type="checkbox"/> Technical <input type="checkbox"/> Administrative <input type="checkbox"/> SR&QA	
6. References (<i>Optional</i>) EA-WI-023: Project Management of GFE Flight Products EA-WI-025: GFE Flight Project Software and Firmware Development		7. Interrelationships (<i>e.g., with other DRDs</i>) TD-04 Acceptance Data Package (ADP)	
8. Preparation Information (<i>Include complete instructions for document preparation</i>) A. SCOPE: The User's Guide is a compilation of information that is required for the user to operate, service, and maintain the hardware and software, without assistance from the providing contractor. B. CONTENT: The guide shall define procedures that assure safe and efficient handling of the hardware and software. It shall identify hazards that may be encountered throughout the procedures, along with all controls for the hazard. C. FORMAT: The User's Guide may contain text, graphics, video, or photographic content. The Contractor shall use the Contractor's formats for the written portions of the guide. Those portions of the guide that may be used by the flight crew shall have a flight crew representative assessment of the final product, and corrections made prior to final submittal. Electronic graphical procedures shall be provided in Pro-E format. A suggested format for software can be found in EA-WI-025 "GFE Flight Project Software and Firmware Development." The format may be varied to match the specific nature of the products being provided. The electronic data shall be delivered to the Design Data Management System (DDMS) in native format compatible with JSC standard office software loads and standard engineering software. D. MAINTENANCE: See Data Requirements List (DRL). E. DISTRIBUTION: Distribution shall be in accordance with the DRL. F. APPLICABLE DOCUMENTS:			

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

1. DRD Title Engineering Analysis	2. Date of current version 12/01/2011	3. DRL Line Item No. TD-08	RFP/Contract No. (Procurement completes) NNJ13HA01C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) Engineering analysis is performed to provide design facts that are used as part of the 1 st item certification, certification of design changes, and certification of existing designs that are used beyond original certification limits. Analysis is relied upon to assure safety, predict performance, and to understand failures.		5. DRD Category: (<i>check one</i>) <input checked="" type="checkbox"/> Technical <input type="checkbox"/> Administrative <input type="checkbox"/> SR&QA	
6. References (<i>Optional</i>) EA-WI-023: Project Management of GFE Flight Projects EA-WI-025: GFE Flight Project Software and Firmware Development		7. Interrelationships (<i>e.g., with other DRDs</i>) TD-02 PDR Data Package TD-03 Flight Product CDR Data Package TD-06 Certification Data Package TD-19 Risk Assessment Executive Summary Report (RAESR)	
8. Preparation Information (<i>Include complete instructions for document preparation</i>) A. SCOPE: Engineering analysis to be performed at all stages throughout a project as defined in EA-WI-023 and EA-WI-025. Analysis can be explicitly identified in a Task Order or implicitly identified by requiring whole projects or phases of project as defined in the work instructions. B. CONTENT: Engineering analysis required for design, performance prediction, and off-nominal assessment will be required. Some types of analysis that are frequently required in complex flight products are: <ol style="list-style-type: none"> 1. Process Performance and Control 2. Stress and Fracture Control 3. Thermal Stress Analysis 4. Electromagnetic Effects 5. EEE Parts Stress and De-rating 6. Operational Life 7. Systems Integration and Off-Nominal Performance 8. Stored Energy Impact and Isolation 9. Materials Compatibility <ol style="list-style-type: none"> a. off-gassing, b. corrosion, c. flammability, d. toxicity, e. performance, f. life 10. Software Classification Assessment (Form JF 1704) 11. Code Assessment and Peer Reviews 12. Software Timing Analysis 13. Safety <ol style="list-style-type: none"> a. Hazard, b. Operability, c. Ground Handling 14. Failure Modes and Effects Analysis 15. Failure Investigation Analysis 16. Reliability Analysis <p>The analysis performed and report shall include a description of the assumptions made, sufficient technical details that analysis experts in the specific technical discipline can understand to determine the adequacy of the analysis, and a description of the system, both hardware and software.</p>			

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

C. FORMAT:

Format for reporting will be specified in the Task Order. If a specific format is not requested, the contractor's format is to be used. The format may be varied to match the specific nature of the products being provided. The electronic data shall be delivered to the Design Data Management System (DDMS) in native format compatible with JSC standard office software loads and standard engineering software. Analysis performed on flight products that are configuration controlled shall be referenced to the configuration of the product.

D. MAINTENANCE:

See Data Requirements List (DRL).

E. DISTRIBUTION:

Distribution shall be in accordance with the DRL.

F. APPLICABLE DOCUMENTS:

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

1. DRD Title Flight Products Verification and Validation Report	2. Date of current version 12/01/2011	3. DRL Line Item No. TD-09	RFP/Contract No. (Procurement completes) NNJ13HA01C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) Provides the Verification Matrix from the V&V Plan with links to the information that supports the requirements have been met. Provides a complete record of the detailed assessments from testing, analysis, demonstration, and inspection.		5. DRD Category: (<i>check one</i>) <input checked="" type="checkbox"/> Technical <input type="checkbox"/> Administrative <input type="checkbox"/> SR&QA	
6. References (<i>Optional</i>) EA-WI-023: Project Management of GFE Flight Projects EA-WI-025: GFE Flight Project Software and Firmware Development		7. Interrelationships (<i>e.g., with other DRDs</i>) RV-08 Engineering Drawings and Model Files RV-10 Flight Product V&V Plan RV-14 Flight Products Qualification Report SW-03 Software Design Documents SW-04 Software Code TD-04 Acceptance Data Package TD-06 Certification Data Package	
8. Preparation Information (<i>Include complete instructions for document preparation</i>) A. SCOPE: This report consists of all the Verification and Validation (V&V) data provided to confirm that the flight products comply with their specifications, function properly in the complete integrated environment with other actual flight hardware products, and are ready for use in flight. B. CONTENT: EA-WI-023 describes the broad objectives of the V&V Plan. This plan provides the detail for the four methods used to satisfy verification requirements: 1) inspection, 2) analysis, 3) demonstration, 4) test, or 5) a combination of these. The configuration of the products being verified and validated at the time of performance of the verification activity shall be recorded in this report. It includes the reference to the data record that demonstrates that the requirement has been met or includes the data if it has not been formally reported. C. FORMAT: Configuration of the flight products are documented using Engineering Drawings DRD (RV-08), Software Code DRD (SW-04) and Software Design Documents DRD (SW-03). Engineering Analysis uses the format defined in the Engineering Analysis DRD (TD-08). The V&V Report shall contain the Qualification Report DRD (RV-14) and Acceptance Data Package DRD (TD-04) for an example product. The format is defined by an outline or template associated with this data in the Design Data Management System (DDMS). The format may be varied to match the specific nature of the products being provided. The electronic data shall be delivered in native format compatible with JSC standard office software loads and standard engineering software. The report shall be submitted to the Design Data Management System (DDMS). D. MAINTENANCE: See Data Requirements List (DRL). E. DISTRIBUTION: Distribution shall be in accordance with the DRL. F. APPLICABLE DOCUMENTS:			

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

1. DRD Title Space Station Reliability and Maintainability Predictions Report	2. Date of current version 12/01/2011	3. DRL Line Item No. TD-10	RFP/Contract No. (Procurement completes) NNJ13HA01C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) To status quantitative R&M characteristics of Space Station functions, capabilities, and equipment.		5. DRD Category: (<i>check one</i>) <input type="checkbox"/> Technical <input type="checkbox"/> Administrative <input checked="" type="checkbox"/> SR&QA	
6. References (<i>Optional</i>)		7. Interrelationships (<i>e.g., with other DRDs</i>)	
8. Preparation Information (<i>Include complete instructions for document preparation</i>) A. SCOPE: The report shall consist of the Reliability and Maintainability predictions for Space Station flight hardware for: components failure rate data for end items; Mean Maintenance Crewhours per Year (MMCH/Y) predictions, for on-orbit maintainable equipment, as required; quantitative status of R&M characteristics of Space Station functions, capabilities and equipment and Failure Detection, Isolation, and Recovery (FDIR) assessment data. B. CONTENT: The report shall consist of two volumes, as follows. Each volume may be submitted and approved independently. The volumes may be further subdivided according to subsystem architecture and/or end items, as appropriate. Volume I <ol style="list-style-type: none"> 1) General and programmatic information 2) Top-level ground rules and assumptions used in performing the R&M analyses. Volume II <ol style="list-style-type: none"> 1) R&M source data in accordance with Table 1. (For simple, non-complex items that are not integrated into ISS vehicle systems, only the data elements with an asterisk are required.) 2) Failure Detection Isolation and Recovery Assessment Information (see Table 2). 3) Perform Preventive Maintenance Assessment per decision matrix (see Figure 1). <p style="text-align: center;"><u>NEED DATE or MILESTONE REQUIRING R&M PREDICTIONS REPORTS SUPPORT:</u></p> <p>The R&M Predictions Report data requirements applies to all flight hardware and must be assessable in the JSC Design Data Management System (DDMS) 7 days prior to the PDR or the CDR that covers the first flight deployment of the hardware. The data provided for the PDR may be preliminary data. If the initial submittal is preliminary data, final data must be provided to support a subsequent CDR.</p>			

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

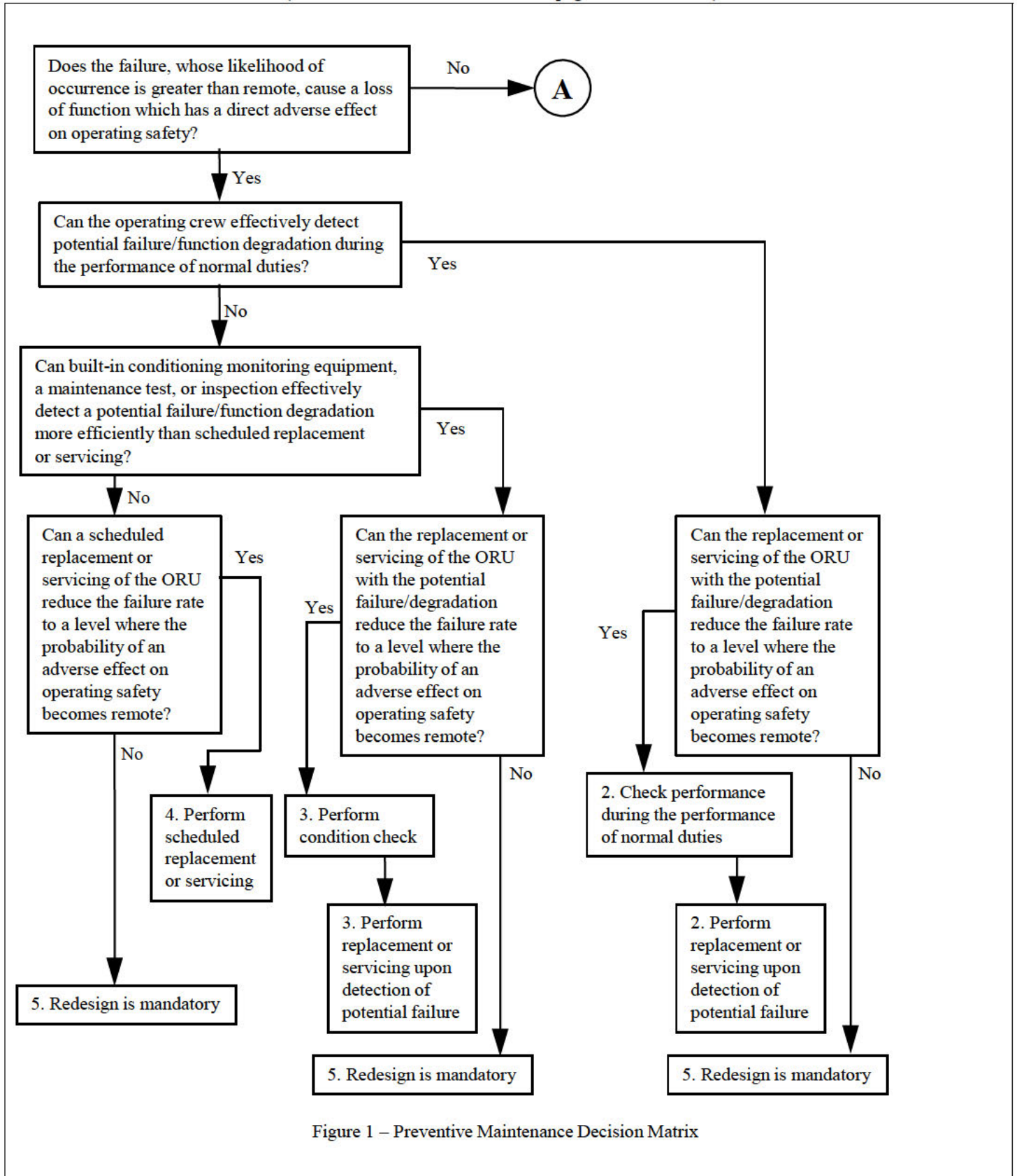


Figure 1 – Preventive Maintenance Decision Matrix

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

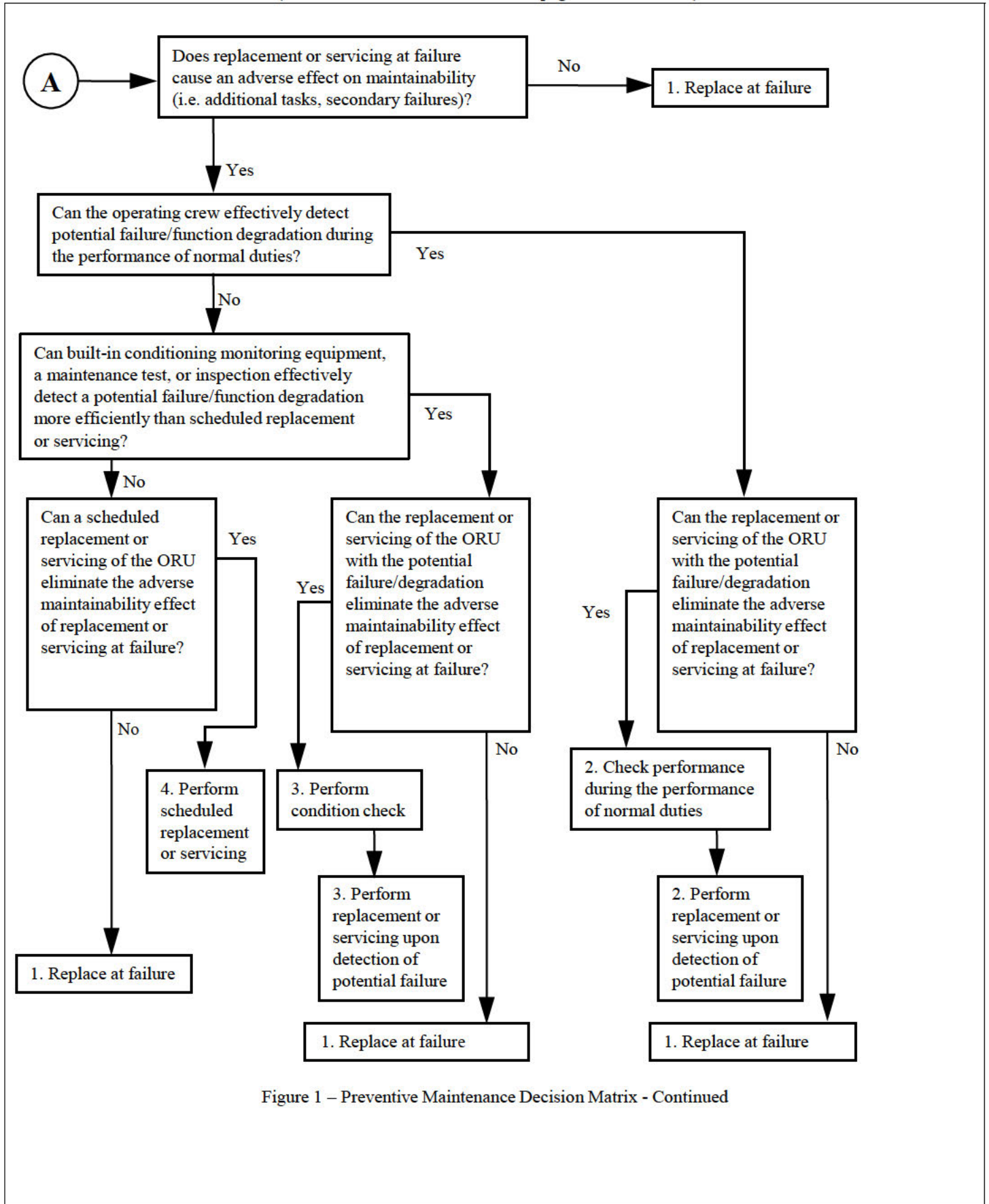


Figure 1 – Preventive Maintenance Decision Matrix - Continued

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

TABLE 1: R&M SOURCE DATA FIELD DEFINITION TABLE

Col	DESCRIPTION																
A.	Drawing/Part Number* – Drawing/Part number in the Vehicle Master Data Base (VMDB).																
B.	SRU Map* – Maps SRUs to their ORUs.																
C.	Item Name* – R&M attributes shall be entered for each item which is to be maintained on orbit. The VMDB nomenclature shall be used for all R&M reporting.																
D.	Location installed*																
E.	Flight Manifested*																
F.	Flight Activated*																
G.	Hardware Criticality*																
H.	Assembly Duty Cycle																
I.	Operational Duty Cycle																
J.	Assembly Complete Duty Cycle																
K.	Dormant Failure Rate																
L.	EVA or IVA Mean Time To Repair (MTTR) Mean Time to Repair – Nominal elapsed crew hours at the worksite. The MTTR includes remove, replace and fault detection time. Computed for zero-g using task standards.																
M.	EVA or IVA Overhead Time																
N.	IVA mean time to repair for an EVA task																
O.	IVA Overhead Time for an EVA task																
P.	SPDM/SSRMS mean time to repair																
Q.	SPDM Overhead Time																
R.	EVA, IVA/EVA/Robotics Code – The code which describes the level of robotic compatibility of the equipment. The codes are as follows:																
	<table> <tr> <th>CODE</th><th>DESCRIPTION</th></tr> <tr> <td>0</td><td>Equipment located in pressurized area.</td></tr> <tr> <td>1</td><td>Equipment can be maintained only by EVA crew member. No robotic support is required or intended.</td></tr> <tr> <td>2</td><td>Equipment can be maintained using SPDM without EVA. Equipment is SPDM compatible. Compatibility consists of Equipment to SPDM interface. EVA can provide maintenance support in a backup role.</td></tr> <tr> <td>3</td><td>Equipment can be maintained using SSRMS without EVA. Equipment is SSRMS compatible. Compatibility consists of Equipment to SSRMS interface. Equipment must be equipped with SSRMS grapple fixture. EVA can provide maintenance support in a backup role.</td></tr> <tr> <td>4</td><td>Equipment requires combined SPDM/EVA operations for maintenance.</td></tr> <tr> <td>5</td><td>Equipment requires EVA crew member to be positioned on SSRMS for access to the worksite. Equipment requires no robotic compatibility.</td></tr> <tr> <td>6</td><td>Equipment requires the Mobile Servicing System/SSRMS for transportation to the EVA worksite. Dimensions or mass of equipment to be replaced are not compatible with EVA/CETA translation. Equipment must be equipped with SSRMS grapple fixture.</td></tr> </table>	CODE	DESCRIPTION	0	Equipment located in pressurized area.	1	Equipment can be maintained only by EVA crew member. No robotic support is required or intended.	2	Equipment can be maintained using SPDM without EVA. Equipment is SPDM compatible. Compatibility consists of Equipment to SPDM interface. EVA can provide maintenance support in a backup role.	3	Equipment can be maintained using SSRMS without EVA. Equipment is SSRMS compatible. Compatibility consists of Equipment to SSRMS interface. Equipment must be equipped with SSRMS grapple fixture. EVA can provide maintenance support in a backup role.	4	Equipment requires combined SPDM/EVA operations for maintenance.	5	Equipment requires EVA crew member to be positioned on SSRMS for access to the worksite. Equipment requires no robotic compatibility.	6	Equipment requires the Mobile Servicing System/SSRMS for transportation to the EVA worksite. Dimensions or mass of equipment to be replaced are not compatible with EVA/CETA translation. Equipment must be equipped with SSRMS grapple fixture.
CODE	DESCRIPTION																
0	Equipment located in pressurized area.																
1	Equipment can be maintained only by EVA crew member. No robotic support is required or intended.																
2	Equipment can be maintained using SPDM without EVA. Equipment is SPDM compatible. Compatibility consists of Equipment to SPDM interface. EVA can provide maintenance support in a backup role.																
3	Equipment can be maintained using SSRMS without EVA. Equipment is SSRMS compatible. Compatibility consists of Equipment to SSRMS interface. Equipment must be equipped with SSRMS grapple fixture. EVA can provide maintenance support in a backup role.																
4	Equipment requires combined SPDM/EVA operations for maintenance.																
5	Equipment requires EVA crew member to be positioned on SSRMS for access to the worksite. Equipment requires no robotic compatibility.																
6	Equipment requires the Mobile Servicing System/SSRMS for transportation to the EVA worksite. Dimensions or mass of equipment to be replaced are not compatible with EVA/CETA translation. Equipment must be equipped with SSRMS grapple fixture.																
S.	System*																
T.	Function* – Identify the function supported by the ORU.																
U.	Developer																
V.	<i>Reserved</i>																
W.	<i>Reserved</i>																
X.	<i>Reserved</i>																
Y.	<i>Reserved</i>																
Z.	<i>Reserved</i>																
AA.	Predicted Mean Time Between Failures (MTBF) – Mean Time Between Failures (“Hot” or “operating” MTBF). The estimated average time in hours between failures due to random effects under nominal operating conditions at the maintainable equipment level. Redundancy within the maintainable equipment item which is not necessary to meet failure tolerance requirements (e.g., component redundancy used for reducing maintenance demand) shall be modeled so as to improve the reported MTBF. Worst case estimates shall not be used. Failures of components that are used only during installation or removal (such as deployment motors and mechanisms) shall be excluded where maintenance would not be caused by the components failure. Failures of components that cause degradation of the equipment within the specified limit shall also be excluded. For complex items having components operating at different duty cycles, the operating MTBF																

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

	may be adjusted to a duty cycle of 1.0. MTBF does not include failures due to Micrometeoroid/Orbital Debris (MM/OD).														
AB.	Operational Mean time between failures (Calculated)														
AC.	MTBF Upper Bound														
AD.	MTBF Lower Bound														
AE.	Predicted Limited Life* – Expected time to failure (in calendar years at the stated average duty cycles) due to wear-out, degradation, or fatigue conditions in the absence of random failures for age or cycle life limited items. Wearout life should be used as an estimate of characteristic life (L Char) in the algorithms (Table 3). Best available data and engineering judgment should be used to estimate wearout life as the time when 63 percent of a population would have failed due to wearout/aging conditions alone. Minimum design life shall not be reported as the wearout life. No life limit should be reported if the expected wearout life is 20 years or greater.														
AF.	Operational Limited Life														
AG.	Life Beta														
AH.	Located internal (0), external (1)														
AI.	External crew size for corrective maintenance														
AJ.	Internal crew size for corrective maintenance														
AK.	<i>Reserved</i>														
AL.	TypeName – Reliability classification. The six reliability class codes are as follows:														
	<table> <tr> <th>CODE</th><th>DESCRIPTION</th></tr> <tr> <td>Electronic</td><td>Equipment that primarily contains digital or low power analog electronics. Moving parts are high power electrical equipment that normally constitute less than 5% of the item failure rate in the classification. Electronic type will typically have a fairly high level of Built-In-Testing (BIT).</td></tr> <tr> <td>Electrical</td><td>Equipment that performs electrical power distribution, power storage, signal distribution, and/or radio frequency radiation functions. Moving parts or low power electronics normally constitute less than 5% of the item failure rate in this classification. Electrical types will typically have a low level of BIT.</td></tr> <tr> <td>Electro-Mechanical</td><td>Equipment that contains electrical/electronic and mechanical parts, including devices which use electrical power to produce mechanical motion, and devices which use mechanical motion to produce electrical power or signals. Electro - Mechanical items should contain more than 5% electrical/electronic and more than 5% mechanical parts by failure rate contribution in this classification.</td></tr> <tr> <td>Mechanical</td><td>Equipment that primarily consists of moving parts, fluid handling equipment (including thermal systems), and or seals. High power electrical equipment or low power electronics normally constitute less than 5% of the failure rate in this classification.</td></tr> <tr> <td>Structural with Crew Contact</td><td>Equipment that is primarily structural but encounters planned crew contact or provides equipment protection. This type specifically includes doors, covers, panels, hatches, micro meteoroid/debris shields, and thermal blankets.</td></tr> <tr> <td>Structural with no crew Contact</td><td>Equipment that is load bearing. Moving parts, electronics, and electrical equipment normally constitute less than 5% of the failure rate in this classification. Structural items should not normally encounter planned crew contact.</td></tr> </table>	CODE	DESCRIPTION	Electronic	Equipment that primarily contains digital or low power analog electronics. Moving parts are high power electrical equipment that normally constitute less than 5% of the item failure rate in the classification. Electronic type will typically have a fairly high level of Built-In-Testing (BIT).	Electrical	Equipment that performs electrical power distribution, power storage, signal distribution, and/or radio frequency radiation functions. Moving parts or low power electronics normally constitute less than 5% of the item failure rate in this classification. Electrical types will typically have a low level of BIT.	Electro-Mechanical	Equipment that contains electrical/electronic and mechanical parts, including devices which use electrical power to produce mechanical motion, and devices which use mechanical motion to produce electrical power or signals. Electro - Mechanical items should contain more than 5% electrical/electronic and more than 5% mechanical parts by failure rate contribution in this classification.	Mechanical	Equipment that primarily consists of moving parts, fluid handling equipment (including thermal systems), and or seals. High power electrical equipment or low power electronics normally constitute less than 5% of the failure rate in this classification.	Structural with Crew Contact	Equipment that is primarily structural but encounters planned crew contact or provides equipment protection. This type specifically includes doors, covers, panels, hatches, micro meteoroid/debris shields, and thermal blankets.	Structural with no crew Contact	Equipment that is load bearing. Moving parts, electronics, and electrical equipment normally constitute less than 5% of the failure rate in this classification. Structural items should not normally encounter planned crew contact.
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Electrical	Equipment that performs electrical power distribution, power storage, signal distribution, and/or radio frequency radiation functions. Moving parts or low power electronics normally constitute less than 5% of the item failure rate in this classification. Electrical types will typically have a low level of BIT.														
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AM.	Predicted Kfactor														
AN.	Operational Kfactor														
AO.	Remove and Replace PM frequency - MTBPM Removal/Replacement* - Mean Time Between Preventive Maintenance for Removal & Replacement – The average time in calendar hours between all preventive maintenance (PM) replacements. Care should be given when determining if preventive maintenance replacements should be performed in place of waiting until maintenance is required due to gradual performance degradation and eventual wearout (life limits).														
AP.	Remove and Replace PM time*														
AQ.	Remove and Replace PM crew size*														
AR.	Remove and Replace PM overhead time														
AS.	Servicing and Inspect PM frequency MTBPM - Inspect/Service* - Mean Time Between Preventive Maintenance for														

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

Inspection – The average time between PM inspections and/or servicing expressed in calendar hours. A single MTBPM - Inspect/Service parameter shall be developed for any equipment items requiring multiple servicing and/or inspection actions.

AT. Servicing and Inspect PM time*
 AU. Servicing and Inspect PM crew size*
 AV. Servicing and Inspect PM overhead time
 AW. *Reserved*
 AX. *Reserved*
 AY. Flight Quantity*
 AZ. Old Part Number
 BA. Integrator
 BB. Old Part Name
 BC. OEM Name
 BD. ORU – Identifies if the item is an ORU or SRU
 BE. Comments

TABLE 2: FAILURE DETECTION DATA DEFINITION TABLE

Description	Definition
Function	Function supported by the ORU
ORU	Identify the ORU associated with the failure mode code.
Failure Mode Code	Reference the failure mode code for each ORU failure mode as identified in the FMEA.
Cat/Crit Hazard < 24 Hours (Y/N)	May a critical or catastrophic hazard occur in less than 24 hours as a result of the failure mode (Yes or No)
Detection: A/M/N	Specify whether A utomatic, M anual or N o detection is provided for the failure mode.
Detection: Failure Signature Algorithms	Describe the algorithm (including sensor/system states) used to detect the failure mode.
Detection: SRS/LSAR Reference	Provided a reference to the SRS that documents automatic detection, and/or the LSAR that documents manual detection procedures.
Safe: A/M/N	Specify whether A utomatic, M anual or N o on orbit safing is provided for the failure mode.
Safe: Algorithms	Describe the algorithm (including sensor/system states) used to safe a hazard that results from the failure mode.
Safe: SRS/LSAR Reference	Provided a reference to the SRS that documents automatic safing, and/or the LSAR that documents manual safing procedures.

C. FORMAT:

R&M Source Data fields in Table 1 shall be submitted in an electronic table compatible with Microsoft Excel. Volume I and Volume II shall be submitted in a document compatible with Microsoft Word. The electronic data shall be delivered to the Design Data Management System (DDMS) in native format compatible with JSC standard office software loads.

D. MAINTENANCE:

See R&M Source Data field definitions in Table 1. Bi-annual, based on utilization of preventive maintenance updates. Updates shall be made in DDMS.

E. DISTRIBUTION:

Distribution shall be in accordance with the DRL.

F. APPLICABLE DOCUMENTS:

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

1. DRD Title Test Report	2. Date of current version 12/01/2011	3. DRL Line Item No. TD-11	RFP/Contract No. (Procurement completes) NNJ13HA01C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) Creates record and results of test performed.			5. DRD Category: (<i>check one</i>) <input checked="checked" type="checkbox"/> Technical <input type="checkbox"/> Administrative <input type="checkbox"/> SR&QA
6. References (<i>Optional</i>) EA-WI-024: General Operating Procedures for EA Testing Facilities		7. Interrelationships (<i>e.g., with other DRDs</i>) RV-10 Flight Product Verification and Validation Plan RV-14 Flight Product Qualification Report TD-04 Acceptance Data Package	
8. Preparation Information (<i>Include complete instructions for document preparation</i>) A. SCOPE: This report consists of test data analysis and results. B. CONTENT: Test report shall include as a minimum: 1. Customer name 2. Customer organization 3. Customer phone number 4. Task Performance Sheet number 5. Test objective 6. Test article part numbers and serial numbers 7. Test date 8. Test assessment or analysis if required 9. Test facility hardware configuration 10. Test facility software configuration (if applicable) 11. Test results C. FORMAT: The contractor's format is acceptable. The electronic data shall be delivered to the Design Data Management System (DDMS) in native format compatible with JSC standard office software loads. D. MAINTENANCE: See Data Requirements List (DRL). E. DISTRIBUTION: Distribution shall be in accordance with the DRL. F. APPLICABLE DOCUMENTS:			

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

1. DRD Title Delivery and Acceptance Report	2. Date of current version 12/01/2011	3. DRL Line Item No. TD-12	RFP/Contract No. (Procurement completes) NNJ13HA01C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) To provide a record of data delivered to non DDMS NASA systems.			5. DRD Category: (<i>check one</i>) <input checked="" type="checkbox"/> Technical <input type="checkbox"/> Administrative <input type="checkbox"/> SR&QA
6. References (<i>Optional</i>)		7. Interrelationships (<i>e.g., with other DRDs</i>)	
8. Preparation Information (<i>Include complete instructions for document preparation</i>) A. SCOPE: This document serves as a formal record reflecting the Contractor's generation and delivery of native format products within the NASA specific electronic environment (non-DDMS). The Delivery and Acceptance Report shall serve as the basis for Contractor communication with NASA documenting the contractual delivery of products required by the respective Task Order. NASA approval of the Delivery and Acceptance Report constitutes NASA acceptance of the products. B. CONTENT: The Delivery and Acceptance Report shall include as a minimum the following: 1. List of the products delivered to the NASA specific electronic environment 2. Associated Task Order number and title related to each delivered product 3. Period of time being reported within the deliverable C. FORMAT: The electronic data shall be delivered to the Design Data Management System (DDMS) in native format compatible with JSC standard office software loads. D. MAINTENANCE: See Data Requirements List (DRL). E. DISTRIBUTION: Distribution shall be in accordance with the DRL. F. APPLICABLE DOCUMENTS:			

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

1. DRD Title Government Certification Approval Request (GCAR)	2. Date of current version 12/01/2011	3. DRL Line Item No. TD-13	RFP/Contract No. (Procurement completes) NNJ13HA01C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) To establish the joint JSC and product provider agreed upon, requirements to be used for acceptance and certification of flight products.		5. DRD Category: (<i>check one</i>) <input type="checkbox"/> Technical <input type="checkbox"/> Administrative <input checked="" type="checkbox"/> SR&QA	
6. References (<i>Optional</i>)		7. Interrelationships (<i>e.g., with other DRDs</i>) TD-06 Certification Data Package TD-19 Risk Assessment Executive Summary Report (RAESR)	
8. Preparation Information (<i>Include complete instructions for document preparation</i>) A. SCOPE: The GCAR is a form that documents the certification information for a product and establishes formal approval of the successful completion of certification and acceptance. B. CONTENT: See the GCAR form JF 1296 and JF 1296A (instructions) for content. C. FORMAT: The format is defined by JF 1296. The format is available in the Design Data Management System (DDMS). The electronic data shall be delivered to the Design Data Management System (DDMS) in native format compatible with JSC standard office software loads. D. MAINTENANCE: See Data Requirements list. E. DISTRIBUTION: Distribution shall be in accordance with the DRL. F. APPLICABLE DOCUMENTS:			

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

1. DRD Title Flight Products Workmanship Specification List	2. Date of current version 12/01/2011	3. DRL Line Item No. TD-14	RFP/Contract No. (Procurement completes) NNJ13HA01C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) This document defines the list of workmanship specifications that the Contractor identifies to be used for the manufacturing of the flight, and associated ground support products.		5. DRD Category: (<i>check one</i>) <input checked="" type="checkbox"/> Technical <input type="checkbox"/> Administrative <input type="checkbox"/> SR&QA	
6. References (<i>Optional</i>) NASA Technical Standards Program, http://standards.nasa.gov		7. Interrelationships (<i>e.g., with other DRDs</i>) TD-02 Preliminary Design Review (PDR) Data Package TD-03 Flight Product Critical Design Review (CDR) Data Package	
8. Preparation Information (<i>Include complete instructions for document preparation</i>) A. SCOPE: This list contains all applicable workmanship specifications that are applied as fabrication requirements or software development requirements. This list establishes the lowest-level of requirements to be met in order to assure quality products are delivered for flight. This list of workmanship specifications shall not replace or be used in lieu of those workmanship specifications (standards) specified in Attachment J-24. B. CONTENT: This list is presented for NASA review and approval. Many workmanship specifications are identified by NASA, and if used, shall provide acceptable flight products. These may be standard industry specifications, military specifications, or NASA unique specifications. Use of alternate specifications requires review and approval for assurance that the Project requirements can be met. Alternate specifications and standards shall not include proprietary processes unless approved specifically by NASA. C. FORMAT: The format is defined by an outline or template associated with this data in the Design Data Management System (DDMS). The format may be varied to match the specific nature of the products being provided. The list shall be delivered in native format, and be compatible with Microsoft Excel. D. MAINTENANCE: See Data Requirements List (DRL). E. DISTRIBUTION: Distribution shall be in accordance with the DRL. F. APPLICABLE DOCUMENTS:			

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

1. DRD Title Electrical, Electronic, and Electromechanical (EEE) Parts List and Analysis Report	2. Date of current version 12/01/2011	3. DRL Line Item No. TD-15	RFP/Contract No. (Procurement completes) NNJ13HA01C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) Report to document the analysis used to verify that the selected electrical parts are not overstressed in worst case environments, operating conditions, and duty cycles.		5. DRD Category: (<i>check one</i>) <input checked="" type="checkbox"/> Technical <input type="checkbox"/> Administrative <input type="checkbox"/> SR&QA	
6. References (<i>Optional</i>) SSP 30312: Electrical, Electronic, and Electromechanical (EEE) and Mechanical Parts Management and Implementation Plan for the International Space Station (ISS) Program.		7. Interrelationships (<i>e.g., with other DRDs</i>) Other DRDs (see block 8)	
8. Preparation Information (<i>Include complete instructions for document preparation</i>) A. SCOPE The Contractor shall deliver an EEE parts list and all, or a part of the products required for EEE Parts Analysis. This report documents the analysis used to verify the appropriate de-rating and stress considerations of EEE parts selected to meet the full functional performance when used within a system operation under all environmental conditions, after worst case impacts of manufacturing, assembly, and handling processes. This analysis is also used for system reliability predictions and trends for operation problems. B. CONTENT: TD-02: Preliminary Design Review (PDR) Data Package TD-03: Flight Product Critical Design Review (CDR) Data Package TD-04: Acceptance Data Package (ADP) TD-06: Certification Data Package Analysis for all parts in the EEE Parts, As-Designed Parts List and the bill of materials associated with the complete product. After manufacture, the report shall be updated by including all changes identified in the EEE Parts, As-Built Parts List. This report shall include: 1. Analysis of the worst case electrical, mechanical, and high and low temperature thermal stresses by parts from purchase through manufacturing to their use in the intended application. 2. Data verifying that the analysis includes applicable de-rating requirements. 3. Electrical drawing with input/output functions (signals, sources, loads and frequencies). 4. Environmental and mechanical conditions placed on the hardware 5. Analysis to define the environmental and mechanical conditions if required, because of the placement of the hardware relative to other influencing hardware. 6. Tabulation of the worst-case stress ratios for the parameters contained in the programs parts de-rating requirements. The tabulation is referenced to designators on the drawings. It identifies the part number, parameters to be verified, device's parametric rating, parameter's worst case calculated induced stress level, specific application, and ratio of the calculated stress level to device rating for the parameter. 7. A separate section that identifies any parts that were accepted for use that did not meet the defined de-rating requirements. The rationale for acceptance of their use and the NASA approval document reference shall be recorded here. C. FORMAT: The format is defined by an outline or template associated with this data in the Design Data Management System (DDMS). The format may be varied to match the specific nature of the products being provided. The electronic data shall be delivered to the Design Data Management System (DDMS) in native format compatible with JSC standard office software loads. D. MAINTENANCE: See Data Requirements List (DRL). E. DISTRIBUTION: Distribution shall be in accordance with the DRL. F. APPLICABLE DOCUMENTS:			

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

1. DRD Title Space Station Hardware Failure Modes and Effects Analysis (FMEA) and Critical Items List (CIL)	2. Date of current version 12/01/2011	3. DRL Line Item No. TD-16	RFP/Contract No. (Procurement completes) NNJ13HA01C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) The FMEA provides for identification of failure modes, effects, and critical items to support risk assessment, additional design action, safety analysis, hardware/software interface analyses, test planning, mission planning, preparation of mandatory inspection points, fault detection and isolation, maintainability analyses and planning, maintenance planning, and logistics planning. The CIL is used to identify critical items that require special risk assessments, and waivers to Program requirements.		5. DRD Category: (<i>check one</i>) <input type="checkbox"/> Technical <input type="checkbox"/> Administrative <input checked="" type="checkbox"/> SR&QA	
6. References (<i>Optional</i>)		7. Interrelationships (<i>e.g., with other DRDs</i>) TD-03 Flight Product Critical Design Review (CDR) Data Package TD-10 Space Station Reliability and Maintainability Predictions Report TD-18 Space Station Hazard Reports TD-19 Risk Assessment Executive Summary Report	
8. Preparation Information (<i>Include complete instructions for document preparation</i>) A. SCOPE: FMEA/CILs shall be documented for flight products (including Flight Support Equipment), Ground Support Equipment (GSE), and Payloads B. CONTENT: The data provided shall, as a minimum, contain the data elements specified in SSP 30234, Appendix C for flight hardware, Appendix D for GSE, or Appendix E for Payloads. C. FORMAT: FMEA worksheets shall be delivered electronically. The format may be Microsoft Word, Microsoft Excel, or delineated American Standard Code for Information Interchange (ASCII) file compatible with JSC standard office software loads. The electronic data shall be delivered to the Design Data Management System (DDMS). D. MAINTENANCE: See Data Requirements List (DRL). E. DISTRIBUTION: Distribution shall be in accordance with the DRL. F. APPLICABLE DOCUMENTS: SSP 30234: Failure Modes and Effects Analysis and Critical Items Requirements List for Space Station SSP 50835: ISS Pressurized Volume Hardware Common Interface Requirements Document			

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

1. DRD Title Space Station Payload Safety Data Package	2. Date of current version 12/01/2011	3. DRL Line Item No. TD-17	RFP/Contract No. (Procurement completes) NNJ13HA01C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) This DRD defines the payload safety review process and data required to assist the ISS Payload Organization in documenting compliance with the payload safety requirements			5. DRD Category: (<i>check one</i>) <input type="checkbox"/> Technical <input type="checkbox"/> Administrative <input checked="" type="checkbox"/> SR&QA
6. References (<i>Optional</i>)			7. Interrelationships (<i>e.g., with other DRDs</i>) TD-03 Flight Product Critical Design Review (CDR) Data Package TD-18 Space Station Hazard Reports
8. Preparation Information (<i>Include complete instructions for document preparation</i>) A. SCOPE: This DRD is applicable to ISS Payloads. B. CONTENT: The Contractor shall submit Safety Data Packages (Phases 0-III) and other supporting documentation as required by SSP 30599 Appendix J. C. FORMAT: The format is defined by an outline or template associated with this data in the Design Data Management System (DDMS). The format may be varied to match the specific nature of the products being provided. The electronic data shall be delivered to the Design Data Management System (DDMS) in native format compatible with JSC standard office software loads. D. MAINTENANCE: See Data Requirements List (DRL). This data shall be maintained in the DDMS. E. DISTRIBUTION: Distribution shall be in accordance with the DRL. F. APPLICABLE DOCUMENTS: SSP 30599 Safety Review Process			

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

1. DRD Title Space Station Hazard Reports (HRs)	2. Date of current version 12/01/2011	3. DRL Line Item No. TD-18	RFP/Contract No. (Procurement completes) NNJ13HA01C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) HR's are used to document the safety analyses performed on a system, subsystem, or operation. The HR is the output of the hazard analyses and is used to provide program management a summary of risk in terms of cause, control, and verification.		5. DRD Category: (<i>check one</i>) <input type="checkbox"/> Technical <input type="checkbox"/> Administrative <input checked="" type="checkbox"/> SR&QA	
6. References (<i>Optional</i>)		7. Interrelationships (<i>e.g., with other DRDs</i>) TD-06 Certification Data Package TD-16 Space Station Hardware FMEA and CIL TD-19 Risk Assessment Executive Summary Report	
8. Preparation Information (<i>Include complete instructions for document preparation</i>) A. SCOPE: This requirement shall consist of flight and ground hazard reports and their supporting data. B. CONTENT: Hazard Reports shall include the documented results of the safety analysis which is performed to identify hazards and their causes. Identify specific safety requirements and non-conformances, specify control methods in the design, and identify verification activities per SSP 30599: Safety Review Process. Hazard Reports shall be submitted and reviewed using a phased approach per SSP 30599. The hazard reports will assess each flight product end item for all phases including, interfaces with all other equipment or end items. The provider shall assess on-orbit configurations changes of the flight product that may affect the safety of the Space Station and submit as applicable. A contract letter stating no impact is acceptable. The ground hazard reports assess ground operations for each flight product, support equipment interfacing with flight hardware at KSC, and the operations to process the flight product at KSC. C. FORMAT: Appendix A of this DRD contains the unique format for hazard reports. Generic hazards are documented on JSC Form (JF) 1477. The Ground Safety Checklist (JF970) addresses hazards associated with launch processing. The ground safety checklist is used to determine if development of a detailed ground hazard analysis is required. For items launched on Russian vehicles, JF 907 is used to determine the cargo category. Category 2 items require unique hazard reports. Supporting data based on the requirements stated in RSC-ENERGIA document SSP 32928-103 and JF 906 are used as supporting data for JF 907. The electronic data shall be delivered to the Design Data Management System (DDMS) in native format compatible with JSC standard office software loads. D. MAINTENANCE: See Data Requirements List (DRL). As required. Any updates shall be made in DDMS. E. DISTRIBUTION: Distribution shall be in accordance with the DRL. F. APPLICABLE DOCUMENTS: SSP 30599, Safety Review Process SSP 50021, Safety Requirements Document SSP 50835, ISS Pressurized Volume Hardware Common Interface Requirements Document KNPR 8715.3, KSC Safety Practices Procedural Requirements, Chapter 20 SSP 32928-103, Requirements for International Partner Cargo Transported on Russian Progress and Soyuz Vehicles II32928-103			

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

Appendix A Unique Hazard Report Format

TEAM NAME
International Space Station
Hazard Report Number

-
1. HAZARD TITLE:
 - a. Review Level: Phase
 - b. Revision Date:
 - c. Scope:
 2. HAZARD CONDITION DESCRIPTION:
 3. EFFECTS:
 4. CAUSE SUMMARY
 1. Title:
 2. Title:
 3. Title:
 5. PROGRAM STAGE(S):
 6. INTERFACES:
 7. STATUS OF OPEN WORK: (PHASE III ONLY)

All verifications that are not complete at the Phase III level review shall be documented in a verification matrix to be identified in "status of open work" of the hazard report.
 8. REMARKS:

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

SUBMITTAL CONCURRENCE:

GFE Safety Engineer, (NAME)

Date

Program Safety Manager

Date

JSC Project Manager

Date

APPROVAL:

Chairman, Safety and Mission Assurance
Review Team (SMART)

Phase I _____
Phase II _____
Phase III _____

Date

Integrated Hazards (ONLY)

Chairman, Safety Review Panel (SRP)

Date

Chairman, Safety Review Panel (SRP)

Date

For Phase III (ONLY)

NASA Manager, Space Station Program

Date

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

Hazard Report Number

Cause 1

1. HAZARD CAUSE DESCRIPTION:

SEVERITY:

LIKELIHOOD:

CLASSIFICATION:

2. CONTROL(S):

1. Control 1

2. Control 2

3. METHOD FOR VERIFICATION OF CONTROL(S):

1. Verification for Control 1

2. Verification for Control 2

.

.

N. Verification for Control n

4. SAFETY REQUIREMENT(S):

Document:

Paragraph:

Title:

Document:

Paragraph:

Title:

5. MISSION PHASE(S):

_____ Launch Processing

_____ Launch

_____ Rendezvous/Docking

_____ Deployment

_____ Orbital Assembly & Checkout

_____ On-Orbit Operation

_____ On-Orbit Maintenance

_____ Return/Decommissioning

6. PROGRAM STAGE(S):

7. DETECTION AND WARNING METHOD(S):

8. CAUSE REMARKS/BACKGROUND:

9. FMEA/CIL REFERENCE:

10. POINT OF CONTACT:

Name:

Telephone:

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

1. DRD Title Risk Assessment Executive Summary Report	2. Date of current version 12/01/2011	3. DRL Line Item No. TD-19	RFP/Contract No. (Procurement completes) NNJ13HA01C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) To provide management with a single report summarizing S&MA risks.		5. DRD Category: (<i>check one</i>) <input type="checkbox"/> Technical <input type="checkbox"/> Administrative <input checked="" type="checkbox"/> SR&QA	
6. References (<i>Optional</i>) EA-WI-023: Project Management of GFE Flight Projects		7. Interrelationships (<i>e.g., with other DRDs</i>) TD-06 Certification Data Package TD-08 Engineering Analysis TD-13 Government Certification and Approval Request (GCAR) TD-16 Space Station Failure Modes and Effects Analysis and Critical Items List TD-18 Space Station Hazard Reports	
8. Preparation Information (<i>Include complete instructions for document preparation</i>) A. SCOPE: The Risk Assessment Executive Summary Report (RAESR) documents the results of the risk assessment performed for flight products and operations and provides management visibility of the total risk picture. The RAESR consists of four major sections: <ol style="list-style-type: none"> 1. The system description 2. The results of the Safety Analysis including operational safety 3. The Failure Modes and Effects Analysis (FMEA) 4. The Risk Reports which include the combination of Hazard Report and Critical Items List (CIL) data. B. CONTENT: <u>Outline:</u> <ol style="list-style-type: none"> i. Cover Page ii. Signature Page iii. Table of contents <ol style="list-style-type: none"> 1.0 Introduction <ol style="list-style-type: none"> 1.1 Purpose/Scope 1.2 Background 1.3 System Description 1.4 Documentation <ol style="list-style-type: none"> 1.4.1 Safety Requirements Documents 1.4.2 Reference Documents 2.0 Safety Analysis <ol style="list-style-type: none"> 2.1 Assumptions 2.2 System Safety Analysis 2.3 Operational Safety Analysis 3.0 Failure Modes and Effects Analysis <ol style="list-style-type: none"> 3.1 Ground Rules 3.2 Failure Modes and Effects Analysis Worksheets 4.0 Risk Summary Appendix A – Risk Reports (HR/CIL combination) Appendix B – Government Certification Approval Request (GCAR), JSC Form 1296 Appendix C – Definitions C. FORMAT: The format is defined by an outline or template associated with this data in the Design Data Management System (DDMS). The format may be varied to match the specific nature of the products being provided. The electronic data shall be delivered to the Design Data Management System (DDMS) in native format compatible with JSC standard office software loads. D. MAINTENANCE: See Data Requirements List (DRL).			

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

E. DISTRIBUTION:

Distribution shall be in accordance with the DRL.

F. APPLICABLE DOCUMENTS:

SSP 30309, Safety Analysis Requirements Document

SSP 50021, Space Station Safety Requirements

SSP 30599, Safety Review Process

SSP 30234, Failure Modes and Effects Analysis and Critical Items List Requirements for Space Station

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

1. DRD Title Non-Conformance Record (NCR)	2. Date of current version 12/01/2011	3. DRL Line Item No. TD-20	RFP/Contract No. (Procurement completes) NNJ13HA01C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) To provide that all non-conformances identified at off-site facilities are appropriately identified, documented, and dispositioned in a consistent manner, and to assure that all the necessary data is included and available.			5. DRD Category: (<i>check one</i>) <input type="checkbox"/> Technical <input type="checkbox"/> Administrative <input checked="" type="checkbox"/> SR&QA
6. References (<i>Optional</i>) JPR 1281.13, Control of Non Conforming Product JPR 1281.8, Product Traceability and Identification		7. Interrelationships (<i>e.g., with other DRDs</i>) SMA-06 Problem Reporting and Corrective Action (PRACA) for the JSC/Government Furnished Equipment (GFE) and Flight Products	
8. Preparation Information (<i>Include complete instructions for document preparation</i>) A. SCOPE: At a minimum, this DRD is applicable to all items designated as or will be used in the fabrication or assembly of Class I, Class II, or Ground Support Equipment as defined in JPR 1281.8. It establishes the minimum data elements necessary to provide records of a closed loop system for the control of non-conforming products. Non-conformance reporting shall commence with the initial receipt of materials or articles for procurement, and continue through all subsequent phases of the program/project. B. CONTENT: The NCR shall contain the following data elements: <ol style="list-style-type: none"> 1. A unique and traceable number for each non-conformance 2. Identification of the nonconforming article or material <ol style="list-style-type: none"> a. Nomenclature b. Part identification number c. Serial number/Lot number/Version d. Manufacturer's name or the Manufacturer's Contractor and Government Entity (CAGE) code (preferable) 3. The date the non-conformance was discovered 4. The name of the initiator of the non-conformance record 5. A description of the non-conformance including a description of the required characteristics or specification 6. The type of activity being conducted (e.g., fabrication, assembly, qualification test, system test, pre-delivery or pre-installation test, etc.). Reference must be made to applicable procedure numbers. 7. When appropriate, identification of the next higher assembly: <ol style="list-style-type: none"> a. Nomenclature b. Part identification number c. Manufacturer's name or the Manufacturer's CAGE code (preferable) 8. Disposition of the nonconforming article or material 9. The signatures of the personnel authorized to provide disposition 10. Verification that the prescribed disposition was acceptably completed 11. When applicable, a cross-reference to an associated PRACA report. C. FORMAT: The electronic data shall be delivered to the Design Data Management System (DDMS) in native format compatible with JSC standard office software loads. Note: For on-site hardware and software processing, format shall be in accordance with the JSC Quality Management System. D. MAINTENANCE: See Data Requirements List (DRL). E. DISTRIBUTION: Distribution shall be in accordance with the DRL. F. APPLICABLE DOCUMENTS:			

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

1. DRD Title Flight Products Failure Analysis Report	2. Date of current version 12/01/2011	3. DRL Line Item No. TD-21	RFP/Contract No. (Procurement completes) NNJ13HA01C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) To provide and document the detailed data generated during the testing and analysis of defective hardware returned to the supplier.			5. DRD Category: (<i>check one</i>) <input checked="checked" type="checkbox"/> Technical <input type="checkbox"/> Administrative <input type="checkbox"/> SR&QA
6. References (<i>Optional</i>) JSC 28035: Program Problem Reporting and Corrective Action Requirements for Johnson Space Center Government Furnished Equipment		7. Interrelationships (<i>e.g., with other DRDs</i>) SMA-06 Problem Reporting and Corrective Action (PRACA) for the JSC/Government Furnished Equipment (GFE) and Flight Products	
8. Preparation Information (<i>Include complete instructions for document preparation</i>) A. SCOPE: The report documents the test and analyses conducted during an investigation of defective hardware returned to the supplier. The report identifies the root cause of the failure and records the Contractor's recommended corrective action required to prevent another occurrence of the same failure. B. CONTENT: The report shall contain the following information as a minimum: <ol style="list-style-type: none"> 1. Description of when, where, and how the hardware failed along with supporting evidence. 2. Documentation on how the hardware was transported to the vendor. 3. Documentation of how the hardware was received and processed by the vendor. 4. Documentation of tests performed, success criteria, and actual test results obtained in order to assess the failure. 5. Documentation of the analysis performed and results obtained to assess the failure. 6. Documentation on verification of the original certification data, and any discrepancies found. 7. Method used to arrive at root cause of the failure. 8. Rationale used to arrive at recommended corrective action. 9. Plan for implementation and estimated cost of corrective action. C. FORMAT: The format is defined by an outline or template associated with this data in the Design Data Management System (DDMS). The format may be varied to match the specific nature of the products being provided. The electronic data shall be delivered to the Design Data Management System (DDMS) in native format compatible with JSC standard office software loads. D. MAINTENANCE: See Data Requirements List (DRL). E. DISTRIBUTION: Distribution shall be in accordance with the DRL. F. APPLICABLE DOCUMENTS:			

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123. See work page for instructions.)

1. DRD Title Engineering Design Change Proposal	2. Date of current version 12/01/2011	3. DRL Line Item No. TD-22	RFP/Contract No. (Procurement completes) NNJ13HA01C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) Define the Contractor proposed changes to controlled NASA requirements or product configuration.			5. DRD Category: (<i>check one</i>) <input checked="" type="checkbox"/> Technical <input type="checkbox"/> Administrative <input type="checkbox"/> SR&QA
6. References (<i>Optional</i>) EA-WI-027: Configuration Management for Government Furnished Equipment		7. Interrelationships (<i>e.g., with other DRDs</i>) TD-03: Flight Product Critical Design Review (CDR) Data Package	
8. Preparation Information (<i>Include complete instructions for document preparation</i>) A. SCOPE: This DRD provides a description of the minimum information required to be submitted to NASA when a change to NASA requirements is believed by the Contractor to save money, reduce risk, increase efficiency, improve performance, or improve safety. B. CONTENT: The Engineering Design Change Proposal (EDCP) shall contain the following data as a minimum: 1. The Contractor EDCP number, date, and title 2. Description of change including technical impacts, and technical impacts if not changed 3. Justification for change 4. Effectivity of the change specified in terms of deliverable subcontract products and affected serial number or version. 5. Retrofit requirements and proposed incorporation/action when applicable. 6. Data Requirements Documents Affected 7. Estimate of cost impact 8. Impact to Schedule 9. Impacts to Safety It is acceptable for the Contractor to submit a change using the forms provided by the appropriate NASA change board. C. FORMAT: The Contractor's format shall be used unless a NASA configuration control board form is used. Changes to NASA controlled documentation shall be submitted with the current "From" text or drawing and the proposed "To" text or drawing. D. MAINTENANCE: See Data Requirements List (DRL). E. DISTRIBUTION: Distribution shall be in accordance with the DRL. F. APPLICABLE DOCUMENTS:			

JSC Engineering, Technology and Science Contract (JETS)

Award Fee Plan

Attachment J-11

Contract No.: NNJ13HA01C

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List of Acronyms

Acronym	Definition
CAP	Corrective Action Plan
CO	Contracting Officer
COTR	Contracting Officer's Technical Representative
FAR	Federal Acquisition Regulation
FDO	Fee Determination Official
JETS	JSC Engineering, Technology, and Science Contract
JSC	Johnson Space Center
NASA	National Aeronautics and Space Administration
PEB	Performance Evaluation Board
PEB-IT	Performance Evaluation Board Integration Team
R&D	Research and Development

1.0 Introduction

In accordance with the provisions of the Federal Acquisition Regulation (FAR) and the NASA /JSC policies, an Award Fee Evaluation Plan is established to evaluate contractor performance and determine the award fee to be earned and payable under this contract. The award fee evaluation process will include both objective and subjective assessments of contractor performance.

2.0 Award Fee Provisions

An award fee provision has been established to motivate the contractor to strive for excellence in managerial, technical, schedule, and cost performance. For each period, the contractor may earn award fee from a minimum of zero dollars to the maximum available award fee shown in Appendix 2, Award Fee Distribution. The contractor will be informed of any changes in evaluation factors or weightings prior to the affected award fee period.

Each award fee evaluation is considered to be final. Any unearned award is lost and cannot be moved into subsequent fee evaluation periods. An overall performance evaluation and fee determination of zero may be made for any evaluation period when there is a major breach of safety or security as defined in NFS 1852.223-75, Major Breach of Safety or Security.

The Government shall pay fee to the contractor in accordance with Clause G.2 entitled, "Award Fee for Service Contracts."

2.1 Performance Evaluation Board Integration Team (PEB-IT)

The Performance Evaluation Board Integration Team (PEB-IT) will be composed of the contract management team, including the Contracting Officer (CO) and Contracting Officer's Technical Representative (COTR). The COTR will be the focal point for the accumulation and development of award fee evaluation technical reports, reviews, and presentations. The CO will be the focal point for contractor performance evaluations relating to contract management. The PEB-IT will evaluate contractor performance using the evaluation factors listed in Section 2.5 – Evaluation Criteria of this plan.

The PEB-IT will provide the contractor interim performance evaluations every three months. The intent of these interim evaluations is to discuss specific areas where future performance improvement is necessary.

The PEB-IT will prepare a six month evaluation report for review by the PEB for each evaluation period. This report will include a recommended adjective rating and numerical score representing the contractor's performance for the period evaluated.

2.2 Performance Evaluation Board (PEB)

The PEB will be appointed by the Fee Determination Official (FDO) or his designee. A PEB, comprised of selected technical and contract management personnel of NASA, will evaluate the contractor's performance after each evaluation period to determine whether, and to what extent, the contractor's performance during the evaluation period is deserving of the payment of award fee. At the end of each evaluation period, the PEB will prepare a summary of the evaluations for

review by the FDO. This summary report will include a recommended adjective rating and numerical score representing the contractor's performance for the period evaluated.

2.3 Fee Determination Official (FDO)

The FDO, a senior NASA official, will determine the contractor's performance score in accordance with the procedures set forth below. After considering available and pertinent information and recommendations, the FDO will make a performance determination for each period in accordance with the provisions of this plan and of Clause B.4 entitled "Estimated Cost and Award Fee."

2.4 Evaluation Procedures

Award fee evaluation periods shall be six months in length. Contractor performance will be assessed at the midpoint and at the end of each evaluation period. The CO may provide contractor performance feedback to the contractor at any time during the evaluation period.

The Government may unilaterally identify areas of special emphasis and prioritize their relative importance. These areas of special emphasis will be communicated to the contractor in writing, prior to the beginning of the applicable evaluation period. The contractor may also provide recommended objective performance metrics, weightings, and specific areas of emphasis for consideration by the Government to be used for the evaluation period no later than 30 days prior to the start of each award fee evaluation period.

Objective performance metrics and specific areas of emphasis may be established by the Government and communicated to the contractor at least 15 calendar days, prior to the start of each evaluation period. The Government may unilaterally change the evaluation criteria and weightings prior to the beginning of an award fee evaluation period. Cost performance and small business performance weightings shall not be less than 25% and 10%, respectively.

The contractor shall provide a self-evaluation to the CO within five days after, the end of a performance period.

PEB findings and fee recommendations will be shared with the contractor to allow the contractor the opportunity to take exception to or accept the PEB evaluation findings. The contractor shall provide a written response to the CO within five days stating, acceptance or indicating a need for further FDO consideration. If the contractor takes exception to the PEB findings, such exception shall be stated in writing and be provided to the CO within five working days from the date that the PEB findings were provided to the contractor.

The FDO performance determination will be considered final if no contractor response is received within the five working day period stated above.

The contractor shall submit to the CO a Corrective Action Plan (CAP) for any major weaknesses noted in the PEB report or adverse objective performance metrics identified by the Government as part of the evaluation. The CAP shall be submitted within 15 working days after the final performance determination for each evaluation period. Corrective actions will be closed by concurrence from the CO and the COTR.

2.5 Evaluation Criteria

Contractor performance evaluations will be based upon objective and subjective assessments of contractor performance in the areas of technical and management, cost, and small business performance. Objective performance metrics will be developed and used together with subjective award fee evaluations to arrive at an overall recommended numerical and adjective rating for the period.

In order to earn any award fee, the contractor must receive a numerical rating higher than 49. Appendix 1, Evaluation Definitions, provides the performance level definition adjective ratings and corresponding numerical scores that will be used in performance evaluations.

Evaluation Criteria Weighting

1. Technical and Management Performance	55%
Quality of Work	
Schedule Performance	
Program Management	
Safety and Health	
Technology, Innovation, and Process Improvements	
2. External Customer Development*	10%
3. Cost (Objective Metric)	25%
4. Small Business Goals (Objective Metric)	10%

** Appendix 3 Award Fee Measurement and Criteria for External Customer Commitment provides Jacobs' proposed allocations of the evaluation criteria for External Customer Development.*

2.6 Maximum Available Award Fee Pool

The Award Fee Schedule (see Appendix 2) will reflect the total available award fee for each evaluation period. The total available award fee for each evaluation period shall consist of the sum of the period's available award fee for ordered products and services (by Task Order), including the distributed costs of section 1.

2.7 Provisional Payment of Award Fee

Pending a determination of the amount of award fee earned for periodic evaluations, a portion of the available award fee for that period will be provisionally paid to the Contractor on a monthly basis, in accordance with contract Clause G.2 entitled "Award Fee for Service Contracts."

APPENDIX 1

EVALUATION DEFINITIONS

ADJECTIVE RATING	RANGE OF POINTS	DESCRIPTION
Excellent	100 – 91	Of exceptional merit; exemplary performance in a timely, efficient, and economical manner; very minor (if any) deficiencies with no adverse effect on overall performance.
Very Good	90 – 76	Very effective performance, fully responsive to contract; contract requirements accomplished in a timely, efficient, and economical manner for the most part; only minor deficiencies.
Good	75 – 51	Effective performance; fully responsive to contract requirements; reportable deficiencies, but with little identifiable effect on overall performance.
Satisfactory	50	Meets or slightly exceeds minimum acceptable standards; adequate results; reportable deficiencies with identifiable, but not substantial, effects on overall performance.
Unsatisfactory	Less than 50	Does not meet minimum acceptable standards in one or more areas; remedial action required in one or more areas; deficiencies in one or more areas, which adversely affect overall performance. No award fee shall be paid for an unsatisfactory rating

APPENDIX 2

AWARD FEE DISTRIBUTION

Period	Dates	Max. Avail. Award Fee	Earned Award Fee
1	5/1/13 to 12/31/13	(b) (4)	
2	1/1/14 to 9/30/14		
3	10/1/14 to 3/31/15	TBD	TBD
4	4/1/15 to 9/30/15	TBD	TBD
5	10/1/15 to 3/31/16	TBD	TBD
6	4/1/16 to 9/30/16	TBD	TBD
7	10/1/16 to 3/31/17	TBD	TBD
8	4/1/17 to 9/30/17	TBD	TBD
9	10/1/17 to 3/31/18	TBD	TBD
10*	4/1/18 to 9/30/18	TBD	TBD
11*	10/1/18 to 3/31/19	TBD	TBD
12*	4/1/19 to 9/30/19	TBD	TBD
13*	10/1/19 to 3/31/20	TBD	TBD
14*	4/1/20 to 9/30/20	TBD	TBD
15*	10/1/20 to 3/31/21	TBD	TBD
16*	4/1/21 to 9/30/21	TBD	TBD
17*	10/1/21 to 3/31/22	TBD	TBD
18*	4/1/22 to 4/30/22	TBD	TBD

The maximum award fee available for each period is based upon the condition that NASA authorizes the dollar amount of work as identified in B.4 Estimated Cost and Award Fee. JETS and NASA shall confirm that the Award Fee pool is appropriate for the work authorized for the current Award Fee Period and shall adjust the Award Fee allocations as appropriate at the end of the award fee period minus thirty days before each Award Fee period end-date. JETS shall maintain a log of work authorized during the Award Fee period and shall submit that log to JSC approximately at the end of the award fee period minus thirty days prior to award fee period end-dates noted in the Award Fee Distribution.

Note: These amounts are based upon current work authorized as of February 3, 2014. It is anticipated that as additional work is added and/or deleted, then the out periods will be adjusted at or near the end of the award fee period.

* These periods are only applicable if Option 1 and 2 are exercised.

APPENDIX 3

AWARD FEE MEASUREMENT AND CRITERIA FOR EXTERNAL CUSTOMER COMMITMENTS

Award Fee Period 1:

(b) (4)

Period		Criteria
1	5/1/13 to 12/31 /13	(b) (4)

Award Fee Periods 2 – 18 Overview:

(b) (4)

Period		Strategically Aligned Opportunities Successfully Closed During the Period	Total Offsetting Revenue Booked During the Period
2	1/1/14 to 9/30/14	(b) (4)	(4)
3	10/1/14 to 3/31/15		
4	4/1/15 to 9/30/15		
5	10/1/15 to 3/31/16		
6	4/1/16 to 9/30/16		
7	10/1/16 to 3/31/17		
8	4/1/17 to 9/30/17		
9	10/1/17 to 3/31/18		
10	4/1/18 to 9/30/18		
11	10/1/18 to 3/31/19		
12	4/1/19 to 9/30/19		
13	10/1/19 to 3/31/20		
14	4/1/20 to 9/30/20		
15	10/1/20 to 3/31/21		
16	4/1/21 to 9/30/21		
17	10/1/21 to 3/31/22		
18	4/1/22 to 4/30/22		

2) Opportunities Identified:

(b) (4)

Period		Strategically-Aligned Opportunities Identified and Brought to NASA
2	1/1/14 to 9/30/14	(b) (4)
3	10/1/14 to 3/31/15	
4	4/1/15 to 9/30/15	
5	10/1/15 to 3/31/16	
6	4/1/16 to 9/30/16	
7	10/1/16 to 3/31/17	
8	4/1/17 to 9/30/17	
9	10/1/17 to 3/31/18	
10	4/1/18 to 9/30/18	
11	10/1/18 to 3/31/19	
12	4/1/19 to 9/30/19	
13	10/1/19 to 3/31/20	
14	4/1/20 to 9/30/20	
15	10/1/20 to 3/31/21	
16	4/1/21 to 9/30/21	
17	10/1/21 to 3/31/22	
18	4/1/22 to 4/30/22	

3)

(b) (4)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT D CODE		PAGE OF PAGES	
				1 2	
2. AMENDMENT/MODIFICATION NO. 000047		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO.	
6. ISSUED BY NASA/Johnson Space Center Attn: Lawrence Miller/BH2 2101 NASA Parkway Houston TX 77058-3696		CODE JSC		5. PROJECT NO. (If applicable)	
		7. ADMINISTERED BY (If other than Item 6) NASA/Johnson Space Center Attn:Lawrence Miller/BH2 281.483.3916 lawrence.l.miller@nasa.gov 2101 NASA Parkway Houston TX 77058-3696		CODE JSC	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) JACOBS 600 WILLIAM NORTHERN BLVD TULLAHOMA TN 37388-4729		(x)		9A. AMENDMENT OF SOLICITATION NO.	
				9B. DATED (SEE ITEM 11)	
		x		10A. MODIFICATION OF CONTRACT/ORDER NO. NNJ13HA01C	
				10B. DATED (SEE ITEM 13) 02/08/2013	
CODE 07486		FACILITY CODE			

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended ☐ is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended , by one of the following methods: (a) By completing items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted ; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted , such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required) See Schedule	Net Decrease:	-\$457,052.76
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13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) FAR 52.232-22 Limitation of Funds

E. IMPORTANT Contractor ☒ is not. ☐ is required to sign this document and return _____ 0 _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)
The purpose of this modification is to 1)decrease contract funding from \$201,145,246.59 to \$200,688,193.83, a decrease of \$457,052.76; and 2) update contract clause B.5, Contract Funding.
Payment Terms:
Net 30 days
FOB: Destination

Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Christian C. Gaspard	
15B. CONTRACTOR/OFFEROR _____ (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA _____ (Signature of Contracting Officer)	16C. DATE SIGNED

B.3 CONTRACT PHASE-IN (FIRM-FIXED PRICE)

The total firm fixed price of all phase-in effort for this contract is (b) (4) covering a 60-calendar day phase-in period from **March 1, 2013** through **April 30, 2013**.

(End of clause)

B.5 CONTRACT FUNDING (NFS 1852.232-81) (JUN 1990)

(a) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds clause, the total amount allotted by the Government to this contract is (b) (4). This allotment is for JSC Engineering, Technology and Science (JETS) efforts at NASA/JSC and covers the following estimated period of performance: May 1, 2013 through **August 12, 2014**.

(b) An additional amount of (b) (4) is obligated under this contract for payment of fee.

(End of clause)

TOTAL			
	Prior Funding Thru Mod 45	Current Action Mod 46	Total Funding Thru Mod 46
Cost Fee FFP	(b) (4)		
Total	\$201,145,246.59	(\$457,052.76)	\$200,688,193.83

DE-OBLIGATIONS				
PR #	PLI	ALI	WBS Element	Amount
4200512202	1	8	432938.11.01.05.01.02.02	\$ 5,000.00
4200505101	1	6	432938.11.01.05.01.02.03	\$ 11,000.00
4200515748	1	60	432938.11.01.05.01.02.03	\$ 43,074.33
4200505101	1	64	401769.06.04.01.02.04	\$ 39,942.89
4200515748	1	71	432938.11.01.05.01.02.02	\$ 180,000.00
4200512202	3	58	401769.06.06.01.02.33	\$ 13,736.93
4200505101	1	90	401769.06.03.01.02.10	\$ 39,172.23
4200494388	1	52	401769.06.03.01.02.12	\$ 6,000.00
4200508586	3	49	401769.06.03.01.02.12	\$ 567.04
4200512202	1	79	401769.06.03.01.02.12	\$ 3,910.00
4200515773	2	47	647280.04.02.10	\$ 373.92
4200515773	2	52	747797.10.02.33.10	\$ 50,000.00
4200512230	3	19	747797.10.02.33.10	\$ 17,275.42
4200508571	1	66	573754.01.01.01.40.02	\$ 47,000.00
Total				\$ (457,052.76)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT			1. CONTRACT D CODE		PAGE OF PAGES		
					12		
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
000048		See Block 16C		See Schedule			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
NASA/Johnson Space Center		JSC		NASA/Johnson Space Center		JSC	
Attn: Lawrence Miller/BH2				Attn:Lawrence Miller/BH2			
2101 NASA Parkway				281.483.3916			
Houston TX 77058-3696				lawrence.l.miller@nasa.gov			
				2101 NASA Parkway			
				Houston TX 77058-3696			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
JACOBS							
600 WILLIAM NORTHERN BLVD				9B. DATED (SEE ITEM 11)			
TULLAHOMA TN 37388-4729							
				x 10A. MODIFICATION OF CONTRACT/ORDER NO.			
				NNJ13HA01C			
				10B. DATED (SEE ITEM 13)			
CODE 07486				02/08/2013			
FAC LITY CODE							
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended. <input type="checkbox"/> is not extended.							
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended , by one of the following methods: (a) By completing items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted ; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted , such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNT NG AND APPROPRIATION DATA (If required)							
See Schedule							
Net Increase: \$9,080,779.33							
13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.							
CHECK ONE							
A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.							
B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIF ED TO REFLECT THE ADM NISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH N ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).							
C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:							
D. OTHER (Specify type of modification and authority)							
X FAR 52.232-22 Limitation of Funds							
E. IMPORTANT Contractor <input checked="" type="checkbox"/> is not. <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
The purpose of this modification is to 1)increase contract funding from \$200,688,193.83 to \$209,768,973.16, a increase of \$9,080,779.33; and 2) update contract clause B.5, Contract Funding.							
Payment Terms:							
Net 30 days							
FOB: Destination							
Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACT NG OFFICER (Type or print)			
				Christian C. Gaspard			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
(Signature of person authorized to sign)				christian.c.gaspard@nasa.gov Digitally signed by christian.c.gaspard@nasa.gov DN: cn, ch, christian.c.gaspard@nasa.gov Date: 2014.07.10 10:53:49 -0500		07/10/2014	
				(Signature of Contracting Officer)			

B.3 CONTRACT PHASE-IN (FIRM-FIXED PRICE)

The total firm fixed price of all phase-in effort for this contract is (b) (4) covering a 60-calendar day phase-in period from March 1, 2013 through April 30, 2013.

(End of clause)

B.5 CONTRACT FUNDING (NFS 1852.232-81) (JUN 1990)

(a) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds clause, the total amount allotted by the Government to this contract is \$ (b) (4). This allotment is for JSC Engineering, Technology and Science (JETS) efforts at NASA/JSC and covers the following estimated period of performance: May 1, 2013 through **September 22, 2014**.

(b) An additional amount of \$ (b) (4) is obligated under this contract for payment of fee.

(End of clause)

TOTAL			
	Prior Funding Thru Mod 47	Current Action Mod 48	Total Funding Thru Mod 48
Cost Fee FFP	(b) (4)		
Total	\$200,688,193.83	\$9,080,779.33	\$209,768,973.16

OBLIGATIONS	
PR	Amount
4200518944	\$6,393,997.63
4200519281	\$2,411,967.45
4200519320	\$274,814.25
Total	\$9,080,779.33

B.3 CONTRACT PHASE-IN (FIRM-FIXED PRICE)

The total firm fixed price of all phase-in effort for this contract is (b) (4) covering a 60-calendar day phase-in period from **March 1, 2013** through **April 30, 2013**.

(End of clause)

B.5 CONTRACT FUNDING (NFS 1852.232-81) (JUN 1990)

(a) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds clause, the total amount allotted by the Government to this contract is (b) (4). This allotment is for JSC Engineering, Technology and Science (JETS) efforts at NASA/JSC and covers the following estimated period of performance: May 1, 2013 through **September 22, 2014**.

(b) An additional amount of (b) (4) is obligated under this contract for payment of fee.

(End of clause)

TOTAL			
	Prior Funding Thru Mod 48	Current Action Mod 49	Total Funding Thru Mod 49
Cost Fee FFP	(b) (4)		
Total	\$209,768,973.16	(\$558,412.41)	\$209,210,560.75

DE-OBLIGATIONS				
PR #	PLI	ALI	WBS Element	Amount
4200500329	2	8	401769.06.06.01.02.23	\$ 2,760.00
4200500329	2	22	760231.05.08.05.10	\$ 21,000.00
4200502140	1	29	432938.11.01.05.01.02.03	\$ 12,457.68
4200505101	1	60	854319.04.02.04.01	\$ 15,000.00
4200508585	2	9	401769.06.03.03.02.06	\$ 3,000.00
4200508585	2	71	432938.11.01.05.01.02.03	\$ 8,697.00
4200508586	3	54	401769.06.06.01.02.10	\$ 51.13
4200512202	1	68	401769.06.04.01.02.04	\$ 80,451.23
4200512202	1	84	401769.06.06.01.02.10	\$ 100.00
4200512223	2	10	453797.04.01.03.06	\$ 15,000.00
4200512223	2	26	401769.06.03.01.02.10	\$ 67,073.33
4200512230	3	28	401769.06.05.02.02.27	\$ 2,006.00
4200512230	3	38	401769.06.04.02.02.27	\$ 8,897.96
4200512230	3	40	401769.06.06.01.02.31	\$ 7,815.84
4200512230	3	43	724297.40.49.05	\$ 5,432.00
4200512230	3	49	769347.05.08.23.01	\$ 1,652.88
4200515748	1	73	869021.05.05.09.51	\$ 27,600.00
4200515773	2	24	776634.04.01.01	\$ 63,976.25
4200515774	3	11	401769.06.04.02.02.26	\$ 2,859.51
4200518944	1	11	871056.06.02.01.09.10	\$ 7,743.90
4200518944	1	24	581570.02.02.02.02	\$ 63,512.00
4200518944	1	25	747797.06.13.15.99.10	\$ 18,000.00

4200518944	1	44	747797.06.13.13.01.10	\$ 11,317.36
4200518944	1	28	371544.01.06	\$ 17,500.00
4200518944	1	51	747797.06.53.99.10	\$ 25,000.00
4200518944	1	54	401769.06.03.06.02.12	\$ 9,648.00
4200519281	2	6	453797.04.01.03.06	\$ 31,126.00
4200519281	2	13	401769.06.03.01.02.12	\$ 4,180.00
4200519281	2	18	401769.06.06.01.02.10	\$ 200.00
4200498652	1	28	089929.01.06.01	\$ 24,354.34
Total				\$ (558,412.41)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT D CODE		PAGE OF PAGES 1 2	
2. AMENDMENT/MODIFICATION NO. 000050		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO. See Schedule	
6. ISSUED BY NASA/Johnson Space Center Attn: Lawrence Miller/BH2 2101 NASA Parkway Houston TX 77058-3696		CODE JSC		5. PROJECT NO. (If applicable)	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) JACOBS 600 WILLIAM NORTHERN BLVD TULLAHOMA TN 37388-4729		(x)		9A. AMENDMENT OF SOLICITATION NO.	
CODE 07486		FACILITY CODE		9B. DATED (SEE ITEM 11)	
		x		10A. MODIFICATION OF CONTRACT/ORDER NO. NNJ13HA01C	
				10B. DATED (SEE ITEM 13) 02/08/2013	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required) Net Increase: \$5,928,197.15
See Schedule

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) FAR 52.232-22 Limitation of Funds

E. IMPORTANT Contractor ☒ is not. ☐ is required to sign this document and return _____ 0 _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)
The purpose of this modification is to 1) increase contract funding from \$209,210,560.75 to \$215,138,757.90, a increase of \$5,928,197.15; and 2) update contract clause B.5, Contract Funding.
Payment Terms:
Net 30 days
FOB: Destination

Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Christian C. Gaspard	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA CHRISTIAN GASPARD (Signature of Contracting Officer)	16C. DATE SIGNED 08/08/2014

B.3 CONTRACT PHASE-IN (FIRM-FIXED PRICE)

The total firm fixed price of all phase-in effort for this contract is **\$(b) (4)** covering a 60-calendar day phase-in period from **March 1, 2013** through **April 30, 2013**.

(End of clause)

B.5 CONTRACT FUNDING (NFS 1852.232-81) (JUN 1990)

(a) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds clause, the total amount allotted by the Government to this contract is **\$(b) (4)**. This allotment is for JSC Engineering, Technology and Science (JETS) efforts at NASA/JSC and covers the following estimated period of performance: May 1, 2013 through **October 7, 2014**.

(b) An additional amount of **\$(b) (4)** is obligated under this contract for payment of fee.

(End of clause)

TOTAL			
	Prior Funding Thru	Current Action	Total Funding
	Mod 49	Mod 50	Thru Mod 50
Cost	\$(b) (4)		
Fee			
FFP			
Total	\$209,210,560.75	\$5,928,197.15	\$215,138,757.90

OBLIGATIONS	
PR	Amount
4200523282	\$2,851,976.65
4200523324	\$2,937,213.50
4200523372	\$139,007.00
Total	\$5,928,197.15

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT			1. CONTRACT D CODE		PAGE OF PAGES		
					12		
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
000051		See Block 16C		See Schedule			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
NASA/Johnson Space Center		JSC		NASA/Johnson Space Center		JSC	
Attn: Lawrence Miller/BH2				Attn:Lawrence Miller/BH2			
2101 NASA Parkway				281.483.3916			
Houston TX 77058-3696				lawrence.l.miller@nasa.gov			
				2101 NASA Parkway			
				Houston TX 77058-3696			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				9A. AMENDMENT OF SOLICITATION NO.			
JACOBS				(x)			
600 WILLIAM NORTHERN BLVD				9B. DATED (SEE ITEM 11)			
TULLAHOMA TN 37388-4729							
				10A. MODIFICATION OF CONTRACT/ORDER NO.			
				NNJ13HA01C			
				10B. DATED (SEE ITEM 13)			
CODE 07486				02/08/2013			
FAC LITY CODE							
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended. <input type="checkbox"/> is not extended.							
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended , by one of the following methods: (a) By completing items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted ; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted , such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNT NG AND APPROPRIATION DATA (If required)							
Net Increase: \$6,195,469.30							
13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.							
CHECK ONE							
A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.							
B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIF ED TO REFLECT THE ADM NISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH N ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).							
C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:							
D. OTHER (Specify type of modification and authority)							
X FAR 52.232-22, Limitation of Funds							
E. IMPORTANT Contractor <input checked="" type="checkbox"/> is not. <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
The purpose of this modification is to 1)increase contract funding from \$215,138,757.91 to \$221,334,227.21, an increase of \$6,195,469.30; and 2) update contract clause B.5, Contract Funding.							
Payment Terms:							
Net 30 days							
FOB: Destination							
Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACT NG OFFICER (Type or print)			
				Christian C. Gaspard			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
(Signature of person authorized to sign)				CHRISTIAN GASPARD		08/28/2014	
				(Signature of Contracting Officer)			

B.3 CONTRACT PHASE-IN (FIRM-FIXED PRICE)

The total firm fixed price of all phase-in effort for this contract is [REDACTED] covering a 60-calendar day phase-in period from **March 1, 2013** through **April 30, 2013**.

(End of clause)

B.5 CONTRACT FUNDING (NFS 1852.232-81) (JUN 1990)

(a) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds clause, the total amount allotted by the Government to this contract is [REDACTED] **(b) (4)**. This allotment is for JSC Engineering, Technology and Science (JETS) efforts at NASA/JSC and covers the following estimated period of performance: May 1, 2013 through **October 24, 2014**.

(b) An additional amount of [REDACTED] **(b) (4)** is obligated under this contract for payment of fee.

(End of clause)

	Prior Funding Thru	Current Action	Total Funding Thru
	Mod 50	Mod 51	Mod 51
Cost	[REDACTED] (b) (4)		
Fee			
Total	\$214,788,757.91	\$6,195,469.30	\$220,984,227.21

PR	Amount
4200527005	\$3,443,034.55
4200527006	\$646,454.55
4200527009	\$2,105,980.20
Total	\$6,195,469.30

B.3 CONTRACT PHASE-IN (FIRM-FIXED PRICE)

The total firm fixed price of all phase-in effort for this contract is **\$(b) (4)** covering a 60-calendar day phase-in period from **March 1, 2013** through **April 30, 2013**.

(End of clause)

B.5 CONTRACT FUNDING (NFS 1852.232-81) (JUN 1990)

(a) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds clause, the total amount allotted by the Government to this contract is **\$(b) (4)**. This allotment is for JSC Engineering, Technology and Science (JETS) efforts at NASA/JSC and covers the following estimated period of performance: May 1, 2013 through **October 20, 2014**.

(b) An additional amount of **\$(b) (4)** is obligated under this contract for payment of fee.

(End of clause)

TOTAL			
	Prior Funding Thru Mod 50	Current Action Mod 51	Total Funding Thru Mod 51
Cost Fee FFP	\$(b) (4)		
Total	\$221,334,227.21	(\$1,409,231.17)	\$219,924,996.04

DE-OBLIGATIONS				
PR #	PLI	ALI	WBS Element	Amount
4200496664	1	87	747797.01.02.99.10	\$9,944.40
4200498652	1	25	747797.06.13.13.01.10	\$86,000.00
4200498653	2	10	769347.05.08.23.01	\$600.00
4200500329	2	17	295670.01.06.02.08	\$652.00
4200500329	2	20	747797.06.13.13.01.10	\$34,000.00
4200502140	1	31	432938.11.01.05.01.02	\$1,700.00
4200505150	2	52	811540.03.03.05.01	\$12.35
4200505179	3	16	401769.06.06.01.02.29.02	\$3,360.00
4200505179	3	18	432938.11.01.05.01.02	\$1,016.00
4200508571	1	34	902152.01.05.01	\$10,353.00
4200508571	1	66	573754.01.01.01.40.02	\$5,437.00
4200508585	2	56	401769.06.04.02.02.28	\$19,235.00
4200508585	2	68	871056.06.04.02.02.15	\$15,000.39
4200508585	2	73	432938.11.01.05.01.02	\$1,359.00
4200508586	3	61	747797.06.13.13.01.10	\$456.24
4200512202	1	76	902152.01.05.01	\$5,000.00
4200512202	1	91	747797.06.13.13.01.10	\$892.44
4200512223	2	23	401769.06.06.01.02.08.03	\$36,298.00

4200512223	2	25	747797.06.13.13.01.10	\$70,000.00
4200512223	2	26	401769.06.03.01.02.10	\$57,623.74
4200512230	3	31	401769.06.03.07.04.06	\$7,320.88
4200512230	3	36	401769.06.04.02.02.23	\$186.00
4200515748	1	8	871056.06.02.01.09.09	\$166,140.00
4200515748	1	11	432938.11.01.05.01.02.03	\$96,195.05
4200515748	1	66	747797.06.13.13.99.10	\$50,000.00
4200515748	1	71	432938.11.01.05.01.02.02	\$15,558.37
4200515748	1	74	401769.06.06.01.02.33	\$62,391.78
4200515773	2	11	401769.06.06.01.02.04	\$134.43
4200515773	2	23	769347.05.08.13.04.01	\$11,900.00
4200515774	3	8	401769.06.04.02.02.04	\$14,281.35
4200515774	3	9	401769.06.04.02.02.08	\$29,370.00
4200515774	3	11	401769.06.04.02.02.26	\$19,471.88
4200515774	3	12	401769.06.04.02.02.27	\$3,446.93
4200515774	3	14	401769.06.06.01.02.31	\$13,017.20
4200515774	3	15	432938.11.01.05.01.02.02	\$4,883.40
4200515774	3	16	432938.11.01.05.05.02.02	\$2,137.57
4200515774	3	19	747797.02.08.25.10	\$9,944.03
4200515774	3	20	747797.02.08.26.10	\$3,325.71
4200518944	1	11	871056.06.02.01.09.10	\$41,000.00
4200518944	1	30	920121.01.06.01	\$6,000.00
4200518944	1	31	401769.06.03.01.02.16	\$18,021.47
4200518944	1	34	747797.06.13.13.99.10	\$276,456.40
4200518944	1	39	401769.06.06.01.02.29.03	\$8,096.05
4200518944	1	40	448550.01.05.01	\$29,640.00
4200518944	1	44	747797.06.13.13.01.10	\$4,452.22
4200518944	1	77	869021.05.05.09.51	\$14,872.00
4200519281	2	24	747797.06.13.13.01.10	\$1,784.88
4200519281	2	25	747797.06.13.13.99.10	\$34,187.37
4200519281	2	27	769347.05.08.23.01	\$595.00
4200519281	2	30	871056.08.05.01.01.02	\$308.77
4200523282	1	15	902152.01.05.01	\$30,547.00
4200523282	1	48	401769.06.03.09.01.06	\$12,497.00
4200523282	1	52	401769.06.04.02.02.23	\$1,847.00
4200523282	1	67	743588.01.01	\$27,315.67
4200523324	2	6	401769.06.05.01.02.13	\$8,341.41
4200523324	2	17	869021.03.05.01.01	\$250.00
4200523324	2	18	432938.09.01.05.05.03.83	\$6,500.00
4200523324	2	19	756414.04.12.02	\$2,086.31
4200523324	2	20	871056.08.05.01.01.02	\$9,743.48
4200523324	2	25	833011.02.05.2131.14	\$6,045.00
Total				\$ (1,409,231.17)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT D CODE		PAGE OF PAGES 1 2	
2. AMENDMENT/MODIFICATION NO. 000053		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO.	
6. ISSUED BY NASA/Johnson Space Center Attn: Lawrence Miller/BH2 2101 NASA Parkway Houston TX 77058-3696		CODE JSC		5. PROJECT NO. (If applicable)	
		7. ADMINISTERED BY (If other than Item 6) NASA/Johnson Space Center Attn: Lawrence Miller/BH2 281.483.3916 lawrence.l.miller@nasa.gov 2101 NASA Parkway Houston TX 77058-3696		CODE JSC	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) JACOBS 600 WILLIAM NORTHERN BLVD TULLAHOMA TN 37388-4729		(x)		9A. AMENDMENT OF SOLICITATION NO.	
				9B. DATED (SEE ITEM 11)	
		x		10A. MODIFICATION OF CONTRACT/ORDER NO. NNJ13HA01C	
				10B. DATED (SEE ITEM 13) 02/08/2013	
CODE 07486		FACILITY CODE			

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required) Net Decrease: -\$88,870.59
See Schedule

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) FAR 52.232-22, Limitation of Funds

E. IMPORTANT Contractor ☒ is not. ☐ is required to sign this document and return _____ 0 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

The purpose of this modification is to 1) decrease contract funding from \$219,924,996.04 to \$219,836,125.43, an decrease of \$88,870.59; and 2) update contract clause B.5, Contract Funding.

Payment Terms:
Net 30 days
FOB: Destination

Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Christian C. Gaspard	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA CHRISTIAN GASPARD <small>Digitally signed by CHRISTIAN GASPARD DN: c=US, o=U.S. Government, ou=NASA, ou=People 6.9.3.2.41.1020500.1001.1+signature, cn=CHRISTIAN GASPARD Date: 2014.09.15 16:16:23 -0500</small>	16C. DATE SIGNED 9/15/2014 (Signature of Contracting Officer)

B.3 CONTRACT PHASE-IN (FIRM-FIXED PRICE)

The total firm fixed price of all phase-in effort for this contract is **(b) (4)** covering a 60-calendar day phase-in period from March 1, 2013 through April 30, 2013.

(End of clause)

B.5 CONTRACT FUNDING (NFS 1852.232-81) (JUN 1990)

(a) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds clause, the total amount allotted by the Government to this contract is **(b) (4)**. This allotment is for JSC Engineering, Technology and Science (JETS) efforts at NASA/JSC and covers the following estimated period of performance: May 1, 2013 through **October 20, 2014**.

(b) An additional amount of **(b) (4)** is obligated under this contract for payment of fee.

(End of clause)

TOTAL			
	Prior Funding Thru Mod 52	Current Action Mod 53	Total Funding Thru Mod 53
Cost Fee FFP	(b) (4)		
Total	\$219,924,996.04	(\$88,870.59)	\$219,836,125.443

DE-OBLIGATIONS				
PR #	PLI	ALI	WBS Element	Amount
4200527009	3	1	747797.06.14.03.99.10	\$83,838.00
4200515748	1	66	747797.06.13.13.99.10	\$3,104.90
4200515773	2	22	769347.05.08.13.02.10	\$1,469.92
4200523324	2	15	747797.06.13.12.99.10	\$422.13
4200527005	1	3	203950.04.03.01	\$35.64
Total				\$ (88,870.59)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT D CODE		PAGE OF PAGES	
				1 2	
2. AMENDMENT/MODIFICATION NO. 000054		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO. See Schedule	
6. ISSUED BY NASA/Johnson Space Center Attn: Lawrence Miller/BH2 2101 NASA Parkway Houston TX 77058-3696		CODE JSC		5. PROJECT NO. (If applicable)	
		7. ADMINISTERED BY (If other than Item 6) NASA/Johnson Space Center Attn: Lawrence Miller/BH2 281.483.3916 lawrence.l.miller@nasa.gov 2101 NASA Parkway Houston TX 77058-3696		CODE JSC	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) JACOBS 600 WILLIAM NORTHERN BLVD TULLAHOMA TN 37388-4729		(x)		9A. AMENDMENT OF SOLICITATION NO.	
				9B. DATED (SEE ITEM 11)	
		x		10A. MODIFICATION OF CONTRACT/ORDER NO. NNJ13HA01C	
				10B. DATED (SEE ITEM 13) 02/08/2013	
CODE 07486		FACILITY CODE			

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required) Net Increase: \$1,674,927.19
See Schedule

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) FAR 52.232-22, Limitation of Funds

E. IMPORTANT Contractor ☒ is not. ☐ is required to sign this document and return _____ 0 _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

The purpose of this modification is to 1) increase contract funding from \$219,836,125.43 to \$221,511,052.62

, an increase of \$1,674,927.19; and 2) update contract clause B.5, Contract Funding.

Payment Terms:

Net 30 days

FOB: Destination

Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Christian C. Gaspard	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA CHRISTIAN GASPARD <small>Digitally signed by Christian GASPARD DN: c=US, o=US Government, ou=NSA, ou=People 63.244.102050101.1, email=C. GASPARD Date: 2014.09.15 17:20:08 -0500</small>	16C. DATE SIGNED 9/15/2014 (Signature of Contracting Officer)

B.3 CONTRACT PHASE-IN (FIRM-FIXED PRICE)

The total firm fixed price of all phase-in effort for this contract is **\$(b) (4)** covering a 60-calendar day phase-in period from **March 1, 2013** through **April 30, 2013**.

(End of clause)

B.5 CONTRACT FUNDING (NFS 1852.232-81) (JUN 1990)

(a) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds clause, the total amount allotted by the Government to this contract is **\$(b) (4)**. This allotment is for JSC Engineering, Technology and Science (JETS) efforts at NASA/JSC and covers the following estimated period of performance: May 1, 2013 through **October 29, 2014**.

(b) An additional amount of **\$(b) (4)** is obligated under this contract for payment of fee.

(End of clause)

TOTAL			
	Prior Funding Thru Mod 53	Current Action Mod 54	Total Funding Thru Mod 54
Cost Fee FFP	(b) (4)		
Total	\$219,836,125.43	\$1,674,927.19	\$221,511,052.62

OBLIGATIONS	
PR	Amount
4200528909	\$942,863.95
4200528954	\$506,642.76
4200529031	\$225,420.48
Total	\$1,674,927.19

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT			1. CONTRACT D CODE		PAGE OF PAGES 1 2		
2. AMENDMENT/MODIFICATION NO. 000055		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO. See Schedule		5. PROJECT NO. (If applicable)	
6. ISSUED BY NASA/Johnson Space Center Attn: Lawrence Miller/BH2 2101 NASA Parkway Houston TX 77058-3696		CODE JSC		7. ADMINISTERED BY (If other than Item 6) NASA/Johnson Space Center Attn:Lawrence Miller/BH2 281.483.3916 lawrence.l.miller@nasa.gov 2101 NASA Parkway Houston TX 77058-3696		CODE JSC	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) JACOBS 600 WILLIAM NORTHERN BLVD TULLAHOMA TN 37388-4729				(x)			9A. AMENDMENT OF SOLICITATION NO.
							9B. DATED (SEE ITEM 11)
				x			10A. MODIFICATION OF CONTRACT/ORDER NO. NNJ13HA01C
							10B. DATED (SEE ITEM 13) 02/08/2013
CODE 07486		FACILITY CODE					

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)
See Schedule Net Increase: \$8,519,478.61

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) FAR 52.232-22, Limitation of Funds

E. IMPORTANT Contractor ☒ is not. ☐ is required to sign this document and return _____ 0 _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)
The purpose of this modification is to 1) increase contract funding from \$221,511,052.64 to \$230,030,531.25, an increase of \$8,519,478.61; and 2) update contract clause B.5, Contract Funding.
Payment Terms:
Net 30 days
FOB: Destination

Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Christian C. Gaspard	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA christian.c.gaspard@nasa.gov Digitally signed by christian c. gaspard@nasa.gov DN: cn=christian c. gaspard@nasa.gov Date: 2014.09.29 08:51:06 -05'00'	16C. DATE SIGNED 9/29/2014 (Signature of Contracting Officer)

B.3 CONTRACT PHASE-IN (FIRM-FIXED PRICE)

The total firm fixed price of all phase-in effort for this contract is \$(b) (4) covering a 60-calendar day phase-in period from March 1, 2013 through April 30, 2013.

(End of clause)

B.5 CONTRACT FUNDING (NFS 1852.232-81) (JUN 1990)

(a) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds clause, the total amount allotted by the Government to this contract is \$(b) (4). This allotment is for JSC Engineering, Technology and Science (JETS) efforts at NASA/JSC and covers the following estimated period of performance: May 1, 2013 through **November 19, 2014**.

(b) An additional amount of \$(b) (4) is obligated under this contract for payment of fee.

(End of clause)

TOTAL			
	Prior Funding Thru Mod 54	Current Action Mod 55	Total Funding Thru Mod 55
Cost Fee FFP	(b) (4)		
Total	\$221,511,052.64	\$8,519,478.61	\$230,030,531.25

OBLIGATIONS	
PR	Amount
4200530115	\$5,916,020.01
4200530142	\$2,603,458.60
Total	\$8,519,478.61

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE		PAGE OF PAGES 1 12	
2. AMENDMENT/MODIFICATION NO. 000056		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO.	
5. PROJECT NO. (If applicable)		6. ISSUED BY NASA/Johnson Space Center Attn: Lawrence Miller/BH2 2101 NASA Parkway Houston TX 77058-3696		7. ADMINISTERED BY (If other than Item 6) NASA/Johnson Space Center Attn: Lawrence Miller/BH2 281.483.3916 lawrence.l.miller@nasa.gov 2101 NASA Parkway Houston TX 77058-3696	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) JACOBS 600 WILLIAM NORTHERN BLVD TULLAHOMA TN 37388-4729		9A. AMENDMENT OF SOLICITATION NO. (x)		9B. DATED (SEE ITEM 11)	
CODE 07486		FACILITY CODE		10A. MODIFICATION OF CONTRACT/ORDER NO. NNJ13HA01C	
				10B. DATED (SEE ITEM 13) 02/08/2013	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended, ☐ is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

See Schedule

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
X	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: Mutual Agreement of Both Parties
	D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor ☐ is not, ☒ is required to sign this document and return 1 copies to the issuing office.


14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible)

The purpose of this modification is to update Attachment J-11.
The attached document will replace Attachment J-11 in its entirety.

Payment Terms:

Net 30 days

Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print) Lon F. Miller / Sr. Vice President & General Manager		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Christian C. Gaspard	
15B. CONTRACTOR/OFFEROR  (Signature of person authorized to sign)	15C. DATE SIGNED 10/16/14	16B. UNITED STATES OF AMERICA christian.c.gaspard@nasa.gov Digitally signed by christian c gaspard@nasa.gov DN: cn=christian c gaspard@nasa.gov Date: 2014.10.17 09:06:52 -0500 (Signature of Contracting Officer)	16C. DATE SIGNED 10/17/2014

NSN 7540-01-152-8070
Previous edition unusable

STANDARD FORM 30 (REV. 10-83)
Prescribed by GSA
FAR (48 CFR) 53.243

**JSC Engineering, Technology and Science Contract
(JETS)**

Award Fee Plan

Attachment J-11

Contract No.: NNJ13HA01C

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List of Acronyms

Acronym	Definition
CAP	Corrective Action Plan
CO	Contracting Officer
COTR	Contracting Officer's Technical Representative
FAR	Federal Acquisition Regulation
FDO	Fee Determination Official
JETS	JSC Engineering, Technology, and Science Contract
JSC	Johnson Space Center
NASA	National Aeronautics and Space Administration
PEB	Performance Evaluation Board
PEB-IT	Performance Evaluation Board Integration Team
R&D	Research and Development

1.0 Introduction

In accordance with the provisions of the Federal Acquisition Regulation (FAR) and the NASA/JSC policies, an Award Fee Evaluation Plan is established to evaluate contractor performance and determine the award fee to be earned and payable under this contract. The award fee evaluation process will include both objective and subjective assessments of contractor performance.

2.0 Award Fee Provisions

An award fee provision has been established to motivate the contractor to strive for excellence in managerial, technical, schedule, and cost performance. For each period, the contractor may earn award fee from a minimum of zero dollars to the maximum available award fee shown in Appendix 2, Award Fee Distribution. The contractor will be informed of any changes in evaluation factors or weightings prior to the affected award fee period.

Each award fee evaluation is considered to be final. Any unearned award is lost and cannot be moved into subsequent fee evaluation periods. An overall performance evaluation and fee determination of zero may be made for any evaluation period when there is a major breach of safety or security as defined in NFS 1852.223-75, Major Breach of Safety or Security.

The Government shall pay fee to the contractor in accordance with Clause G.2 entitled, "Award Fee for Service Contracts."

2.1 Performance Evaluation Board Integration Team (PEB-IT)

The Performance Evaluation Board Integration Team (PEB-IT) will be composed of the contract management team, including the Contracting Officer (CO) and Contracting Officer's Technical Representative (COTR). The COTR will be the focal point for the accumulation and development of award fee evaluation technical reports, reviews, and presentations. The CO will be the focal point for contractor performance evaluations relating to contract management. The PEB-IT will evaluate contractor performance using the evaluation factors listed in Section 2.5 – Evaluation Criteria of this plan.

The PEB-IT will provide the contractor interim performance evaluations every six months. The intent of these interim evaluations is to discuss specific areas where future performance improvement is necessary.

The PEB-IT will prepare a twelve month evaluation report for review by the PEB for each evaluation period. This report will include a recommended adjective rating and numerical score representing the contractor's performance for the period evaluated.

2.2 Performance Evaluation Board (PEB)

The PEB will be appointed by the Fee Determination Official (FDO) or his designee. A PEB, comprised of selected technical and contract management personnel of NASA, will evaluate the contractor's performance after each evaluation period to determine whether, and to what extent, the contractor's performance during the evaluation period is deserving of the payment of award fee. At the end of each evaluation period, the PEB will prepare a summary of the evaluations for

review by the FDO. This summary report will include a recommended adjective rating and numerical score representing the contractor's performance for the period evaluated.

2.3 Fee Determination Official (FDO)

The FDO, a senior NASA official, will determine the contractor's performance score in accordance with the procedures set forth below. After considering available and pertinent information and recommendations, the FDO will make a performance determination for each period in accordance with the provisions of this plan and of Clause B.4 entitled "Estimated Cost and Award Fee."

2.4 Evaluation Procedures

Award fee evaluation periods shall be twelve months in length. Contractor performance will be assessed at the midpoint and at the end of each evaluation period. The CO may provide contractor performance feedback to the contractor at any time during the evaluation period.

The Government may unilaterally identify areas of special emphasis and prioritize their relative importance. These areas of special emphasis will be communicated to the contractor in writing, prior to the beginning of the applicable evaluation period. The contractor may also provide recommended objective performance metrics, weightings, and specific areas of emphasis for consideration by the Government to be used for the evaluation period no later than 30 days prior to the start of each award fee evaluation period.

Objective performance metrics and specific areas of emphasis may be established by the Government and communicated to the contractor at least 15 calendar days, prior to the start of each evaluation period. The Government may unilaterally change the evaluation criteria and weightings prior to the beginning of an award fee evaluation period. Cost performance and small business performance weightings shall not be less than 25% and 10%, respectively.

The contractor shall provide a self-evaluation to the CO within five days after the end of a performance period.

PEB findings and fee recommendations will be shared with the contractor to allow the contractor the opportunity to take exception to or accept the PEB evaluation findings. The contractor shall provide a written response to the CO within five days stating, acceptance or indicating a need for further FDO consideration. If the contractor takes exception to the PEB findings, such exception shall be stated in writing and be provided to the CO within five working days from the date that the PEB findings were provided to the contractor.

The FDO performance determination will be considered final if no contractor response is received within the five working day period stated above.

The contractor shall submit to the CO a Corrective Action Plan (CAP) for any major weaknesses noted in the PEB report or adverse objective performance metrics identified by the Government as part of the evaluation. The CAP shall be submitted within 15 working days after the final performance determination for each evaluation period. Corrective actions will be closed by concurrence from the CO and the COTR.

2.5 Evaluation Criteria

Contractor performance evaluations will be based upon objective and subjective assessments of contractor performance in the areas of technical and management, cost, and small business performance. Objective performance metrics will be developed and used together with subjective award fee evaluations to arrive at an overall recommended numerical and adjective rating for the period.

In order to earn any award fee, the contractor must receive a numerical rating higher than 49. Appendix 1, Evaluation Definitions, provides the performance level definition adjective ratings and corresponding numerical scores that will be used in performance evaluations.

Evaluation Criteria Weighting

1. Technical and Management Performance	55%
Quality of Work	
Schedule Performance	
Program Management	
Safety and Health	
Technology, Innovation, and Process Improvements	
2. External Customer Development*	10%
3. Cost (Objective Metric)	25%
4. Small Business Goals (Objective Metric)	10%

** Appendix 3 Award Fee Measurement and Criteria for External Customer Commitment provides Jacobs' proposed allocations of the evaluation criteria for External Customer Development.*

2.6 Maximum Available Award Fee Pool

The Award Fee Schedule (see Appendix 2) will reflect the total available award fee for each evaluation period. The total available award fee for each evaluation period shall consist of the sum of the period's available award fee for ordered products and services (by Task Order), including the distributed costs of section 1.

2.7 Provisional Payment of Award Fee

Pending a determination of the amount of award fee earned for periodic evaluations, a portion of the available award fee for that period will be provisionally paid to the Contractor on a monthly basis, in accordance with contract Clause G.2 entitled "Award Fee for Service Contracts."

APPENDIX 1

EVALUATION DEFINITIONS

ADJECTIVE RATING	RANGE OF POINTS	DESCRIPTION
Excellent	100 – 91	Of exceptional merit; exemplary performance in a timely, efficient, and economical manner; very minor (if any) deficiencies with no adverse effect on overall performance.
Very Good	90 – 76	Very effective performance, fully responsive to contract; contract requirements accomplished in a timely, efficient, and economical manner for the most part; only minor deficiencies.
Good	75 – 51	Effective performance; fully responsive to contract requirements; reportable deficiencies, but with little identifiable effect on overall performance.
Satisfactory	50	Meets or slightly exceeds minimum acceptable standards; adequate results; reportable deficiencies with identifiable, but not substantial, effects on overall performance.
Unsatisfactory	Less than 50	Does not meet minimum acceptable standards in one or more areas; remedial action required in one or more areas; deficiencies in one or more areas, which adversely affect overall performance. No award fee shall be paid for an unsatisfactory rating

APPENDIX 2

AWARD FEE DISTRIBUTION

Period	Dates	Max. Avail. Award Fee	Earned Award Fee
1	5/1/13 to 12/31/13	(b) (4)	(b) (4)
2	1/1/14 to 9/30/14		TBD
3	10/1/14 to 9/30/15		TBD
4	10/1/15 to 9/30/16	TBD	TBD
5	10/1/16 to 9/30/17	TBD	TBD
6	10/1/17 to 9/30/18	TBD	TBD
7*	10/1/18 to 9/30/19	TBD	TBD
8*	10/1/19 to 9/30/20	TBD	TBD
9*	10/1/20 to 9/30/21	TBD	TBD
10*	10/1/21 to 4/30/22	TBD	TBD

The maximum award fee available for each period is based upon the condition that NASA authorizes the dollar amount of work as identified in B.4 Estimated Cost and Award Fee. JETS and NASA shall confirm that the Award Fee pool is appropriate for the work authorized for the current Award Fee Period and shall adjust the Award Fee allocations as appropriate at the end of the award fee period minus thirty days before each Award Fee period end-date. JETS shall maintain a log of work authorized during the Award Fee period and shall submit that log to JSC approximately at the end of the award fee period minus thirty days prior to award fee period end-dates noted in the Award Fee Distribution.

Note: These amounts are based upon current work authorized as of February 3, 2014. It is anticipated that as additional work is added and/or deleted, then the out periods will be adjusted at or near the end of the award fee period.

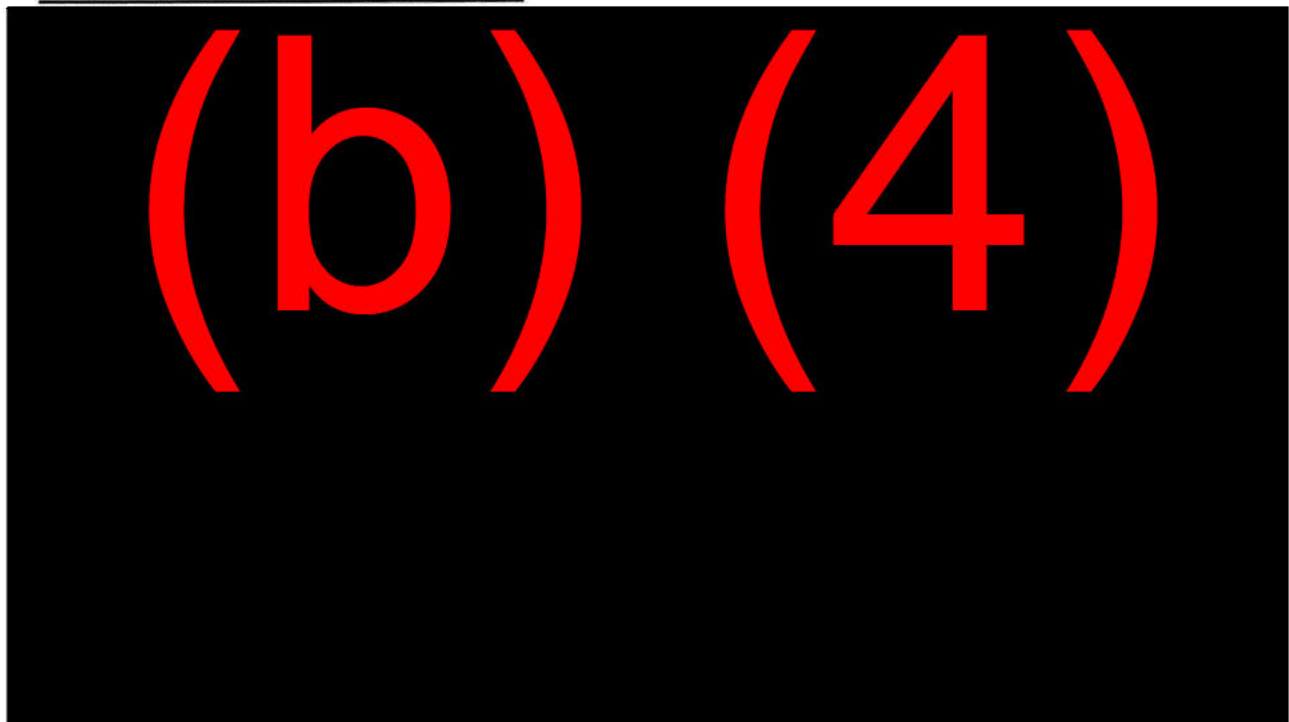
* These periods are only applicable if Option 1 and 2 are exercised.

APPENDIX 3

AWARD FEE MEASUREMENT AND CRITERIA FOR EXTERNAL CUSTOMER COMMITMENTS

(b) (4)

Award Fee Periods 2 – 18 Overview:



Period		Strategically Aligned Opportunities Successfully Closed During the Period	Total Offsetting Revenue Booked During the Period
2	1/1/14 to 9/30/14	(b)(4)	
3	10/1/14 to 9/30/15		
4	10/1/15 to 9/30/16		
5	10/1/16 to 9/30/17		
6	10/1/17 to 9/30/18		
7	10/1/18 to 9/30/19		
8	10/1/19 to 9/30/20		
9	10/1/20 to 9/30/21		
10	10/1/21 to 4/30/22		

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(b) (4)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE		PAGE OF PAGES 1 20	
2. AMENDMENT/MODIFICATION NO. 000057		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO.	
6. ISSUED BY NASA/Johnson Space Center Attn: Lawrence Miller/BH2 2101 NASA Parkway Houston TX 77058-3696		CODE JSC		7. ADMINISTERED BY (If other than Item 6) NASA/Johnson Space Center Attn: Lawrence Miller/BH2 281.483.3916 lawrence.l.miller@nasa.gov 2101 NASA Parkway Houston TX 77058-3696	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) JACOBS 600 WILLIAM NORTHERN BLVD TULLAHOMA TN 37388-4729		(x)		9A. AMENDMENT OF SOLICITATION NO.	
				9B. DATED (SEE ITEM 11)	
		x		10A. MODIFICATION OF CONTRACT/ORDER NO. NNJ13HA01C	
				10B. DATED (SEE ITEM 13) 02/08/2013	
CODE 07486		FACILITY CODE			

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

See Schedule

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
X	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: Mutual Agreement of Both Parties
	D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor ☐ is not. ☒ is required to sign this document and return 1 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

The purpose of this modification is to update Section G.4 SUBMISSION OF VOUCHERS FOR PAYMENT.

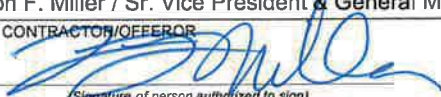
All changes are bar marked throughout the attached document.

All other terms and conditions remain unchanged.

Payment Terms:

Net 30 days

Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print) Lon F. Miller / Sr. Vice President & General Manager		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Caroline M. Root	
15B. CONTRACTOR/OFFEROR  (Signature of person authorized to sign)	15C. DATE SIGNED 10/27/14	16B. UNITED STATES OF AMERICA (Signature of Contracting Officer)	16C. DATE SIGNED 10/28/14

SECTION G – CONTRACT ADMINISTRATION DATA

G.1 LISTING OF CLAUSES INCORPORATED BY REFERENCE

Clause(s) at the beginning of this Section are incorporated by reference, with the same force and effect as if they were given in full text. Clauses incorporated by reference which require a fill-in by the Government include the text of the affected paragraph(s) only. This does not limit the clause to the affected paragraph(s). The Contractor is responsible for understanding and complying with the entire clause.

The following contract clauses pertinent to this section are hereby incorporated by reference:

I. FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1)

<u>CLAUSE NUMBER</u>	<u>DATE</u>	<u>TITLE</u>
---------------------------------	--------------------	---------------------

NONE

II. NASA FAR SUPPLEMENT (48 CFR CHAPTER 18) PROVISIONS

<u>CLAUSE NUMBER</u>	<u>DATE</u>	<u>TITLE</u>
1852.223-71	DEC 1988	FREQUENCY AUTHORIZATION
1852.227-70	MAY 2002	NEW TECHNOLOGY
1852.227-71	APR 1984	REQUESTS FOR WAIVER OF RIGHTS TO INVENTIONS
1852.227-86	DEC 1987	COMMERCIAL COMPUTER SOFTWARE - LICENSING
1852.242-71	DEC 1988	TRAVEL OUTSIDE OF THE UNITED STATES
1852.242-73	NOV 2004	NASA CONTRACTOR FINANCIAL MANAGEMENT REPORTING

(End of Clauses Incorporated by Reference)

G.2 AWARD FEE FOR SERVICE CONTRACTS (NFS 1852.216-76) (APR 2012)
(Applicable to cost-reimbursement only)

(a) The contractor can earn award fee from a minimum of zero dollars to the maximum stated in NASA FAR Supplement clause 1852.216-85, "Estimated Cost and Award Fee" in this contract.

(b) Beginning 6* months after the effective date of this contract, the Government shall evaluate the Contractor's performance every 6* months to determine the amount of award fee earned by the contractor during the period. The Contractor may submit a self-evaluation of performance for each evaluation period under consideration. These self-evaluations will be considered by the Government in its evaluation. The Government's Fee Determination Official (FDO) will determine the award fee amounts based on the Contractor's performance in accordance with [identify performance evaluation plan]. The plan may be revised unilaterally by the Government prior to the beginning of any rating period to redirect emphasis.

(c) The Government will advise the Contractor in writing of the evaluation results. The NASA Shared Services Center (NSSC) will make payment based on issuance of unilateral modification by Contracting Officer.

(d) The Contracting Officer may direct the withholding of earned award fee payments until a reserve is set aside in an amount that the Contracting Officer considers necessary to protect the Government's interest relative to an orderly and timely closeout of the contract. This reserve shall not exceed 15 percent of the contract's total potential award fee or \$100,000, whichever is less.

(e) The amount of award fee which can be awarded in each evaluation period is limited to the amounts set forth at Section J-11 Award Fee Plan. Award fee which is not earned in an evaluation period cannot be reallocated to future evaluation periods.

(f) (1) Provisional award fee payments will be made under this contract pending the determination of the amount of fee earned for an evaluation period. If applicable, provisional award fee payments will be made to the Contractor on a monthly payments basis. The total amount of award fee available in an evaluation period that will be provisionally paid is the lesser of 80 percent or the prior period's evaluation score.

(2) Provisional award fee payments will be superseded by the final award fee evaluation for that period. If provisional payments exceed the final evaluation score, the Contractor will either credit the next payment voucher for the amount of such overpayment or refund the difference to the Government, as directed by the Contracting Officer.

(3) If the Contracting Officer determines that the Contractor will not achieve a level of performance commensurate with the provisional rate, payment of provisional award fee will be discontinued or reduced in such amounts as the Contracting Officer deems appropriate. The Contracting Officer will notify the Contractor in writing if it is determined that such discontinuance or reduction is appropriate.

(4) Provisional award fee payments will be made prior to the first award fee determination by the Government.

(g) Award fee determinations are unilateral decisions made solely at the discretion of the Government.

(End of clause)

G.3 SUBMISSION OF INVOICES

Invoices for work associated with phase-in shall be submitted to:

NASA Lyndon B. Johnson Space Center
Attn: Mail Code BH, JETS Contracting Officer
2101 NASA Parkway
Houston, TX 77058-3696

(End of clause)

G.4 SUBMISSION OF VOUCHERS FOR PAYMENT (MAY 2014) (JSC 52.216-92)(NFS 1852.216-87) (MAR 1998)

(a) Except for classified vouchers, the Contractor shall submit interim and final cost vouchers electronically using the Department of Defense (DoD) Wide Area Work Flow (WAWF) system. Vouchers will be reviewed by the Defense Contract Audit Agency based upon a risk-based review process.

(1) To access the DoD WAWF system, the Contractor shall be required to have a designated electronic business point of contact in the System for Award Management at <https://www.acquisition.gov> and be registered to use the DoD WAWF at <https://wawf.eb.mil> following the step-by-step procedures for self-registration available at this web site.

(2) NASA voucher payment information can be obtained at the NASA Shared Services Center (NSSC) Vendor Payment information web site at: <https://www.nssc.nasa.gov/vendorpayment> For technical WAWF help, contact the WAWF helpdesk at 1-866-618-5988. For additional questions, contact the NSSC Customer Contact Center at 1-877-677-2123.

(3) The Contractor shall ensure that the payment request includes appropriate contract line item descriptions of the work performed or supplies delivered, unit price/cost per unit, fee (if applicable), and all required back-up documentation to support each payment request.

(b) Vouchers for payment of fee resulting from contract performance or provisional fee (if authorized under this contract) shall be prepared using a Standard Form (SF) 1034 and submitted electronically to the following address for payment:

E-mail address: NSSC-AccountsPayable@nasa.gov

Mailing address: NSSC - FMD Accounts Payable
Bldg. 1111, C Road
Stennis Space Center, MS 39529

Fax Number: 1-866-209-5415

(c) For both cost and fee voucher submissions, a concurrent copy of the voucher shall be provided electronically to the NASA Contracting Officer outside of WAWF. The Contracting Officer may designate other recipients as required.

(d) The NSSC is the designated billing office for cost and fee vouchers for purpose of the Prompt Payment clause of this contract.

(e) In the event that amounts are withheld from payment in accordance with terms of this contract, a separate voucher for the amount withheld will be required before payment for that amount may be made.~~(a) The designated billing office for cost vouchers for purposes of the Prompt Payment clause of this contract is indicated below. Public vouchers for payment of costs shall include a reference to the number of this contract.~~

~~(b)~~

~~(1) If the contractor is authorized to submit interim cost vouchers directly to the NASA paying office, they shall be prepared in accordance with paragraph (c) of this clause and submitted to:~~

~~NASA Shared Services Center (NSSC)
Financial Management Division (FMD)
Accounts Payable
Bldg. 1111, C Road
Stennis Space Center, MS 39529-6000
Email: nsse-accountspayable@nasa.gov
Fax: 866-779-6772 Phone: 877-677-2123~~

Electronic submission of invoices to the NSSC via email is preferred.

~~(2) For any period that the Defense Contract Audit Agency (DCAA) has authorized the Contractor to submit interim vouchers directly to the Government paying office, interim vouchers are not required to be sent to the Auditor, and are considered to be provisionally approved for payment, subject to final audit.~~

~~(3) Copies of vouchers should be submitted as directed by the Contracting Officer.~~

~~(c) If the contractor is not authorized to submit interim cost vouchers directly to the paying office as described in paragraph (b), the contractor shall prepare and submit vouchers as follows:~~

~~(1) One original Standard Form (SF) 1034, SF 1035, or equivalent Contractor's attachment to:~~

~~(Cognizant DCAA Mailing Office)
Houston Branch Office~~

~~Debra Russell, Auditor
12650 N. Featherwood Drive, Suite 250 Houston, TX 77034 Phone: (281)464-1800
E-mail: Debra.Russell@dcaa.mil~~

~~(2) Five copies of SF 1034A, SF 1035A, or equivalent Contractor's attachment to the following offices by insertion in the memorandum block of their names and addresses:~~

- ~~(i) Copy 1—NASA BH, JETS Contracting Officer~~
- ~~(ii) Copy 2—DCAA Auditor~~
- ~~(iii) Copy 3—Contractor~~
- ~~(iv) Copy 4—Contract Administration Office, if delegated~~
- ~~(v) Copy 5—Project Manager~~

~~(3) The Contracting Officer may designate other recipients as required.~~

~~(d) Public vouchers for payment of fee shall be prepared similarly to the procedure in paragraph (c) of this clause, and be forwarded to:~~

~~NASA Shared Services Center (NSSC)
Financial Management Division (FMD)
Accounts Payable
Bldg. 1111, C Road
Stennis Space Center, MS 39529-6000~~

~~This is the designated billing office for fee vouchers for purposes of the Prompt Payment clause of this contract.~~

~~(e) In the event that amounts are withheld from payment in accordance with provisions of this contract, a separate voucher for the amount withheld will be required before payment for that amount may be made.~~

(End of Clause)

G.5 DESIGNATION OF NEW TECHNOLOGY REPRESENTATIVE AND PATENT REPRESENTATIVE (NFS 1852.227-72) (JUL 1997)

(a) For purposes of administration of the clause of this contract entitled "New Technology" or "Patent Rights - Retention by the Contractor (Short Form)," whichever is included, the following named representatives are hereby designated by the Contracting Officer to administer such clause:

NEW TECHNOLOGY:
NASA Johnson Space Center

PATENT REPRESENTATIVE:
NASA Johnson Space Center

AD2/Technology Transfer
2101 NASA Parkway
Houston, TX 77058-3696

AL/Patent Representative
2101 NASA Parkway
Houston, TX 77058-3696

(b) Reports of reportable items, and disclosure of subject inventions, interim reports, final reports, utilization reports, and other reports required by the clause, as well as any correspondence with respect to such matters, should be directed to the New Technology Representative unless transmitted in response to correspondence or request from the Patent Representative. Inquires or requests regarding disposition of rights, election of rights, or related matters should be directed to the Patent Representative. This clause shall be included in any subcontract hereunder requiring a "New Technology" clause or "Patent Rights - Retention by the Contractor (Short Form)" clause, unless otherwise authorized or directed by the Contracting Officer. The respective responsibilities and authorities of the above-named representatives are set forth in 1827.305-370 of the NASA FAR Supplement.

(End of clause)

G.6 TECHNICAL DIRECTION (NFS 1852.242-70) (SEP 1993)

(a) Performance of the work under this contract is subject to the written technical direction of the Contracting Officer Technical Representative (COTR), who shall be specifically appointed by the Contracting Officer in writing in accordance with NASA FAR Supplement 1842.270. "Technical direction" means a directive to the Contractor that approves approaches, solutions, designs, or refinements; fills in details or otherwise completes the general description of work or documentation items; shifts emphasis among work areas or tasks; or furnishes similar instruction to the Contractor. Technical direction includes requiring studies and pursuit of certain lines of inquiry regarding matters within the general tasks and requirements in Section C of this contract.

(b) The COTR does not have the authority to, and shall not, issue any instruction purporting to be technical direction that -

- (1) Constitutes an assignment of additional work outside the statement of work;
- (2) Constitutes a change as defined in the changes clause;
- (3) Constitutes a basis for any increase or decrease in the total estimated contract cost, the fixed fee (if any), or the time required for contract performance;
- (4) Changes any of the expressed terms, conditions, or specifications of the contract;
or
- (5) Interferes with the contractor's rights to perform the terms and conditions of the contract.

(c) All technical direction shall be issued in writing by the COTR.

(d) The Contractor shall proceed promptly with the performance of technical direction duly issued by the COTR in the manner prescribed by this clause and within the COTR's authority. If, in the Contractor's opinion, any instruction or direction by the COTR falls within any of the categories defined in paragraph (b) of this clause, the Contractor shall not proceed but shall notify the Contracting Officer in writing within **5 working days** after receiving it and shall request the Contracting Officer to take action as described in this clause. Upon receiving this notification, the Contracting Officer shall either issue an appropriate contract modification within a reasonable time or advise the Contractor in writing within **30 calendar days** that the instruction or direction is -

(1) Rescinded in its entirety; or

(2) Within the requirements of the contract and does not constitute a change under the changes clause of the contract, and that the Contractor should proceed promptly with its performance.

(e) A failure of the contractor and contracting officer to agree that the instruction or direction is both within the requirements of the contract and does not constitute a change under the changes clause, or a failure to agree upon the contract action to be taken with respect to the instruction or direction, shall be subject to the Disputes clause of this contract.

(f) Any action(s) taken by the contractor in response to any direction given by any person other than the Contracting Officer or the COTR shall be at the Contractor's risk.

(End of clause)

G.7 CONTRACTOR REQUESTS FOR GOVERNMENT-PROVIDED EQUIPMENT (DEVIATION) (NFS 1852.245-70) (JAN 2011); (ALTERNATE 1) (JAN 2011 (DEVIATION)

(a) The Contractor shall provide all property required for the performance of this contract. The Contractor shall not acquire or construct items of property to which the Government will have title under the provisions of this contract without the Contracting Officer's written authorization. Property which will be acquired as a deliverable end item as material or as a component for incorporation into a deliverable end item is exempt from this requirement. Property approved as part of the contract award or specifically required within the statement of work is exempt from this requirement.

(b)

(1) In the event the Contractor is unable to provide the property necessary for performance, and the Contractor requests provision of property by the Government, the

Contractor's request shall—

- (i) Justify the need for the property;
 - (ii) Provide the reasons why contractor-owned property cannot be used;
 - (iii) Describe the property in sufficient detail to enable the Government to screen its inventories for available property or to otherwise acquire property, including applicable manufacturer, model, part, catalog, National Stock Number or other pertinent identifiers;
 - (iv) Combine requests for quantities of items with identical descriptions and estimated values when the estimated values do not exceed \$100,000 per unit; and
 - (v) Include only a single unit when the acquisition or construction value equals or exceeds \$100,000.
- (2) Contracting Officer authorization is required for items the Contractor intends to manufacture as well as those it intends to purchase.
- (3) The Contractor shall submit requests to the Contracting Officer no less than 30 days in advance of the date the Contractor would, should it receive authorization, acquire or begin fabrication of the item.
- (c) The Contractor shall maintain copies of Contracting Officer authorizations, appropriately cross-referenced to the individual property record, within its property management system.
- (d) Property furnished from Government excess sources is provided as-is, where-is. The Government makes no warranty regarding its applicability for performance of the contract or its ability to operate. Failure of property obtained from Government excess sources under this clause is insufficient reason for submission of requests for equitable adjustments discussed in the clause at FAR 52.245-1, Government Property, as incorporated in this contract.
- (e) In the event the Contracting Officer issues written authorization to provide property, the Contractor shall screen Government sources to determine the availability of property from Government inventory or excess property.
- (1) The Contractor shall review NASA inventories and other authorized Federal excess sources for availability of items that meet the performance requirements of the requested property.
- (i) If the Contractor determines that a suitable item is available from NASA supply inventory, it shall request the item using applicable Center procedures.
 - (ii) If the Contractor determines that an item within NASA or Federal excess is suitable, it shall contact the Center Industrial Property Officer to arrange for transfer of the item from the identified source to the Contractor.
- (2) If the Contractor determines that the required property is not available from inventory or excess sources, the Contractor shall note the acquisition file with a list of sources reviewed and the findings regarding the lack of availability. If the required property is available, but unsuitable for use, the contractor shall document the rationale for rejection of available property. The Contractor shall retain appropriate cross-referenced documentary evidence of the outcome of those screening efforts as part of its property records system.

(End of clause)

**G.8 INSTALLATION-ACCOUNTABLE GOVERNMENT PROPERTY (1852.245-71)
(JAN 2011) (ALT 1) (JAN 2011)**

(a) The Government property described in paragraph (c) of this clause may be made available to the Contractor on a no-charge basis for use in performance of this contract. This property shall be utilized only within the physical confines of the NASA installation that provided the property unless authorized by the Contracting Officer under (b)(1)(iv). Under this clause, the Government retains accountability for, and title to, the property, and the Contractor shall comply with the following:

NASA Procedural Requirements (NPR) 4100.1, NASA Materials Inventory Management Manual;

NASA Procedural Requirements (NPR) 4200.1, NASA Equipment Management Procedural Requirements;

NASA Procedural Requirement (NPR) 4300.1, NASA Personal Property Disposal Procedural Requirements;

NASA Program Directive (NPD) 4300.4, Use of Space Shuttle and Aerospace Vehicle Materials as Mementos;

NASA Procedural Requirements (NPR) 4310.1, Identification and Disposition of NASA Artifacts

NASA Procedural Requirements (NPR) 4200.2, NASA Equipment Management Manual for Property Custodians

JSC Procedural Requirement (JPR) 1281.7B, Control of Customer Property

JSC Procedural Requirement (JPR) 1281.15, Identification, Handling, Storage, Packaging, Preservation, and Delivery

JSC Work Instruction (JWI) 4200.1, Management of Controlled Equipment

JSC Work Instruction (JWI) 4210.2, JSC Instructions for Control of Program Stock (formally JSC 26549)

JSC Work Instruction (JWI) 4300.1, JSC Instructions for Excess and Disposal of Government Property

JSC Work Instruction (JWI) 6050.1A, Procedures for Processing Shipments from JSC

Property not recorded in NASA property systems must be managed in accordance with the requirements of the clause at FAR 52.245-1, as incorporated in this contract. The Contractor shall establish and adhere to a system of written procedures to assure continued, effective management control and compliance with these user responsibilities. In accordance with FAR 52.245-1(h)(1) the contractor shall be liable for property lost, damaged, destroyed or stolen by the contractor or their employees when determined responsible by a NASA Property Survey Board, in accordance with the NASA guidance in this clause.

(b)(1) The official accountable recordkeeping, financial control, and reporting of the property subject to this clause shall be retained by the Government and accomplished within NASA management information systems prescribed by the installation Supply and Equipment Management Officer (SEMO) and Financial Management Officer. If this contract provides for the Contractor to acquire property, title to which will vest in the Government, the following additional procedures apply:

- (i) The Contractor shall not utilize the installation's central receiving facility for receipt of contractor-acquired property. However, the Contractor shall provide listings suitable for establishing accountable records of all such property received, on a monthly basis, to the SEMO.
- (ii) The Contractor shall furnish a copy of each purchase order, prior to delivery by the vendor, to the installation central receiving area.
- (iii) The Contractor shall establish a record for Government titled property as required by FAR 52.245-1, as incorporated in this contract, and shall maintain that record until accountability is accepted by the Government.
- (iv) Contractor use of Government property at an off-site location and off-site subcontractor use requires advance approval of the Contracting Officer and notification of the Industrial Property Officer. The property shall be considered Government furnished and the Contractor shall assume accountability and financial reporting responsibility. The Contractor shall establish records and property control procedures and maintain the property in accordance with the requirements of FAR 52.245-1, Government Property (as incorporated in this contract), until its return to the installation. NASA Procedural Requirements related to property loans shall not apply to offsite use of property by contractors.

(2) After transfer of accountability to the Government, the Contractor shall continue to maintain such internal records as are necessary to execute the user responsibilities identified in paragraph (a) of this clause and document the acquisition, billing, and disposition of the property. These records and supporting documentation shall be made available, upon request, to the SEMO and any other authorized representatives of the Contracting Officer.

(c) The following property and services are provided if checked:

☒ (1) Office space, work area space, and utilities. Government telephones and computers are available for official purposes only.

☒ (2) Office furniture.

☒ (3) Property listed in J-3 Installation Accountable Government Property.

(i) If the Contractor acquires property, title to which vests in the Government pursuant to other provisions of this contract, this property also shall become accountable to the Government upon its entry into Government records.

(ii) The Contractor shall not bring to the installation for use under this contract any property owned or leased by the Contractor, or other property that the Contractor is accountable for under any other Government contract, without the Contracting Officer's prior written approval.

☐ (4) Supplies from stores stock.

☒ (5) Publications and blank forms stocked by the installation.

☒ (6) Safety and fire protection for Contractor personnel and facilities.

☒ (7) Installation service facilities: none

☒ (8) Medical treatment of a first-aid nature for Contractor personnel injuries or illnesses sustained during on-site duty.

☒ (9) Cafeteria privileges for Contractor employees during normal operating hours.

☒ (10) Building maintenance for facilities occupied by Contractor personnel.

☒ (11) On-site moving and hauling for office moves, movement of large equipment, and delivery of supplies. Moving services may be provided off-site, as approved by the Contracting Officer.

(End of clause)

G.9 FINANCIAL REPORTING OF NASA PROPERTY IN THE CUSTODY OF CONTRACTORS (NFS 1852.245-73) (JAN 2011)

(a) The Contractor shall submit annually a NASA Form (NF) 1018, NASA Property in the Custody of Contractors, in accordance this clause, the instructions on the form and NFS subpart 1845.71, and any supplemental instructions for the current reporting period issued by NASA.

(b) (1) Subcontractor use of NF 1018 is not required by this clause; however, the Contractor shall include data on property in the possession of subcontractors in the annual NF 1018.

(2) The Contractor shall mail the original signed NF 1018 directly to the cognizant NASA Center Deputy Chief Financial Officer, Finance, unless the Contractor uses the NF 1018 Electronic Submission System (NESS) for report preparation and submission.

(3) One copy shall be submitted (through the Department of Defense (DOD) Property Administrator if contract administration has been delegated to DOD) to the following address:

NASA/Johnson Space Center
2101 NASA Parkway
Mail code: JB3
Houston, TX 77058-3696

unless the Contractor uses the NF 1018 Electronic Submission System (NESS) for report preparation and submission.

(c)(1) The annual reporting period shall be from October 1 of each year through September 30 of the following year. The report shall be submitted in time to be received by October 15. The information contained in these reports is entered into the NASA accounting system to reflect current asset values for agency financial statement purposes. Therefore, it is essential that required reports be received no later than October 15. Some activity may be estimated for the month of September, if necessary, to ensure the NF 1018 is received when due. However, contractors' procedures must document the process for developing these estimates based on planned activity such as planned purchases or NASA Form 533 (NF 533 Contractor Financial Management Report) cost estimates. It should be supported and documented by historical experience or other corroborating evidence, and be retained in accordance with FAR Subpart 4.7, Contractor Records Retention. Contractors shall validate the reasonableness of the estimates and associated methodology by comparing them to the actual activity once that data is available, and adjust them accordingly. In addition, differences between the estimated cost and actual cost must be adjusted during the next reporting period. Contractors shall have formal policies and procedures, which address the validation of NF 1018 data, including data from subcontractors, and the identification and timely reporting of errors. The objective of this validation is to ensure that information reported is accurate and in compliance with the NASA FAR Supplement. If errors are discovered on NF 1018 after submission, the contractor shall contact the cognizant NASA Center Industrial Property Officer (IPO) within 30 days after discovery of the error to discuss corrective action.

(2) The Contracting Officer may, in NASA's interest, withhold payment until a reserve not exceeding \$25,000 or 5 percent of the amount of the contract, whichever is less, has been set aside, if the Contractor fails to submit annual NF 1018 reports in accordance

with NFS subpart 1845.71 and any supplemental instructions for the current reporting period issued by NASA. Such reserve shall be withheld until the Contracting Officer has determined that NASA has received the required reports. The withholding of any amount or the subsequent payment thereof shall not be construed as a waiver of any Government right.

(d) A final report shall be submitted within 30 days after disposition of all property subject to reporting when the contract performance period is complete in accordance with paragraph (b)(1) through (3) of this clause.

(End of clause)

**G.10 IDENTIFICATION AND MARKING OF GOVERNMENT EQUIPMENT (NFS)
(1852.245-74) (JAN 2011)**

(a) The Contractor shall identify all equipment to be delivered to the Government using NASA Technical Handbook (NASA-HDBK) 6003, Application of Data Matrix Identification Symbols to Aerospace Parts Using Direct Part Marking Methods/Techniques, and NASA Standard (NASA-STD) 6002, Applying Data Matrix Identification Symbols on Aerospace Parts or through the use of commercial marking techniques that: (1) are sufficiently durable to remain intact through the typical lifespan of the property: and, (2) contain the data and data format required by the standards. This requirement includes deliverable equipment listed in the schedule and other equipment when no longer required for contract performance and NASA directs physical transfer to NASA or a third party. The Contractor shall identify property in both machine and human readable form unless the use of a machine readable-only format is approved by the NASA Industrial Property Officer.

(b) Equipment shall be marked in a location that will be human readable, without disassembly or movement of the equipment, when the items are placed in service unless such placement would have a deleterious effect on safety or on the item's operation.

(c) Concurrent with equipment delivery or transfer, the Contractor shall provide the following data in an electronic spreadsheet format:

- (1) Item Description.
- (2) Unique Identification Number (License Tag).
- (3) Unit Price.
- (4) An explanation of the data used to make the unique identification number.

(d) For equipment no longer needed for contract performance and physically transferred under paragraph (a) of this clause, the following additional data is required:

- (1) Date originally placed in service.
- (2) Item condition.

(e) The data required in paragraphs (c) and (d) of this clause shall be delivered to the

NASA center receiving activity listed below:

NASA Johnson Space Center
Central Receiving, Bldg. 420
2101 NASA Parkway
Houston, TX 77058-3696

The contractor shall include the substance of this clause, including this paragraph (f), in all subcontracts that require delivery of equipment.

(End of Clause)

G.11 PROPERTY MANAGEMENT CHANGES (NFS 1852.245-75) (JAN 2011)

(a) The Contractor shall submit any changes to standards and practices used for management and control of Government property under this contract to the assigned property administrator prior to making the change whenever the change —

- (1) Employs a standard that allows increase in thresholds or changes the timing for reporting loss, damage, or destruction of property;
- (2) Alters physical inventory timing or procedures;
- (3) Alters recordkeeping practices;
- (4) Alters practices for recording the transport or delivery of Government property; or
- (5) Alters practices for disposition of Government property.

(End of clause)

G.12 LIST OF GOVERNMENT PROPERTY FURNISHED PURSUANT TO FAR 52.245-1(1852.245-76) (JAN 2011)

For performance of work under this contract, the Government will make available Government property identified below or in Attachment J-4 Government Furnished Property of this contract on a no charge-for-use basis pursuant to the clause at FAR 52.245-1, Government Property, as incorporated in this contract. The Contractor shall use this property in the performance of this contract at their near-JSC off-site location and at other location(s) as may be approved by the Contracting Officer. Under FAR 52.245-1, the Contractor is accountable for the identified property.

(End of clause)

G.13 PHYSICAL INVENTORY OF CAPITAL PERSONAL PROPERTY (NFS 1852.245-78) (JAN 2011)

a) In addition to physical inventory requirements under the clause at FAR 52.245–1, Government Property, as incorporated in this contract, the Contractor shall conduct annual physical inventories for individual property items with an acquisition cost exceeding \$100,000.

(1) The Contractor shall inventory—

- (i) Items of property furnished by the Government;
- (ii) Items acquired by the Contractor and titled to the Government under the clause at FAR 52.245–1;
- (iii) Items constructed by the Contractor and not included in the deliverable, but titled to the Government under the clause at FAR 52.245–1; and
- (iv) Complete but undelivered deliverables.

(2) The Contractor shall use the physical inventory results to validate the property record data, specifically location and use status, and to prepare summary reports of inventory as described in paragraph (c) of this clause.

(b) Unless specifically authorized in writing by the Property Administrator, the inventory shall be performed and posted by individuals other than those assigned custody of the items, responsibility for maintenance, or responsibility for posting to the property record. The Contractor may request a waiver from this separation of duties requirement from the Property Administrator, when all of the conditions in either (1) or (2) of this paragraph are met.

(1) The Contractor utilizes an electronic system for property identification, such as a laser bar-code reader or radio frequency identification reader, and

- (i) The programs or software preclude manual data entry of inventory identification data by the individual performing the inventory; and
- (ii) The inventory and property management systems contain sufficient management controls to prevent tampering and assure proper posting of collected inventory data.

(2) The Contractor has limited quantities of property, limited personnel, or limited property systems; and the Contractor provides written confirmation that the Government property exists in the recorded condition and location;

(3) The Contractor shall submit the request to the cognizant property administrator and obtain approval from the property administrator prior to implementation of the practice.

(c) The Contractor shall report the results of the physical inventory to the property administrator within 10 calendar days of completion of the physical inventory. The report shall—

(1) Provide a summary showing number and value of items inventoried; and

(2) Include additional supporting reports of—

- (i) Loss in accordance with the clause at 52.245–1, Government Property;
- (ii) Idle property available for reuse or disposition; and
- (iii) A summary of adjustments made to location, condition, status, or user as a result of the physical inventory reconciliation.

(d) The Contractor shall retain auditable physical inventory records, including records supporting transactions associated with inventory reconciliation. All records shall be subject to Government review and/or audit.

(End of clause)

G.14 SECURITY/BADGING REQUIREMENTS FOR FOREIGN NATIONAL VISITORS AND EMPLOYEES OF FOREIGN CONTRACTORS (JSC 52.204-91) (JAN 2006) Reference NASA Procedural Requirement NPR 1600.1, Personal Identity Verification (PIV) Policy and Procedures

(a) An employee of a domestic Johnson Space Center (JSC) contractor or its subcontractor who is not a U.S. citizen (foreign national) may not be admitted to the JSC site for purposes of performing work without special arrangements. In addition, all employees or representatives of a foreign JSC contractor/subcontractor may not be admitted to the JSC site without special arrangements. For employees as described above, advance notice must be given to the Security Office of the host installation [JSC or White Sands Test Facility (WSTF)] at least three weeks prior to the scheduled need for access to the site so that instructions on obtaining access may be provided. Contractors should be aware that approval for access to the site and issuance of a badge may take much longer than three weeks and sufficient lead time must be allowed to accommodate the approval process.

(b) All visit/badge requests for persons described in (a) above must be entered in the NASA Foreign National Management System (NFMMS) for acceptance, review, concurrence, and approval purposes. When an authorized company official requests a JSC or WSTF badge for site access, he/she is certifying that steps have been taken to ensure that its contractor or subcontractor employees, visitors, or representatives will not be given access to export-controlled or classified information for which they are not authorized. These individuals shall serve as the contractor's representative(s) in certifying that all visit/badge request forms are processed in accordance with JSC and WSTF security and export control procedures. No foreign national, representative, or resident alien contractor/subcontractor employee shall be granted access into JSC or WSTF until approved and processed through the NFMMS. Unescorted access will not be granted unless a favorable National Agency Check (NAC) has been completed by the JSC Security Office, and an approved NASA Foreign National Visitor Security/Technology Control Plan (STTCP), (previously called the Access Control Plan) has been submitted and approved.

(c) The contractor agrees that it will not employ for the performance of work on-site at JSC or WSTF any individuals who are not legally authorized to work in the United States. If the JSC or WSTF Industrial Security Specialist or the contracting officer has reason to believe that any employee of the contractor may not be legally authorized to work in the United States and/or on the contract, the contractor may be required to furnish copies of Form I-9 (Employment Eligibility Verification), U.S. Department of Labor Application for Alien Employment Certification, and any other type of employment authorization document.

The contractor agrees to provide the information requested by JSC or WSTF Security Office in order to comply with NASA policy directives and guidelines related to foreign visits to NASA facilities so that (1) the visitor/employee/ representative may be allowed access to JSC or other NASA centers for performance of this contract, (2) required investigations can be conducted, and (3) required annual or revalidation reports can be submitted to NASA Headquarters. All requested information must be submitted in a timely manner in accordance with instructions provided by JSC or any other center to be visited.

(End of clause)

G.15 JSC HAZARDOUS MATERIALS USE (JSC 52.223-92) (MAY 2009)

(a) This clause is JSC-unique, and the requirements are in addition to any U.S. Environmental Protection Agency, U.S. Occupational Safety and Health Administration, or other state or Federal regulation or statute. Therefore, the following requirements do NOT supersede any statutory or regulatory requirements for any entity subject to this clause.

(b) "Hazardous materials," for the purposes of this clause, consist of the following:

(1) Those materials defined as "highly hazardous chemicals" in Occupational Safety and Health Administration Process Safety Management Regulation, 29 Code of Federal Regulation 1910.119, without regard for quantity.

(2) Those "extremely hazardous substances" subject to the emergency planning requirements in the Environmental Protection Agency Emergency Planning and Community Right-to-Know Regulation, 40 Code of Federal Regulation 355, Part 355, without regard for quantity.

(3) Those "hazardous substances" subject to the release notification requirements under Environmental Protection Agency's Emergency Planning and Community Right-to-Know Regulation, 40 Code of Federal Regulation 302.4, without regard for quantity.

(4) Any radioisotope material or device that produces ionizing radiation.

(5) Any Class II, III, or IV laser as defined by the American National Standards Institute No. Z136.1 (1986)

(6) Any explosive or any pyrotechnics

(7) Any pesticide.

(c) The contractor shall update the JSC inventory listing the identity and quantity of hazardous materials stored or used onsite at JSC for the performance of the contract.

- (d) The contractor shall ensure that the proper training of its employees in the use and inherent hazards of these materials is accomplished prior to use.
- (e) The contractor shall notify the JSC Clinical Services Branch (SD3) prior to any initial use or different application of these materials.
- (f) The contractor shall use all hazardous materials properly and take all necessary precautions to ensure no harm is done to humans or the environment.
- (g) The contractor shall insert the substance of this clause, including this Paragraph F with appropriate changes of designations of the parties, in subcontracts under which hazardous materials will be utilized, or may reasonably be expected to be utilized, onsite at JSC.
- (h) In the event the contractor fails or refuses to comply with any aspect of this clause, such failure or refusal may be considered a material breach of this contract.

(End of clause)

G.16 IDENTIFICATION OF EMPLOYEES (JSC 52.242-92) (OCT 2006)

At all times while on Government property, the contractor, subcontractors, their employees, and agents shall wear badges which will be issued by the NASA Badging & Visitor Control Office, located in Building 110 at the Johnson Space Center (JSC), or at the Main Gate at the White Sands Test Facility (WSTF). JSC employee credentials and visitor badges will be issued only between the hours of 6:00 a.m. to 5:30 p.m., Monday through Friday. WSTF employee badges will be issued only between the hours of 8 a.m. to 2 p.m., Monday through Friday. WSTF visitor badges will be issued on a 7-day-a-week, 24-hour-a-day basis. Resident aliens and foreign nationals/representatives shall be issued green foreign national badges.

Each individual who wears a badge shall be required to sign personally for the badge. The contractor shall be held accountable for issued badges and all other related items and must assure that they are returned to the NASA Badging & Visitor Control Offices upon completion of work under the contract in accordance with Security Management Directive (SMD) 500-15, "Security Termination Procedures." Failure to comply with the NASA contractor termination procedures upon completion of the work (e.g., return of badges, decals, keys, Controlled Access Area cards, clearance terminations, JSC Public Key Infrastructure (PKI)/special program deletions, etc.) may result in final payment being delayed.

(End of clause)

G.17 HUMAN RESEARCH POLICY AND PROCEDURES (JSC 52.242-93) (SEP 2000)

The contractor shall follow the human research policy and procedures stated in the current version (as of the effective date of the contract) of NASA Policy Directive 7100.8 - "Protection of Human Research Subjects," and shall furnish to the contracting officer, upon request, copies of protocols and contractor documents showing contractor Human Research Committee approval of such protocols.

(End of clause)

[END OF SECTION]

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT			1. CONTRACT D CODE		PAGE OF PAGES 1 4				
2. AMENDMENT/MODIFICATION NO. 000058		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)			
6. ISSUED BY NASA/Johnson Space Center Attn: Lawrence Miller/BH2 2101 NASA Parkway Houston TX 77058-3696		CODE JSC		7. ADMINISTERED BY (If other than Item 6) NASA/Johnson Space Center Attn: Lawrence Miller/BH2 281.483.3916 lawrence.l.miller@nasa.gov 2101 NASA Parkway Houston TX 77058-3696		CODE JSC			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) JACOBS 600 WILLIAM NORTHERN BLVD TULLAHOMA TN 37388-4729				(x)			9A. AMENDMENT OF SOLICITATION NO.		
							9B. DATED (SEE ITEM 11)		
CODE 07486 FACILITY CODE				x			10A. MODIFICATION OF CONTRACT/ORDER NO. NNJ13HA01C		
							10B. DATED (SEE ITEM 13) 02/08/2013		
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS									
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended. <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.									
12. ACCOUNTING AND APPROPRIATION DATA (If required) See Schedule				Net Decrease:		-\$624,101.21			
13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.									
CHECK ONE		A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.							
		B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).							
		C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:							
X		D. OTHER (Specify type of modification and authority) FAR 52.232-22, Limitation of Funds							
E. IMPORTANT Contractor <input checked="" type="checkbox"/> is not. <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.									
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.) The purpose of this modification is to 1) decrease contract funding from \$230,030,531.25 to \$229,406,430.04, an decrease of \$624,101.21; and 2) update contract clause B.5, Contract Funding.									
Payment Terms: Net 30 days FOB: Destination									
Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.									
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Christian C. Gaspard					
15B. CONTRACTOR/OFFEROR _____ (Signature of person authorized to sign)				15C. DATE SIGNED		16B. UNITED STATES OF AMERICA CHRISTIAN GASPARD <small>Digitally signed by CHRISTIAN GASPARD DN c=US, o=U.S. Government, ou=NASA, ou=People 09.2362.1100000001011=signature of christian GASPARD Date: 2014.11.05 10:09:59 -0600</small>		16C. DATE SIGNED 11/05/2014	

B.3 CONTRACT PHASE-IN (FIRM-FIXED PRICE)

The total firm fixed price of all phase-in effort for this contract is **\$(b) (4)** covering a 60-calendar day phase-in period from **March 1, 2013** through **April 30, 2013**.

(End of clause)

B.5 CONTRACT FUNDING (NFS 1852.232-81) (JUN 1990)

(a) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds clause, the total amount allotted by the Government to this contract is **\$(b) (4)**. This allotment is for JSC Engineering, Technology and Science (JETS) efforts at NASA/JSC and covers the following estimated period of performance: May 1, 2013 through **November 19, 2014**.

(b) An additional amount of **\$(b) (4)** is obligated under this contract for payment of fee.

(End of clause)

TOTAL			
	Prior Funding Thru Mod 57	Current Action Mod 58	Total Funding Thru Mod 58
Cost	(b) (4)		
Fee			
FFP			
Total	\$230,030,531.25	(\$624,101.21)	\$229,406,430.04

DE-OBLIGATIONS				
PR #	PLI	ALI	WBS Element	Amount
4200505101	1	83	871056.08.05.01.01.02	\$3,672.29
4200518944	1	35	871056.08.05.01.01.02	\$2,496.58
4200518944	1	52	747797.06.54.21.10	\$1,384.98
4200519281	2	29	871056.06.02.01.09.01	\$124.30
4200519281	2	30	871056.08.05.01.01.02	\$201.76
4200523282	1	71	764214.04.01.01	\$50,000.00
4200523324	2	17	869021.03.05.01.01	\$73,575.00
4200523324	2	16	854319.03.01	\$80,000.00
4200527005	1	29	854319.03.01	\$20,000.00
4200527005	1	39	804911.02.05.2011.13	\$13,344.59
4200527005	1	56	747797.06.54.21.10	\$2,847.23
4200527005	1	57	747797.10.02.33.10	\$5,922.14
4200528909	1	74	747797.06.13.10.99.10	\$2,000.00
4200529031	3	4	371544.01.06	\$10,000.00
4200530115	1	36	573754.01.01.01.40.02.01	\$170,498.00
4200530115	1	35	743588.06.08.01	\$56,078.00
4200530115	1	47	564740.06.01.02	\$5,519.40
4200530115	1	50	747797.06.54.21.10	\$17,457.53
4200530115	1	51	747797.10.02.33.10	\$23,826.14
4200530115	1	64	401769.06.03.04.02.03	\$3,183.00
4200530115	2	5	747797.06.13.07.20.10	\$2,000.00

4200530142	3	12	401769.06.06.01.02.15	\$15,000.00
4200530142	3	23	854319.03.01	\$63,921.95
4200530115	1	48	609524.07.01.02.07.16	\$1,048.32
Total				\$ (624,101.21)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1. CONTRACT D CODE		PAGE OF PAGES	
						1 36	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
000059		See Block 16C		See Schedule			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		JSC				JSC	
NASA/Johnson Space Center Attn: Lawrence Miller/BH2 2101 NASA Parkway Houston TX 77058-3696				NASA/Johnson Space Center Attn: Lawrence Miller/BH2 281.483.3916 lawrence.l.miller@nasa.gov 2101 NASA Parkway Houston TX 77058-3696			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
JACOBS 600 WILLIAM NORTHERN BLVD TULLAHOMA TN 37388-4729							
				9B. DATED (SEE ITEM 11)			
				x 10A. MODIFICATION OF CONTRACT/ORDER NO. NNJ13HA01C			
				10B. DATED (SEE ITEM 13)			
CODE 07486		FACILITY CODE		02/08/2013			
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended. <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$19,416,520.86	
See Schedule							
13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) FAR 52.232-22, Limitation of Funds						
E. IMPORTANT Contractor <input checked="" type="checkbox"/> is not. <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
The purpose of this modification is to 1) increase contract funding from \$229,406,430.04 to \$248,822,950.90, an increase of \$19,416,520.86; and 2) update contract clause B.5, Contract Funding.							
Payment Terms: Net 30 days FOB: Destination							
005 JETS BASE II PERIOD-INCREMENTAL FUNDING				789,043,569.96			
Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				Christian C. Gaspard			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA CHRISTIAN GASPARD		16C. DATE SIGNED	
(Signature of person authorized to sign)				(Signature of Contracting Officer)		11/12/2014	

NSN 7540-01-152-8070
Previous edition unusable

STANDARD FORM 30 (REV. 10-83)
Prescribed by GSA
FAR (48 CFR) 53.243

CONTINUATION SHEET	REFERENCE NO. OF DOCUMENT BEING CONTINUED NNJ13HA01C/000059	PAGE	OF
		2	36

NAME OF OFFEROR OR CONTRACTOR
JACOBS

ITEM NO. (A)	SUPPL ES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	Requisition No: 4200532830, 4200532963, 4200533086 Accounting Info: 72EC11/6100.2550/72/FC000000/359257.01.10.01/000/2 550/72/CASX22015D/046A/8015/160122/1/2 Cost Center: 72EC11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 359257.01.10.01 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: CASX22015D Functional Area: 046A Appropriation: 8015/160122 Funded: \$46,533.33 Accounting Info: 72EC11/6100.2550/72/FC000000/401769.06.03.02.02.0/ 1/000/2550/72/EXCX22015D/733B/8015/160115/2/3 Cost Center: 72EC11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 401769.06.03.02.02.0 WBS Element2: 1 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 Funded: \$5,016.67 Accounting Info: 72EC11/6100.2550/72/FC000000/401769.06.03.02.02.0/ 2/000/2550/72/EXCX22015D/733B/8015/160115/3/4 Cost Center: 72EC11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 401769.06.03.02.02.0 WBS Element2: 2 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 Funded: \$2,216.67 Accounting Info: 72EC11/6100.2550/72/FC000000/401769.06.03.02.02.1/ 9/000/2550/72/EXCX22015D/733B/8015/160115/4/5 Cost Center: 72EC11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 401769.06.03.02.02.1 WBS Element2: 9 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 Funded: \$1,050.00 Accounting Info: 72EC11/6100.2550/72/FC000000/401769.06.03.03.02.0/ 3/000/2550/72/EXCX22015D/733B/8015/160115/5/6 Cost Center: 72EC11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 401769.06.03.03.02.0 WBS Element2: 3 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 Funded: \$9,783.33 Accounting Info: 72EC11/6100.2550/72/FC000000/401769.06.03.03.02.0/ 6/000/2550/72/EXCX22015D/733B/8015/160115/6/7 Continued ...				

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	Cost Center: 72EC11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 401769.06.03.03.02.0 WBS Element2: 6 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 Funded: \$16,419.27 Accounting Info: 72EC11/6100.2550/72/FC000000/401769.06.03.03.02.2/ 1/000/2550/72/EXCX22015D/733B/8015/160115/7/8 Cost Center: 72EC11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 401769.06.03.03.02.2 WBS Element2: 1 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 Funded: \$18,200.00 Accounting Info: 72EC11/6100.2550/72/FC000000/401769.06.05.01.02.0/ 3/000/2550/72/EXCX22015D/733B/8015/160115/8/9 Cost Center: 72EC11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 401769.06.05.01.02.0 WBS Element2: 3 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 Funded: \$6,666.67 Accounting Info: 72EC11/6100.2550/72/FC000000/401769.06.05.01.02.1/ 6/000/2550/72/EXCX22015D/733B/8015/160115/9/10 Cost Center: 72EC11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 401769.06.05.01.02.1 WBS Element2: 6 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 Funded: \$666.67 Accounting Info: 72EC11/6100.2550/72/FC000000/401769.06.05.02.02.1/ 7/000/2550/72/EXCX22015D/733B/8015/160115/10/11 Cost Center: 72EC11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 401769.06.05.02.02.1 WBS Element2: 7 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 Funded: \$2,500.00 Accounting Info: 72EC11/6100.2550/72/FC000000/401769.06.06.01.02.0/ 1/000/2550/72/EXCX22015D/733B/8015/160115/11/12 Cost Center: 72EC11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 401769.06.06.01.02.0 WBS Element2: 1 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 Continued ...				

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	<p>Funded: \$4,833.33</p> <p>Accounting Info:</p> <p>72EC11/6100.2550/72/FC000000/401769.06.06.01.02.0/2/000/2550/72/EXCX22015D/733B/8015/160115/12/13</p> <p>Cost Center: 72EC11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 401769.06.06.01.02.0 WBS Element2: 2 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115</p> <p>Funded: \$4,833.33</p> <p>Accounting Info:</p> <p>72EC11/6100.2550/72/FC000000/401769.06.06.01.02.0/4/000/2550/72/EXCX22015D/733B/8015/160115/13/14</p> <p>Cost Center: 72EC11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 401769.06.06.01.02.0 WBS Element2: 4 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115</p> <p>Funded: \$6,666.67</p> <p>Accounting Info:</p> <p>72EC11/6100.2550/72/FC000000/401769.06.06.01.02.0/5/000/2550/72/EXCX22015D/733B/8015/160115/14/15</p> <p>Cost Center: 72EC11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 401769.06.06.01.02.0 WBS Element2: 5 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115</p> <p>Funded: \$9,066.67</p> <p>Accounting Info:</p> <p>72EC11/6100.2550/72/FC000000/401769.06.06.01.02.0/7/000/2550/72/EXCX22015D/733B/8015/160115/15/16</p> <p>Cost Center: 72EC11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 401769.06.06.01.02.0 WBS Element2: 7 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115</p> <p>Funded: \$533.33</p> <p>Accounting Info:</p> <p>72EC11/6100.2550/72/FC000000/401769.06.06.01.02.0/7.01/000/2550/72/EXCX22015D/733B/8015/160115/16/17</p> <p>Cost Center: 72EC11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 401769.06.06.01.02.0 WBS Element2: 7.01 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115</p> <p>Funded: \$3,416.67</p> <p>Accounting Info:</p> <p>72EC11/6100.2550/72/FC000000/401769.06.06.01.02.3/9/000/2550/72/EXCX22015D/733B/8015/160115/17/18</p> <p>Cost Center: 72EC11 GL Account: 6100.2550 Order: Continued ...</p>				

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	FC000000 WBS Element1: 401769.06.06.01.02.3 WBS Element2: 9 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 Funded: \$2,750.00 Accounting Info: 72EC11/6100.2550/72/FC000000/401769.06.06.03.01.0/ 1/000/2550/72/EXCX22015D/733B/8015/160115/18/19 Cost Center: 72EC11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 401769.06.06.03.01.0 WBS Element2: 1 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 Funded: \$1,666.67 Accounting Info: 72AO311/6100.2550/72/FC000000/736466.01.01.05.03/0 00/2550/72/CASX22015D/361N/8015/160122/1/2 Cost Center: 72AO311 GL Account: 6100.2550 Order: FC000000 WBS Element1: 736466.01.01.05.03 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: CASX22015D Functional Area: 361N Appropriation: 8015/160122 Funded: \$21,589.00 Accounting Info: 72AO311/6100.2550/72/FC000000/432938.09.01.05.02.0 /6.02/000/2550/72/CASX22015D/361N/8015/160122/2/3 Cost Center: 72AO311 GL Account: 6100.2550 Order: FC000000 WBS Element1: 432938.09.01.05.02.0 WBS Element2: 6.02 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: CASX22015D Functional Area: 361N Appropriation: 8015/160122 Funded: \$176,000.00 Accounting Info: 72AO111/6100.2550/72/FC000000/471296.01.10/000/255 0/72/SPTX22015D/059B/8015/160131/3/4 Cost Center: 72AO111 GL Account: 6100.2550 Order: FC000000 WBS Element1: 471296.01.10 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: SPTX22015D Functional Area: 059B Appropriation: 8015/160131 Funded: \$48,000.00 Accounting Info: 72EA411/6100.2550/72/FC000000/401769.06.01.01.01/0 00/2550/72/EXCX22015D/733B/8015/160115/5/6 Cost Center: 72EA411 GL Account: 6100.2550 Order: FC000000 WBS Element1: 401769.06.01.01.01 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 Funded: \$400,000.00 Continued ...				

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	Accounting Info: 72A0111/6100.2550/72/FC000000/736466.01.08.05.05.1 /9/000/2550/72/CASX22015D/361N/8015/160122/6/7 Cost Center: 72A0111 GL Account: 6100.2550 Order: FC000000 WBS Element1: 736466.01.08.05.05.1 WBS Element2: 9 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: CASX22015D Functional Area: 361N Appropriation: 8015/160122 Funded: \$45,000.00 Accounting Info: 72EA411/6100.2550/72/FC000000/581570.03.04.08/000/ 2550/72/EXCX22015D/733B/8015/160115/7/8 Cost Center: 72EA411 GL Account: 6100.2550 Order: FC000000 WBS Element1: 581570.03.04.08 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 Funded: \$400,000.00 Accounting Info: 72EA411/6100.2550/72/FC000000/871056.06.02.01.09.1 /0/000/2550/72/EXCX22015D/733B/8015/160115/8/9 Cost Center: 72EA411 GL Account: 6100.2550 Order: FC000000 WBS Element1: 871056.06.02.01.09.1 WBS Element2: 0 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 Funded: \$60,000.00 Accounting Info: 72EA511/6100.2550/72/FC000000/247926.06.01/000/255 0/72/EXPX22015D/806K/8015/160124/9/10 Cost Center: 72EA511 GL Account: 6100.2550 Order: FC000000 WBS Element1: 247926.06.01 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXPX22015D Functional Area: 806K Appropriation: 8015/160124 Funded: \$159,581.00 Accounting Info: 72EA511/6100.2550/72/FC000000/464502.01.01.01/000/ 2550/72/EXCX22015D/421A/8015/160115/10/11 Cost Center: 72EA511 GL Account: 6100.2550 Order: FC000000 WBS Element1: 464502.01.01.01 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 421A Appropriation: 8015/160115 Funded: \$28,000.00 Accounting Info: 72EA511/6100.2550/72/FC000000/747797.06.14.03.99.1 /0/000/2550/72/EXPX22015D/201E/8015/160124/11/12 Cost Center: 72EA511 GL Account: 6100.2550 Order: FC000000 WBS Element1: 747797.06.14.03.99.1 WBS Continued ...				

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	<p>Element2: 0 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXPX22015D Functional Area: 201E Appropriation: 8015/160124 Funded: \$4,000,000.00 Accounting Info: 72EA551/6100.2550/72/FC000000/747797.06.14.03.99.1 /0/000/2550/72/EXPX22015D/201E/8015/160124/12/13 Cost Center: 72EA551 GL Account: 6100.2550 Order: FC000000 WBS Element1: 747797.06.14.03.99.1 WBS Element2: 0 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXPX22015D Functional Area: 201E Appropriation: 8015/160124 Funded: \$600,000.00 Accounting Info: 72EA511/6100.2550/72/FC000000/871056.06.02.01.09.0 /9/000/2550/72/EXCX22015D/733B/8015/160115/13/14 Cost Center: 72EA511 GL Account: 6100.2550 Order: FC000000 WBS Element1: 871056.06.02.01.09.0 WBS Element2: 9 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 Funded: \$269,000.00 Accounting Info: 72EA511/6100.2550/72/FC000000/871056.06.02.01.09.1 /1/000/2550/72/EXCX22015D/733B/8015/160115/14/15 Cost Center: 72EA511 GL Account: 6100.2550 Order: FC000000 WBS Element1: 871056.06.02.01.09.1 WBS Element2: 1 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 Funded: \$200,000.00 Accounting Info: 72VA11/6100.2550/72/FC000000/086916.01.01.02.02.0/ 1/000/2550/72/EXPX22015D/547E/8015/160124/16/18 Cost Center: 72VA11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 086916.01.01.02.02.0 WBS Element2: 1 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXPX22015D Functional Area: 547E Appropriation: 8015/160124 Funded: \$1,500.00 Accounting Info: 72EC11/6100.2550/72/FC000000/359257.01.10.01/000/2 550/72/CASX22015D/046A/8015/160122/17/20 Cost Center: 72EC11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 359257.01.10.01 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: CASX22015D Functional Area: 046A Appropriation: 8015/160122 Funded: \$143,823.05 Accounting Info: Continued ...</p>				

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	72EC11/6100.2550/72/FC000000/387873.04.10.72/000/2 550/72/EXPX22015D/806K/8015/160124/18/21 Cost Center: 72EC11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 387873.04.10.72 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXPX22015D Functional Area: 806K Appropriation: 8015/160124 Funded: \$100.00 Accounting Info: 72EC11/6100.2550/72/FC000000/387873.04.20.72/000/2 550/72/EXPX22015D/806K/8015/160124/19/22 Cost Center: 72EC11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 387873.04.20.72 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXPX22015D Functional Area: 806K Appropriation: 8015/160124 Funded: \$100.00 Accounting Info: 72EC11/6100.2550/72/FC000000/387873.04.30.72/000/2 550/72/EXPX22015D/806K/8015/160124/20/23 Cost Center: 72EC11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 387873.04.30.72 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXPX22015D Functional Area: 806K Appropriation: 8015/160124 Funded: \$100.00 Accounting Info: 72EC11/6100.2550/72/FC000000/401769.06.01.01.27/00 0/2550/72/EXCX22015D/733B/8015/160115/21/24 Cost Center: 72EC11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 401769.06.01.01.27 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 Funded: \$21,000.00 Accounting Info: 72EC11/6100.2550/72/FC000000/401769.06.03.02.02.0/ 1/000/2550/72/EXCX22015D/733B/8015/160115/22/25 Cost Center: 72EC11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 401769.06.03.02.02.0 WBS Element2: 1 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 Funded: \$60,000.00 Accounting Info: 72EC11/6100.2550/72/FC000000/401769.06.03.03.02.0/ 3/000/2550/72/EXCX22015D/733B/8015/160115/23/26 Cost Center: 72EC11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 401769.06.03.03.02.0 WBS Element2: 3 Item Number: 000 Commitment Item: Continued ...				

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	<p>2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 Funded: \$82,108.00 Accounting Info: 72EC11/6100.2550/72/FC000000/401769.06.05.01.02.0/3/000/2550/72/EXCX22015D/733B/8015/160115/24/27 Cost Center: 72EC11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 401769.06.05.01.02.0 WBS Element2: 3 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 Funded: \$35,000.00 Accounting Info: 72EC11/6100.2550/72/FC000000/401769.06.05.01.02.1/6/000/2550/72/EXCX22015D/733B/8015/160115/25/28 Cost Center: 72EC11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 401769.06.05.01.02.1 WBS Element2: 6 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 Funded: \$51,000.00 Accounting Info: 72EC11/6100.2550/72/FC000000/401769.06.06.01.02.0/1/000/2550/72/EXCX22015D/733B/8015/160115/26/29 Cost Center: 72EC11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 401769.06.06.01.02.0 WBS Element2: 1 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 Funded: \$43,000.00 Accounting Info: 72EC11/6100.2550/72/FC000000/401769.06.06.01.02.0/2/000/2550/72/EXCX22015D/733B/8015/160115/27/30 Cost Center: 72EC11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 401769.06.06.01.02.0 WBS Element2: 2 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 Funded: \$43,000.00 Accounting Info: 72EC11/6100.2550/72/FC000000/401769.06.06.01.02.0/4/000/2550/72/EXCX22015D/733B/8015/160115/28/31 Cost Center: 72EC11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 401769.06.06.01.02.0 WBS Element2: 4 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 Funded: \$140,000.00 Accounting Info: 72EC11/6100.2550/72/FC000000/401769.06.06.01.02.0/Continued ...</p>				

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	5/000/2550/72/EXCX22015D/733B/8015/160115/29/32 Cost Center: 72EC11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 401769.06.06.01.02.0 WBS Element2: 5 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 Funded: \$115,000.00 Accounting Info: 72EC11/6100.2550/72/FC000000/401769.06.06.01.02.0/ 6/000/2550/72/EXCX22015D/733B/8015/160115/30/33 Cost Center: 72EC11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 401769.06.06.01.02.0 WBS Element2: 6 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 Funded: \$550,000.00 Accounting Info: 72EC11/6100.2550/72/FC000000/401769.06.06.01.02.3/ 9/000/2550/72/EXCX22015D/733B/8015/160115/31/34 Cost Center: 72EC11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 401769.06.06.01.02.3 WBS Element2: 9 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 Funded: \$56,333.00 Accounting Info: 72EC11/6100.2550/72/FC000000/401769.06.06.03.01.0/ 1/000/2550/72/EXCX22015D/733B/8015/160115/32/35 Cost Center: 72EC11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 401769.06.06.03.01.0 WBS Element2: 1 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 Funded: \$60,000.00 Accounting Info: 72EC11/6100.2550/72/FC000000/401769.06.08.01.04.0/ 3.01/000/2550/72/EXCX22015D/733B/8015/160115/33/36 Cost Center: 72EC11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 401769.06.08.01.04.0 WBS Element2: 3.01 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 Funded: \$7,000.00 Accounting Info: 72EC11/6100.2550/72/FC000000/411672.10.05.01/000/2 550/72/SCEX22014D/913K/8014/150120/34/37 Cost Center: 72EC11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 411672.10.05.01 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: SCEX22014D Functional Area: 913K Continued ...				

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	Appropriation: 8014/150120 Funded: \$13,926.00 Accounting Info: 72EC11/6100.2550/72/FC000000/411672.10.05.01/000/2 550/72/SCEX22015D/913K/8015/160120/35/38 Cost Center: 72EC11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 411672.10.05.01 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: SCEX22015D Functional Area: 913K Appropriation: 8015/160120 Funded: \$700,000.00 Accounting Info: 72EC11/6100.2550/72/FC000000/747797.06.13.12.99.1/ 0/000/2550/72/EXPX22015D/201E/8015/160124/36/39 Cost Center: 72EC11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 747797.06.13.12.99.1 WBS Element2: 0 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXPX22015D Functional Area: 201E Appropriation: 8015/160124 Funded: \$60,000.00 Accounting Info: 72EC11/6100.2550/72/FC000000/769347.05.08.13.02.1/ 0/000/2550/72/EXCX22015D/733B/8015/160115/37/40 Cost Center: 72EC11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 769347.05.08.13.02.1 WBS Element2: 0 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 Funded: \$125,000.00 Accounting Info: 72EC11/6100.2550/72/FC000000/769347.05.08.13.04.0/ 1/000/2550/72/EXCX22015D/733B/8015/160115/38/41 Cost Center: 72EC11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 769347.05.08.13.04.0 WBS Element2: 1 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 Funded: \$185,000.00 Accounting Info: 72EG11/6100.2550/72/FC000000/729200.02.05.01/000/2 550/72/SPTX22015D/334L/8015/160131/40/43 Cost Center: 72EG11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 729200.02.05.01 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: SPTX22015D Functional Area: 334L Appropriation: 8015/160131 Funded: \$17,500.00 Accounting Info: 72EG11/6100.2550/72/FC000000/871056.06.02.01.09.1/ 0/000/2550/72/EXCX22015D/733B/8015/160115/41/44 Continued ...				

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	Cost Center: 72EG11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 871056.06.02.01.09.1 WBS Element2: 0 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 Funded: \$25,000.00 Accounting Info: 72EG11/6100.2550/72/FC000000/432938.11.01.05.01.0/ 2.03/000/2550/72/CASX22015D/361N/8015/160122/42/45 Cost Center: 72EG11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 432938.11.01.05.01.0 WBS Element2: 2.03 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: CASX22015D Functional Area: 361N Appropriation: 8015/160122 Funded: \$19,000.00 Accounting Info: 72EG11/6100.2550/72/FC000000/581570.02.02.02.02/00 0/2550/72/EXCX22015D/733B/8015/160115/43/46 Cost Center: 72EG11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 581570.02.02.02.02 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 Funded: \$115,000.00 Accounting Info: 72EG11/6100.2550/72/FC000000/401769.06.04.01.02.0/ 6/000/2550/72/EXCX22015D/733B/8015/160115/44/47 Cost Center: 72EG11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 401769.06.04.01.02.0 WBS Element2: 6 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 Funded: \$130,000.00 Accounting Info: 72EG11/6100.2550/72/FC000000/747797.06.13.15.99.1/ 0/000/2550/72/EXPX22015D/201E/8015/160124/45/48 Cost Center: 72EG11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 747797.06.13.15.99.1 WBS Element2: 0 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXPX22015D Functional Area: 201E Appropriation: 8015/160124 Funded: \$229,000.00 Accounting Info: 72EG11/6100.2550/72/FC000000/401769.06.04.01.02.0/ 5/000/2550/72/EXCX22015D/733B/8015/160115/46/49 Cost Center: 72EG11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 401769.06.04.01.02.0 WBS Element2: 5 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 Continued ...				

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	Funded: \$25,000.00 Accounting Info: 72EG11/6100.2550/72/FC000000/401769.06.04.01.02.1/0/000/2550/72/EXCX22015D/733B/8015/160115/47/50 Cost Center: 72EG11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 401769.06.04.01.02.1 WBS Element2: 0 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 Funded: \$25,000.00 Accounting Info: 72EG11/6100.2550/72/FC000000/747797.02.09.99.10/000/2550/72/EXPX22015D/201E/8015/160124/48/51 Cost Center: 72EG11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 747797.02.09.99.10 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXPX22015D Functional Area: 201E Appropriation: 8015/160124 Funded: \$12,604.00 Accounting Info: 72EG11/6100.2550/72/FC000000/902152.01.05.01/000/2550/72/SPTX22015D/334L/8015/160131/49/52 Cost Center: 72EG11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 902152.01.05.01 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: SPTX22015D Functional Area: 334L Appropriation: 8015/160131 Funded: \$20,000.00 Accounting Info: 72EG11/6100.2550/72/FC000000/020920.01.06.03/000/2550/72/SPTX22014D/277J/8014/150131/50/53 Cost Center: 72EG11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 020920.01.06.03 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: SPTX22014D Functional Area: 277J Appropriation: 8014/150131 Funded: \$49.56 Accounting Info: 72ER11/6100.2550/72/FC000000/089929.01.06.01/000/2550/72/SPTX22014D/334L/8014/150131/51/54 Cost Center: 72ER11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 089929.01.06.01 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: SPTX22014D Functional Area: 334L Appropriation: 8014/150131 Funded: \$1,300.09 Accounting Info: 72ER11/6100.2550/72/FC000000/210935.04.05.02/000/2550/72/SPTX22015D/334L/8015/160131/52/55 Cost Center: 72ER11 GL Account: 6100.2550 Order: Continued ...				

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	FC000000 WBS Element1: 210935.04.05.02 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: SPTX22015D Functional Area: 334L Appropriation: 8015/160131 Funded: \$20,000.00 Accounting Info: 72ER11/6100.2550/72/FC000000/401769.06.03.06.02.1/ 4/000/2550/72/EXCX22015D/733B/8015/160115/53/56 Cost Center: 72ER11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 401769.06.03.06.02.1 WBS Element2: 4 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 Funded: \$172,000.00 Accounting Info: 72ER11/6100.2550/72/FC000000/401769.06.03.06.02.1/ 7/000/2550/72/EXCX22015D/733B/8015/160115/54/57 Cost Center: 72ER11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 401769.06.03.06.02.1 WBS Element2: 7 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 Funded: \$203,000.00 Accounting Info: 72ER11/6100.2550/72/FC000000/401769.06.03.06.02.1/ 8/000/2550/72/EXCX22015D/733B/8015/160115/55/58 Cost Center: 72ER11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 401769.06.03.06.02.1 WBS Element2: 8 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 Funded: \$144,000.00 Accounting Info: 72ER11/6100.2550/72/FC000000/401769.06.03.06.02.2/ 3/000/2550/72/EXCX22015D/733B/8015/160115/56/59 Cost Center: 72ER11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 401769.06.03.06.02.2 WBS Element2: 3 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 Funded: \$61,000.00 Accounting Info: 72ER11/6100.2550/72/FC000000/401769.06.05.02.02.0/ 3/000/2550/72/EXCX22015D/733B/8015/160115/57/60 Cost Center: 72ER11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 401769.06.05.02.02.0 WBS Element2: 3 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 Funded: \$781,200.00 Continued ...				

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	Accounting Info: 72ER11/6100.2550/72/FC000000/401769.06.06.01.02.1/ 0/000/2550/72/EXCX22015D/733B/8015/160115/58/61 Cost Center: 72ER11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 401769.06.06.01.02.1 WBS Element2: 0 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 Funded: \$71,000.00 Accounting Info: 72ER11/6100.2550/72/FC000000/401769.06.06.01.02.2/ 9.01/000/2550/72/EXCX22015D/733B/8015/160115/59/62 Cost Center: 72ER11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 401769.06.06.01.02.2 WBS Element2: 9.01 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 Funded: \$50,000.00 Accounting Info: 72ER11/6100.2550/72/FC000000/401769.06.06.01.02.3/ 6/000/2550/72/EXCX22015D/733B/8015/160115/60/63 Cost Center: 72ER11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 401769.06.06.01.02.3 WBS Element2: 6 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 Funded: \$10,000.00 Accounting Info: 72ER11/6100.2550/72/FC000000/609524.07.01.02.07.1/ 6/000/2550/72/EXCX22015D/733B/8015/160115/61/64 Cost Center: 72ER11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 609524.07.01.02.07.1 WBS Element2: 6 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 Funded: \$400,000.00 Accounting Info: 72ER11/6100.2550/72/FC000000/609524.09.03.03.08.3/ 4.11/000/2550/72/EXCX22015D/733B/8015/160115/62/65 Cost Center: 72ER11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 609524.09.03.03.08.3 WBS Element2: 4.11 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 Funded: \$20,000.00 Accounting Info: 72ER11/6100.2550/72/FC000000/747797.02.04.20.10/00 0/2550/72/EXPX22015D/201E/8015/160124/63/66 Cost Center: 72ER11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 747797.02.04.20.10 Item Continued ...				

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	Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXPX22015D Functional Area: 201E Appropriation: 8015/160124 Funded: \$9,000.00 Accounting Info: 72ER11/6100.2550/72/FC000000/747797.06.53.99.10/00 0/2550/72/EXPX22015D/201E/8015/160124/64/67 Cost Center: 72ER11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 747797.06.53.99.10 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXPX22015D Functional Area: 201E Appropriation: 8015/160124 Funded: \$220,000.00 Accounting Info: 72ER11/6100.2550/72/FC000000/747797.10.02.31.10/00 0/2550/72/EXPX22015D/201E/8015/160124/65/68 Cost Center: 72ER11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 747797.10.02.31.10 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXPX22015D Functional Area: 201E Appropriation: 8015/160124 Funded: \$175,000.00 Accounting Info: 72ER11/6100.2550/72/FC000000/804911.02.05.01.2135/ .14/000/2550/72/CASX22014R/572R/8014/150122/66/69 Cost Center: 72ER11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 804911.02.05.01.2135 WBS Element2: .14 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: CASX22014R Functional Area: 572R Appropriation: 8014/150122 Funded: \$105.18 Accounting Info: 72ER11/6100.2550/72/FC000000/804911.02.05.2393.14/ 000/2550/72/CASX22014R/572R/8014/150122/67/70 Cost Center: 72ER11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 804911.02.05.2393.14 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: CASX22014R Functional Area: 572R Appropriation: 8014/150122 Funded: \$30,000.00 Accounting Info: 72ER11/6100.2550/72/FC000000/833011.02.05.2142.14/ 000/2550/72/CASX22014R/313R/8014/150122/68/71 Cost Center: 72ER11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 833011.02.05.2142.14 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: CASX22014R Functional Area: 313R Appropriation: 8014/150122 Funded: \$25,000.00 Accounting Info: Continued ...				

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	<p>72ER11/6100.2550/72/FC000000/869021.05.05.09.55/00 0/2550/72/CASX22015D/512F/8015/160122/69/72 Cost Center: 72ER11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 869021.05.05.09.55 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: CASX22015D Functional Area: 512F Appropriation: 8015/160122 Funded: \$37,300.00 Accounting Info: 72ER11/6100.2550/72/FC000000/871056.06.02.01.09.0/ 9/000/2550/72/EXCX22015D/733B/8015/160115/70/73 Cost Center: 72ER11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 871056.06.02.01.09.0 WBS Element2: 9 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 Funded: \$126,000.00 Accounting Info: 72EP11/6100.2550/72/FC000000/401769.06.03.01.02.1/ 0/000/2550/72/EXCX22015D/733B/8015/160115/72/75 Cost Center: 72EP11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 401769.06.03.01.02.1 WBS Element2: 0 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 Funded: \$120,000.00 Accounting Info: 72EP11/6100.2550/72/FC000000/401769.06.03.01.02.1/ 6/000/2550/72/EXCX22015D/733B/8015/160115/73/76 Cost Center: 72EP11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 401769.06.03.01.02.1 WBS Element2: 6 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 Funded: \$11,000.00 Accounting Info: 72EP11/6100.2550/72/FC000000/401769.06.06.01.02.0/ 8/000/2550/72/EXCX22015D/733B/8015/160115/74/77 Cost Center: 72EP11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 401769.06.06.01.02.0 WBS Element2: 8 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 Funded: \$30,000.00 Accounting Info: 72EP11/6100.2550/72/FC000000/401769.06.06.01.02.3/ 3/000/2550/72/EXCX22015D/733B/8015/160115/75/78 Cost Center: 72EP11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 401769.06.06.01.02.3 WBS Element2: 3 Item Number: 000 Commitment Item: Continued ...</p>				

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	<p>2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 Funded: \$80,000.00 Accounting Info: 72EP11/6100.2550/72/FC000000/401769.06.06.01.02.2/9.02/000/2550/72/EXCX22015D/733B/8015/160115/76/79 Cost Center: 72EP11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 401769.06.06.01.02.2 WBS Element2: 9.02 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 Funded: \$10,000.00 Accounting Info: 72EP11/6100.2550/72/FC000000/747797.06.13.13.99.1/0/000/2550/72/EXPX22015D/201E/8015/160124/77/80 Cost Center: 72EP11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 747797.06.13.13.99.1 WBS Element2: 0 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXPX22015D Functional Area: 201E Appropriation: 8015/160124 Funded: \$300,000.00 Accounting Info: 72EP11/6100.2550/72/FC000000/747797.06.13.05.99.1/0/000/2550/72/EXPX22015D/201E/8015/160124/78/82 Cost Center: 72EP11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 747797.06.13.05.99.1 WBS Element2: 0 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXPX22015D Functional Area: 201E Appropriation: 8015/160124 Funded: \$42,000.00 Accounting Info: 72EA511/6100.2550/72/FC000000/845953.01.08.03/000/2550/72/EXPX22015D/806K/8015/160124/79/83 Cost Center: 72EA511 GL Account: 6100.2550 Order: FC000000 WBS Element1: 845953.01.08.03 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXPX22015D Functional Area: 806K Appropriation: 8015/160124 Funded: \$924,753.00 Accounting Info: 72EA551/6100.2550/72/FC000000/845953.01.08.03/000/2550/72/EXPX22015D/806K/8015/160124/80/84 Cost Center: 72EA551 GL Account: 6100.2550 Order: FC000000 WBS Element1: 845953.01.08.03 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXPX22015D Functional Area: 806K Appropriation: 8015/160124 Funded: \$9,247.00 Accounting Info: 72EP11/6100.2550/72/FC000000/747797.06.13.06.20.1/Continued ...</p>				

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	0/000/2550/72/EXPX22015D/201E/8015/160124/81/85 Cost Center: 72EP11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 747797.06.13.06.20.1 WBS Element2: 0 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXPX22015D Functional Area: 201E Appropriation: 8015/160124 Funded: \$10,000.00 Accounting Info: 72ER11/6100.2550/72/FC000000/934844.01.02.10.07/00 0/2550/72/EXPX22014D/055Y/8014/150124/82/86 Cost Center: 72ER11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 934844.01.02.10.07 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXPX22014D Functional Area: 055Y Appropriation: 8014/150124 Funded: \$2,500.00 Accounting Info: 72EC11/6100.2550/72/FC000000/401769.06.08.01.04.0/ 3.01/000/2550/72/EXCX22015D/733B/8015/160115/1/2 Cost Center: 72EC11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 401769.06.08.01.04.0 WBS Element2: 3.01 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 Funded: \$3,883.33 Accounting Info: 72EC11/6100.2550/72/FC000000/401769.06.08.02.04.0/ 6/000/2550/72/EXCX22015D/733B/8015/160115/2/3 Cost Center: 72EC11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 401769.06.08.02.04.0 WBS Element2: 6 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 Funded: \$14,550.00 Accounting Info: 72EC11/6100.2550/72/FC000000/411672.10.05.01/000/2 550/72/SCEX22015D/913K/8015/160120/3/4 Cost Center: 72EC11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 411672.10.05.01 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: SCEX22015D Functional Area: 913K Appropriation: 8015/160120 Funded: \$50,081.61 Accounting Info: 72EC11/6100.2550/72/FC000000/432938.11.01.05.05.0/ 2.02/000/2550/72/CASX22015D/361N/8015/160122/4/5 Cost Center: 72EC11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 432938.11.01.05.05.0 WBS Element2: 2.02 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: CASX22015D Functional Continued ...				

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	Area: 361N Appropriation: 8015/160122 Funded: \$91,000.00 Accounting Info: 72EC11/6100.2550/72/FC000000/747797.06.13.11.99.1/ 0/000/2550/72/EXPX22015D/201E/8015/160124/5/6 Cost Center: 72EC11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 747797.06.13.11.99.1 WBS Element2: 0 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXPX22015D Functional Area: 201E Appropriation: 8015/160124 Funded: \$31,716.02 Accounting Info: 72EC11/6100.2550/72/FC000000/769347.05.08.13.02.0/ 8/000/2550/72/EXCX22015D/733B/8015/160115/6/7 Cost Center: 72EC11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 769347.05.08.13.02.0 WBS Element2: 8 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 Funded: \$44,900.00 Accounting Info: 72EC11/6100.2550/72/FC000000/769347.05.08.13.02.0/ 9/000/2550/72/EXCX22015D/733B/8015/160115/7/8 Cost Center: 72EC11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 769347.05.08.13.02.0 WBS Element2: 9 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 Funded: \$33,283.33 Accounting Info: 72EC11/6100.2550/72/FC000000/769347.05.08.13.02.1/ 0/000/2550/72/EXCX22015D/733B/8015/160115/8/9 Cost Center: 72EC11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 769347.05.08.13.02.1 WBS Element2: 0 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 Funded: \$19,233.33 Accounting Info: 72EC11/6100.2550/72/FC000000/769347.05.08.13.04.0/ 1/000/2550/72/EXCX22015D/733B/8015/160115/9/10 Cost Center: 72EC11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 769347.05.08.13.04.0 WBS Element2: 1 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 Funded: \$26,200.00 Accounting Info: 72EV11/6100.2550/72/FC000000/401769.06.03.04.02.0/ 1/000/2550/72/EXCX22015D/733B/8015/160115/10/11 Continued ...				

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	Cost Center: 72EV11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 401769.06.03.04.02.0 WBS Element2: 1 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 Funded: \$93,695.14 Accounting Info: 72EC11/6100.2550/72/FC000000/769347.05.08.13.02.0/ 1/000/2550/72/EXCX22015D/733B/8015/160115/11/12 Cost Center: 72EC11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 769347.05.08.13.02.0 WBS Element2: 1 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 Funded: \$10,316.67 Accounting Info: 72EV11/6100.2550/72/FC000000/401769.06.03.07.01.0/ 1/000/2550/72/EXCX22015D/733B/8015/160115/12/13 Cost Center: 72EV11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 401769.06.03.07.01.0 WBS Element2: 1 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 Funded: \$68,150.83 Accounting Info: 72EV11/6100.2550/72/FC000000/401769.06.03.07.04.0/ 6/000/2550/72/EXCX22015D/733B/8015/160115/13/14 Cost Center: 72EV11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 401769.06.03.07.04.0 WBS Element2: 6 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 Funded: \$40,152.30 Accounting Info: 72EV11/6100.2550/72/FC000000/401769.06.04.02.02.0/ 4/000/2550/72/EXCX22015D/733B/8015/160115/14/15 Cost Center: 72EV11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 401769.06.04.02.02.0 WBS Element2: 4 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 Funded: \$28,524.47 Accounting Info: 72EV11/6100.2550/72/FC000000/401769.06.04.02.02.0/ 8/000/2550/72/EXCX22015D/733B/8015/160115/15/16 Cost Center: 72EV11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 401769.06.04.02.02.0 WBS Element2: 8 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 Continued ...				

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	<p>Funded: \$107,305.21</p> <p>Accounting Info:</p> <p>72EV11/6100.2550/72/FC000000/401769.06.04.02.02.1/5/000/2550/72/EXCX22015D/733B/8015/160115/16/17</p> <p>Cost Center: 72EV11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 401769.06.04.02.02.1 WBS Element2: 5 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115</p> <p>Funded: \$111,828.30</p> <p>Accounting Info:</p> <p>72EV11/6100.2550/72/FC000000/401769.06.04.02.02.2/6/000/2550/72/EXCX22015D/733B/8015/160115/17/18</p> <p>Cost Center: 72EV11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 401769.06.04.02.02.2 WBS Element2: 6 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115</p> <p>Funded: \$9,305.40</p> <p>Accounting Info:</p> <p>72EV11/6100.2550/72/FC000000/401769.06.04.02.02.2/7/000/2550/72/EXCX22015D/733B/8015/160115/18/19</p> <p>Cost Center: 72EV11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 401769.06.04.02.02.2 WBS Element2: 7 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115</p> <p>Funded: \$14,000.00</p> <p>Accounting Info:</p> <p>72EV11/6100.2550/72/FC000000/401769.06.04.02.02.2/8/000/2550/72/EXCX22015D/733B/8015/160115/19/20</p> <p>Cost Center: 72EV11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 401769.06.04.02.02.2 WBS Element2: 8 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115</p> <p>Funded: \$20,000.00</p> <p>Accounting Info:</p> <p>72EV11/6100.2550/72/FC000000/401769.06.06.01.02.3/1/000/2550/72/EXCX22015D/733B/8015/160115/20/21</p> <p>Cost Center: 72EV11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 401769.06.06.01.02.3 WBS Element2: 1 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115</p> <p>Funded: \$56,202.15</p> <p>Accounting Info:</p> <p>72EV11/6100.2550/72/FC000000/432938.11.01.05.01.0/2.02/000/2550/72/CASX22015D/361N/8015/160122/21/22</p> <p>Cost Center: 72EV11 GL Account: 6100.2550 Order:</p> <p>Continued ...</p>				

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	FC000000 WBS Element1: 432938.11.01.05.01.0 WBS Element2: 2.02 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: CASX22015D Functional Area: 361N Appropriation: 8015/160122 Funded: \$47,500.00 Accounting Info: 72EV11/6100.2550/72/FC000000/432938.11.01.05.01.0/ 2.03/000/2550/72/CASX22015D/361N/8015/160122/22/23 Cost Center: 72EV11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 432938.11.01.05.01.0 WBS Element2: 2.03 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: CASX22015D Functional Area: 361N Appropriation: 8015/160122 Funded: \$44,570.00 Accounting Info: 72EV11/6100.2550/72/FC000000/432938.11.01.05.05.0/ 2.02/000/2550/72/CASX22015D/361N/8015/160122/23/24 Cost Center: 72EV11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 432938.11.01.05.05.0 WBS Element2: 2.02 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: CASX22015D Functional Area: 361N Appropriation: 8015/160122 Funded: \$31,800.00 Accounting Info: 72EV11/6100.2550/72/FC000000/439432.07.03.05/000/2 550/72/EXCX22015D/761A/8015/160115/24/25 Cost Center: 72EV11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 439432.07.03.05 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 761A Appropriation: 8015/160115 Funded: \$10,580.00 Accounting Info: 72EV11/6100.2550/72/FC000000/747797.01.02.99.10/00 0/2550/72/EXPX22015D/201E/8015/160124/25/26 Cost Center: 72EV11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 747797.01.02.99.10 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXPX22015D Functional Area: 201E Appropriation: 8015/160124 Funded: \$50,000.00 Accounting Info: 72EV11/6100.2550/72/FC000000/747797.02.08.25.10/00 0/2550/72/EXPX22015D/201E/8015/160124/26/27 Cost Center: 72EV11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 747797.02.08.25.10 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXPX22015D Functional Area: 201E Appropriation: 8015/160124 Funded: \$10,000.00 Continued ...				

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	Accounting Info: 72EV11/6100.2550/72/FC000000/747797.02.08.26.10/00 0/2550/72/EXPX22015D/201E/8015/160124/27/28 Cost Center: 72EV11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 747797.02.08.26.10 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXPX22015D Functional Area: 201E Appropriation: 8015/160124 Funded: \$10,000.00 Accounting Info: 72EV11/6100.2550/72/FC000000/747797.06.13.02.99.1/ 0/000/2550/72/EXPX22015D/201E/8015/160124/28/29 Cost Center: 72EV11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 747797.06.13.02.99.1 WBS Element2: 0 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXPX22015D Functional Area: 201E Appropriation: 8015/160124 Funded: \$80,000.00 Accounting Info: 72EV11/6100.2550/72/FC000000/747797.06.13.03.99.1/ 0/000/2550/72/EXPX22015D/201E/8015/160124/29/30 Cost Center: 72EV11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 747797.06.13.03.99.1 WBS Element2: 0 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXPX22015D Functional Area: 201E Appropriation: 8015/160124 Funded: \$80,000.00 Accounting Info: 72EV11/6100.2550/72/FC000000/747797.10.02.31.10/00 0/2550/72/EXPX22015D/201E/8015/160124/30/31 Cost Center: 72EV11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 747797.10.02.31.10 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXPX22015D Functional Area: 201E Appropriation: 8015/160124 Funded: \$30,000.00 Accounting Info: 72EV11/6100.2550/72/FC000000/871056.06.04.02.02.1/ 5/000/2550/72/EXCX22015D/733B/8015/160115/31/32 Cost Center: 72EV11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 871056.06.04.02.02.1 WBS Element2: 5 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 Funded: \$8,268.20 Accounting Info: 72EV11/6100.2550/72/FC000000/871056.06.04.02.02.2/ 6/000/2550/72/EXCX22015D/733B/8015/160115/32/33 Cost Center: 72EV11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 871056.06.04.02.02.2 WBS Continued ...				

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	<p>Element2: 6 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 Funded: \$10,000.00 Accounting Info: 72SF11/6100.2550/72/FC000000/444543.02.04.04.01.0/ 3/000/2550/72/EXPX22015D/317V/8015/160124/33/34 Cost Center: 72SF11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 444543.02.04.04.01.0 WBS Element2: 3 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXPX22015D Functional Area: 317V Appropriation: 8015/160124 Funded: \$25,000.00 Accounting Info: 72KA11/6100.2550/72/FC000000/724297.80.81.05/000/2 550/72/CASX22015D/512F/8015/160122/34/35 Cost Center: 72KA11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 724297.80.81.05 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: CASX22015D Functional Area: 512F Appropriation: 8015/160122 Funded: \$650,000.00 Accounting Info: 72KA11/6100.2550/72/FC000000/401769.06.03.07.03.0/ 8/000/2550/72/EXCX22015D/733B/8015/160115/35/36 Cost Center: 72KA11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 401769.06.03.07.03.0 WBS Element2: 8 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 Funded: \$10,000.00 Accounting Info: 72KA11/6100.2550/72/FC000000/401769.06.03.07.03.0/ 7/000/2550/72/EXCX22015D/733B/8015/160115/36/37 Cost Center: 72KA11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 401769.06.03.07.03.0 WBS Element2: 7 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 Funded: \$324,000.00 Accounting Info: 72KA11/6100.2550/72/FC000000/747797.02.08.22.10/00 0/2550/72/EXPX22015D/201E/8015/160124/37/38 Cost Center: 72KA11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 747797.02.08.22.10 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXPX22015D Functional Area: 201E Appropriation: 8015/160124 Funded: \$67,000.00 Accounting Info: Continued ...</p>				

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	<p>72KA11/6100.2550/72/FC000000/747797.02.11.24.10/00 0/2550/72/EXPX22015D/201E/8015/160124/38/39 Cost Center: 72KA11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 747797.02.11.24.10 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXPX22015D Functional Area: 201E Appropriation: 8015/160124 Funded: \$9,000.00 Accounting Info: 72KA11/6100.2550/72/FC000000/869021.03.05.01.08/00 0/2550/72/CASX22015D/512F/8015/160122/39/40 Cost Center: 72KA11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 869021.03.05.01.08 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: CASX22015D Functional Area: 512F Appropriation: 8015/160122 Funded: \$16,247.00 Accounting Info: 72KA11/6100.2550/72/FC000000/609524.07.01.02.06.0/ 4/000/2550/72/EXCX22015D/733B/8015/160115/40/41 Cost Center: 72KA11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 609524.07.01.02.06.0 WBS Element2: 4 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 Funded: \$255,000.00 Accounting Info: 72KA11/6100.2550/72/FC000000/747797.10.06.27.10/00 0/2550/72/EXPX22015D/201E/8015/160124/41/42 Cost Center: 72KA11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 747797.10.06.27.10 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXPX22015D Functional Area: 201E Appropriation: 8015/160124 Funded: \$43,000.00 Accounting Info: 72KA11/6100.2550/72/FC000000/747797.02.07.22.10/00 0/2550/72/EXPX22015D/201E/8015/160124/42/43 Cost Center: 72KA11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 747797.02.07.22.10 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXPX22015D Functional Area: 201E Appropriation: 8015/160124 Funded: \$96,000.00 Accounting Info: 72KA11/6100.2550/72/FC000000/769347.05.08.24.03.0/ 5/000/2550/72/EXCX22015D/733B/8015/160115/43/44 Cost Center: 72KA11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 769347.05.08.24.03.0 WBS Element2: 5 Item Number: 000 Commitment Item: Continued ...</p>				

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	2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 Funded: \$110,000.00 Accounting Info: 72KA11/6100.2550/72/FC000000/509496.02.08.05.60/000/2550/72/SCEX22015D/728A/8015/160120/44/45 Cost Center: 72KA11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 509496.02.08.05.60 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: SCEX22015D Functional Area: 728A Appropriation: 8015/160120 Funded: \$10,000.00 Accounting Info: 72KA11/6100.2550/72/FC000000/432938.11.01.05.01.0/1/000/2550/72/CASX22015D/361N/8015/160122/45/46 Cost Center: 72KA11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 432938.11.01.05.01.0 WBS Element2: 1 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: CASX22015D Functional Area: 361N Appropriation: 8015/160122 Funded: \$300,000.00 Accounting Info: 72KA11/6100.2550/72/FC000000/048290.02.01.01.01/000/2550/72/SCEX22015D/515A/8015/160120/46/47 Cost Center: 72KA11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 048290.02.01.01.01 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: SCEX22015D Functional Area: 515A Appropriation: 8015/160120 Funded: \$600,000.00 Accounting Info: 72KA11/6100.2550/72/FC000000/203959.02.02.20.46/000/2550/72/SCEX22015D/269B/8015/160120/47/48 Cost Center: 72KA11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 203959.02.02.20.46 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: SCEX22015D Functional Area: 269B Appropriation: 8015/160120 Funded: \$21,000.00 Accounting Info: 72KA11/6100.2550/72/FC000000/203959.02.02.20.63/000/2550/72/SCEX22015D/269B/8015/160120/48/49 Cost Center: 72KA11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 203959.02.02.20.63 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: SCEX22015D Functional Area: 269B Appropriation: 8015/160120 Funded: \$20,000.00 Accounting Info: 72KA11/6100.2550/72/FC000000/203959.02.02.20.69/000 Continued ...				

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	0/2550/72/SCEX22015D/269B/8015/160120/49/50 Cost Center: 72KA11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 203959.02.02.20.69 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: SCEX22015D Functional Area: 269B Appropriation: 8015/160120 Funded: \$13,000.00 Accounting Info: 72KA11/6100.2550/72/FC000000/231402.02.01.02.61/00 0/2550/72/SCEX22015D/502A/8015/160120/50/51 Cost Center: 72KA11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 231402.02.01.02.61 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: SCEX22015D Functional Area: 502A Appropriation: 8015/160120 Funded: \$6,000.00 Accounting Info: 72KA11/6100.2550/72/FC000000/231402.02.01.02.78/00 0/2550/72/SCEX22015D/502A/8015/160120/51/52 Cost Center: 72KA11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 231402.02.01.02.78 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: SCEX22015D Functional Area: 502A Appropriation: 8015/160120 Funded: \$4,000.00 Accounting Info: 72KA11/6100.2550/72/FC000000/231402.02.01.03.12/00 0/2550/72/SCEX22015D/502A/8015/160120/52/53 Cost Center: 72KA11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 231402.02.01.03.12 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: SCEX22015D Functional Area: 502A Appropriation: 8015/160120 Funded: \$11,000.00 Accounting Info: 72KA11/6100.2550/72/FC000000/361426.04.05.03/000/2 550/72/SCEX22015D/269B/8015/160120/53/54 Cost Center: 72KA11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 361426.04.05.03 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: SCEX22015D Functional Area: 269B Appropriation: 8015/160120 Funded: \$38,000.00 Accounting Info: 72KA11/6100.2550/72/FC000000/535263.04.05/000/2550 /72/SCEX22015D/269B/8015/160120/54/55 Cost Center: 72KA11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 535263.04.05 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: SCEX22015D Functional Area: 269B Appropriation: Continued ...				

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	8015/160120 Funded: \$29,000.00 Accounting Info: 72KA11/6100.2550/72/FC000000/574542.07.05/000/2550 /72/SCEX22015D/269B/8015/160120/55/56 Cost Center: 72KA11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 574542.07.05 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: SCEX22015D Functional Area: 269B Appropriation: 8015/160120 Funded: \$4,000.00 Accounting Info: 72KA11/6100.2550/72/FC000000/811073.02.01.06.42/00 0/2550/72/SCEX22015D/515A/8015/160120/56/57 Cost Center: 72KA11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 811073.02.01.06.42 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: SCEX22015D Functional Area: 515A Appropriation: 8015/160120 Funded: \$10,000.00 Accounting Info: 72KA11/6100.2550/72/FC000000/811073.02.02.04.24/00 0/2550/72/SCEX22015D/515A/8015/160120/57/58 Cost Center: 72KA11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 811073.02.02.04.24 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: SCEX22015D Functional Area: 515A Appropriation: 8015/160120 Funded: \$12,000.00 Accounting Info: 72KA11/6100.2550/72/FC000000/811073.02.02.04.26/00 0/2550/72/SCEX22015D/515A/8015/160120/58/59 Cost Center: 72KA11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 811073.02.02.04.26 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: SCEX22015D Functional Area: 515A Appropriation: 8015/160120 Funded: \$22,000.00 Accounting Info: 72KA11/6100.2550/72/FC000000/811073.02.02.04.27/00 0/2550/72/SCEX22015D/515A/8015/160120/59/60 Cost Center: 72KA11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 811073.02.02.04.27 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: SCEX22015D Functional Area: 515A Appropriation: 8015/160120 Funded: \$8,000.00 Accounting Info: 72KA11/6100.2550/72/FC000000/811073.02.02.04.30/00 0/2550/72/SCEX22015D/515A/8015/160120/60/61 Cost Continued ...				

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	Center: 72KA11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 811073.02.02.04.30 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: SCEX22015D Functional Area: 515A Appropriation: 8015/160120 Funded: \$7,000.00 Accounting Info: 72KA11/6100.2550/72/FC000000/811073.02.02.04.39/00 0/2550/72/SCEX22015D/515A/8015/160120/61/62 Cost Center: 72KA11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 811073.02.02.04.39 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: SCEX22015D Functional Area: 515A Appropriation: 8015/160120 Funded: \$4,000.00 Accounting Info: 72KA11/6100.2550/72/FC000000/811073.02.02.04.56/00 0/2550/72/SCEX22015D/515A/8015/160120/62/63 Cost Center: 72KA11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 811073.02.02.04.56 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: SCEX22015D Functional Area: 515A Appropriation: 8015/160120 Funded: \$27,000.00 Accounting Info: 72KA11/6100.2550/72/FC000000/811073.02.02.04.78/00 0/2550/72/SCEX22015D/515A/8015/160120/63/64 Cost Center: 72KA11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 811073.02.02.04.78 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: SCEX22015D Functional Area: 515A Appropriation: 8015/160120 Funded: \$1,800.00 Accounting Info: 72KA11/6100.2550/72/FC000000/811073.02.02.04.93/00 0/2550/72/SCEX22015D/515A/8015/160120/64/65 Cost Center: 72KA11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 811073.02.02.04.93 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: SCEX22015D Functional Area: 515A Appropriation: 8015/160120 Funded: \$8,000.00 Accounting Info: 72KA11/6100.2550/72/FC000000/811073.02.02.05.02/00 0/2550/72/SCEX22015D/515A/8015/160120/65/66 Cost Center: 72KA11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 811073.02.02.05.02 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: SCEX22015D Functional Area: 515A Appropriation: 8015/160120 Continued ...				

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	Funded: \$33,000.00 Accounting Info: 72KA11/6100.2550/72/FC000000/811073.02.02.05.20/00 0/2550/72/SCEX22015D/515A/8015/160120/66/67 Cost Center: 72KA11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 811073.02.02.05.20 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: SCEX22015D Functional Area: 515A Appropriation: 8015/160120 Funded: \$2,000.00 Accounting Info: 72KA11/6100.2550/72/FC000000/811073.02.13.04.84/00 0/2550/72/SCEX22015D/515A/8015/160120/67/68 Cost Center: 72KA11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 811073.02.13.04.84 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: SCEX22015D Functional Area: 515A Appropriation: 8015/160120 Funded: \$3,000.00 Accounting Info: 72KA11/6100.2550/72/FC000000/811073.02.30.01.52/00 0/2550/72/SCEX22015D/515A/8015/160120/68/69 Cost Center: 72KA11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 811073.02.30.01.52 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: SCEX22015D Functional Area: 515A Appropriation: 8015/160120 Funded: \$10,000.00 Accounting Info: 72KA11/6100.2550/72/FC000000/828928.04.02.04.01/00 0/2550/72/SCEX22015D/401A/8015/160120/69/70 Cost Center: 72KA11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 828928.04.02.04.01 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: SCEX22015D Functional Area: 401A Appropriation: 8015/160120 Funded: \$4,000.00 Accounting Info: 72KA11/6100.2550/72/FC000000/828928.04.02.04.02/00 0/2550/72/SCEX22015D/401A/8015/160120/70/71 Cost Center: 72KA11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 828928.04.02.04.02 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: SCEX22015D Functional Area: 401A Appropriation: 8015/160120 Funded: \$40,000.00 Accounting Info: 72KA11/6100.2550/72/FC000000/828928.04.02.04.03/00 0/2550/72/SCEX22015D/401A/8015/160120/71/72 Cost Center: 72KA11 GL Account: 6100.2550 Order: Continued ...				

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	FC000000 WBS Element1: 828928.04.02.04.03 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: SCEX22015D Functional Area: 401A Appropriation: 8015/160120 Funded: \$3,000.00 Accounting Info: 72KA11/6100.2550/72/FC000000/828928.09.02.05/000/2 550/72/SCEX22015D/401A/8015/160120/72/73 Cost Center: 72KA11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 828928.09.02.05 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: SCEX22015D Functional Area: 401A Appropriation: 8015/160120 Funded: \$13,000.00 Accounting Info: 72KA11/6100.2550/72/FC000000/857464.05.05/000/2550 /72/SCEX22015D/269B/8015/160120/73/74 Cost Center: 72KA11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 857464.05.05 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: SCEX22015D Functional Area: 269B Appropriation: 8015/160120 Funded: \$44,000.00 Accounting Info: 72KA11/6100.2550/72/FC000000/857464.05.05.04.01/00 0/2550/72/SCEX22015D/269B/8015/160120/74/75 Cost Center: 72KA11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 857464.05.05.04.01 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: SCEX22015D Functional Area: 269B Appropriation: 8015/160120 Funded: \$36,000.00 Accounting Info: 72KA11/6100.2550/72/FC000000/857464.04.09.05.02/00 0/2550/72/SCEX22015D/269B/8015/160120/75/76 Cost Center: 72KA11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 857464.04.09.05.02 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: SCEX22015D Functional Area: 269B Appropriation: 8015/160120 Funded: \$11,000.00 Accounting Info: 72KA11/6100.2550/72/FC000000/857464.04.09.05.01/00 0/2550/72/SCEX22015D/269B/8015/160120/76/77 Cost Center: 72KA11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 857464.04.09.05.01 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: SCEX22015D Functional Area: 269B Appropriation: 8015/160120 Funded: \$4,000.00 Continued ...				

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	Accounting Info: 72EG11/6100.2550/72/FC000000/020920.01.06.03/000/2550/72/SPTX22015D/277J/8015/160131/77/78 Cost Center: 72EG11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 020920.01.06.03 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: SPTX22015D Functional Area: 277J Appropriation: 8015/160131 Funded: \$138.75 Accounting Info: 72ES211/6100.2550/72/FC000000/747797.06.13.06.30.1/0/000/2550/72/EXPX22015D/201E/8015/160124/78/79 Cost Center: 72ES211 GL Account: 6100.2550 Order: FC000000 WBS Element1: 747797.06.13.06.30.1 WBS Element2: 0 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXPX22015D Functional Area: 201E Appropriation: 8015/160124 Funded: \$270,000.00 Accounting Info: 72ES311/6100.2550/72/FC000000/747797.06.13.07.30.1/0/000/2550/72/EXPX22015D/201E/8015/160124/79/80 Cost Center: 72ES311 GL Account: 6100.2550 Order: FC000000 WBS Element1: 747797.06.13.07.30.1 WBS Element2: 0 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXPX22015D Functional Area: 201E Appropriation: 8015/160124 Funded: \$116,227.02 Accounting Info: 72ES411/6100.2550/72/FC000000/401769.06.03.07.02.0/1/000/2550/72/EXCX22015D/733B/8015/160115/80/81 Cost Center: 72ES411 GL Account: 6100.2550 Order: FC000000 WBS Element1: 401769.06.03.07.02.0 WBS Element2: 1 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 Funded: \$281,566.00 Accounting Info: 72ES111/6100.2550/72/FC000000/401769.06.03.07.02.0/1/000/2550/72/EXCX22015D/733B/8015/160115/81/82 Cost Center: 72ES111 GL Account: 6100.2550 Order: FC000000 WBS Element1: 401769.06.03.07.02.0 WBS Element2: 1 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 Funded: \$36,930.00 Accounting Info: 72ES611/6100.2550/72/FC000000/401769.06.01.01.25/000/2550/72/EXCX22015D/733B/8015/160115/82/83 Cost Center: 72ES611 GL Account: 6100.2550 Order: FC000000 WBS Element1: 401769.06.01.01.25 Item Continued ...				

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	Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 Funded: \$314,012.90 Accounting Info: 72ES611/6100.2550/72/FC000000/401769.06.03.06.02.1 /8/000/2550/72/EXCX22015D/733B/8015/160115/83/84 Cost Center: 72ES611 GL Account: 6100.2550 Order: FC000000 WBS Element1: 401769.06.03.06.02.1 WBS Element2: 8 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 Funded: \$29,905.00 Accounting Info: 72ES611/6100.2550/72/FC000000/747797.02.04.30.10/0 00/2550/72/EXPX22015D/201E/8015/160124/84/85 Cost Center: 72ES611 GL Account: 6100.2550 Order: FC000000 WBS Element1: 747797.02.04.30.10 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXPX22015D Functional Area: 201E Appropriation: 8015/160124 Funded: \$128,568.74 Accounting Info: 72ES411/6100.2550/72/FC000000/401769.06.03.04.02.0 /4/000/2550/72/EXCX22015D/733B/8015/160115/85/86 Cost Center: 72ES411 GL Account: 6100.2550 Order: FC000000 WBS Element1: 401769.06.03.04.02.0 WBS Element2: 4 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 Funded: \$100,000.00 Accounting Info: 72ES511/6100.2550/72/FC000000/747797.06.13.06.20.1 /0/000/2550/72/EXPX22015D/201E/8015/160124/86/87 Cost Center: 72ES511 GL Account: 6100.2550 Order: FC000000 WBS Element1: 747797.06.13.06.20.1 WBS Element2: 0 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXPX22015D Functional Area: 201E Appropriation: 8015/160124 Funded: \$14,000.00 Accounting Info: 72ES411/6100.2550/72/FC000000/401769.06.06.01.02.1 /1/000/2550/72/EXCX22015D/733B/8015/160115/87/88 Cost Center: 72ES411 GL Account: 6100.2550 Order: FC000000 WBS Element1: 401769.06.06.01.02.1 WBS Element2: 1 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 Funded: \$5,541.00 Accounting Info: Continued ...				

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JACOBS

ITEM NO. (A)	SUPPL ES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	72EA411/6100.2550/72/FC000000/581570.03.04.08/000/ 2550/72/EXCX22015D/733B/8015/160115/88/89 Cost Center: 72EA411 GL Account: 6100.2550 Order: FC000000 WBS Element1: 581570.03.04.08 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 Funded: \$100,000.00 Accounting Info: 72NA11/6100.2550/72/FC000000/833011.02.05.2131.14/ 000/2550/72/CASX22014R/313R/8014/150122/89/91 Cost Center: 72NA11 GL Account: 6100.2550 Order: FC000000 WBS Element1: 833011.02.05.2131.14 Item Number: 000 Commitment Item: 2550 Funds Center: 72 Fund: CASX22014R Functional Area: 313R Appropriation: 8014/150122 Funded: \$12,000.00				

B.3 CONTRACT PHASE-IN (FIRM-FIXED PRICE)

The total firm fixed price of all phase-in effort for this contract is \$(b) (4) covering a 60-calendar day phase-in period from **March 1, 2013** through **April 30, 2013**.

(End of clause)

B.5 CONTRACT FUNDING (NFS 1852.232-81) (JUN 1990)

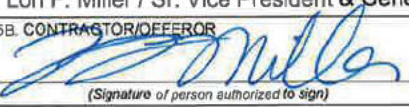
(a) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds clause, the total amount allotted by the Government to this contract is \$(b) (4). This allotment is for JSC Engineering, Technology and Science (JETS) efforts at NASA/JSC and covers the following estimated period of performance: May 1, 2013 through **December 11, 2014**.

(b) An additional amount of \$(b) (4) is obligated under this contract for payment of fee.

(End of clause)

TOTAL			
	Prior Funding Thru Mod 58	Current Action Mod 59	Total Funding Thru Mod 59
Cost Fee FFP	(b) (4)		
Total	\$229,406,430.04	\$19,416,520.86	\$248,822,950.90

OBLIGATIONS	
PR	Amount
4200532830	\$13,613,718.88
4200533086	\$142,819.28
4200532963	\$5,659,982.70
Total	\$19,416,520.86

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE		PAGE OF PAGES 1 17									
2. AMENDMENT/MODIFICATION NO. 000060		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO.									
6. ISSUED BY NASA/Johnson Space Center Attn: Lawrence Miller/BH2 2101 NASA Parkway Houston TX 77058-3696		CODE JSC		7. ADMINISTERED BY (If other than Item 6) NASA/Johnson Space Center Attn: Lawrence Miller/BH2 281.483.3916 lawrence.l.miller@nasa.gov 2101 NASA Parkway Houston TX 77058-3696									
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) JACOBS 600 WILLIAM NORTHERN BLVD TULLAHOMA TN 37388-4729		(x)		9A. AMENDMENT OF SOLICITATION NO.									
CODE 07486		FACILITY CODE		9B. DATED (SEE ITEM 11)									
		x		10A. MODIFICATION OF CONTRACT/ORDER NO. NNJ13HA01C									
				10B. DATED (SEE ITEM 13) 02/08/2013									
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS													
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended. <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.													
12. ACCOUNTING AND APPROPRIATION DATA (If required)													
13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.													
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:10%; text-align: center;">CHECK ONE</td> <td>A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.</td> </tr> <tr> <td></td> <td>B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).</td> </tr> <tr> <td style="text-align: center;">x</td> <td>C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: Mutual Agreement of the Parties</td> </tr> <tr> <td></td> <td>D. OTHER (Specify type of modification and authority)</td> </tr> </table>						CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.		B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).	x	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: Mutual Agreement of the Parties		D. OTHER (Specify type of modification and authority)
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.												
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).												
x	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: Mutual Agreement of the Parties												
	D. OTHER (Specify type of modification and authority)												
E. IMPORTANT: Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return <u>1</u> copies to the issuing office.													
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.) The purpose of this modification is to 1) recognize earned award fee for the evaluation period January 1, 2014 through September 30, 2014; 2) update Attachment J-11, Award Fee Plan Appendix 2, to include earned fee for Award Fee Period 2; 3) modify Attachment J-25, EA/KA Facility Information to change the responsible contractor of Manufacturing Facilities (Buildings 9S and 10) to Jacobs; and 4) modify clause I.1 to incorporate by reference NASA FAR Supplement clauses 1852.203-71, Requirement to Inform Employees of Whistleblower Rights, and 1852.216-90, Allowability of Legal Costs Incurred in Connection with a Whistleblower Proceeding. Award Fee available for this period: (b) (4) Award Fee earned: (b) (4) Less provisional fee paid: (b) (4) Continued ...													
Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.													
15A. NAME AND TITLE OF SIGNER (Type or print) Lon F. Miller / Sr. Vice President & General Manager			16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Christian C. Gaspard										
15B. CONTRACTOR/OFFEROR  (Signature of person authorized to sign)		15C. DATE SIGNED 11/14/14		16B. UNITED STATES OF AMERICA CHRISTIAN GASPARD (Signature of Contracting Officer)									
				16C. DATE SIGNED 11/14/2014									
NSN 7540-01-152-8070 Previous edition unusable			STANDARD FORM 30 (REV. 10-83) Prescribed by GSA FAR (48 CFR) 53.243										

NAME OF OFFEROR OR CONTRACTOR
JACOBS

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	(reference voucher #15AF) Net payment due is: (b) (4) Payment Terms: Net 30 days				

SECTION I – CONTRACT CLAUSES

I.1 LISTING OF CLAUSES INCORPORATED BY REFERENCE

Clause(s) at the beginning of this Section are incorporated by reference, with the same force and effect as if they were given in full text. Clauses incorporated by reference which require a fill-in by the Government include the text of the affected paragraph(s) only. This does not limit the clause to the affected paragraph(s). The Contractor is responsible for understanding and complying with the entire clause.

I. FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1)

<u>Clause Number</u>	<u>Date</u>	<u>Title</u>
52.202-1	JAN 2012	DEFINITIONS
52.203-3	APR 1984	GRATUITIES
52.203-5	APR 1984	COVENANT AGAINST CONTINGENT FEES
52.203-6	SEP 2006	RESTRICTIONS ON SUBCONTRACTOR SALES TO THE GOVERNMENT
52.203-7	OCT 2010	ANTI-KICKBACK PROCEDURES
52.203-8	JAN 1997	CANCELLATION, RESCISSION, AND RECOVERY OF FUNDS FOR ILLEGAL OR IMPROPER ACTIVITY
52.203-10	JAN 1997	PRICE OR FEE ADJUSTMENT FOR ILLEGAL OR IMPROPER ACTIVITY
52.203-12	OCT 2010	LIMITATION ON PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS
52.203-13	APR 2010	CONTRACTOR CODE OF BUSINESS ETHICS AND CONDUCT
52.204-2	AUG 1996	SECURITY REQUIREMENTS
52.204-4	MAY 2011	PRINTED OR COPIED DOUBLE-SIDED ON RECYCLED PAPER
52.204-7	FEB 2012	CENTRAL CONTRACTOR REGISTRATION

52.204-9	JAN 2011	PERSONAL IDENTITY VERIFICATION OF CONTRACTOR PERSONNEL
52.204-10	FEB 2012	REPORTING EXECUTIVE COMPENSATION AND FIRST-TIER SUBCONTRACT AWARDS
52.204-14	JAN 2014	SERVICE CONTRACT REPORTING REQUIREMENTS
52.209-6	DEC 2010	PROTECTING THE GOVERNMENT'S INTEREST WHEN SUBCONTRACTING WITH CONTRACTORS DEBARRED, SUSPENDED, OR PROPOSED FOR DEBARMENT
52.209-10	MAY 2012	PROHIBITION ON CONTRACTING WITH INVERTED DOMESTIC CORPORATIONS
52.210-1	APR 2011	MARKET RESEARCH
52.211-5	AUG 2000	MATERIAL REQUIREMENTS
52.211-15	APR 2008	DEFENSE PRIORITY AND ALLOCATION REQUIREMENTS
52.215-2	OCT 2010	AUDIT AND RECORDS- NEGOTIATION
52.215-8	OCT 1997	ORDER OF PRECEDENCE – UNIFORM CONTRACT FORMAT
52.215-11	AUG 2011	PRICE REDUCTION FOR DEFECTIVE COST OR PRICING DATA – MODIFICATIONS
52.215-10	OCT 1997	PRICE REDUCTION FOR DEFECTIVE COST OR PRICING DATA
52.215-13	OCT 2010	SUBCONTRACTOR COST OR PRICING DATA – MODIFICATIONS
52.215-14	OCT 2010	INTEGRITY OF UNIT PRICES
52.215-15	OCT 2010	PENSION ADJUSTMENTS AND ASSET REVERSIONS
52.215-17	OCT 1997	WAIVER OF FACILITIES CAPITAL COST OF MONEY
52.215-18	JUL 2005	REVERSION OR ADJUSTMENT OF PLANS FOR

POSTRETIREMENT BENEFITS (PRB) OTHER THAN PENSIONS

52.215-21	OCT 2010	REQUIREMENTS FOR COST OR PRICING DATA OR INFORMATION OTHER THAN COST OR PRICING DATA – MODIFICATIONS (ALTERNATE III) (OCT 1997) (c) Submit the cost portion of the proposal via the following electronic media: email and/or compact disc (CD)
52.215-22	OCT 2009	LIMITATIONS ON PASS-THROUGH CHARGES – IDENTIFICATION OF SUBCONTRACT EFFORT
52.215-23	OCT 2009	LIMITATIONS ON PASS-THROUGH CHARGES. (ALT.1) (OCT 2009)
52.216-7	JUN 2011	ALLOWABLE COST AND PAYMENT
52.216-18	OCT 1995	ORDERING
52.217-8	NOV 1999	OPTION TO EXTEND SERVICES The Contracting Officer may exercise the option by written notice to the Contractor within <u>60 calendar days</u> prior to the Option start date.
52.217-9	MAR 2000	OPTION TO EXTEND THE TERM OF THE CONTRACT (a) The Government may extend the term of this contract by written notice to the Contractor no later than <u>30 calendar days</u> prior to the Option start date, provided that the Government gives the Contractor a preliminary written notice of its intent to extend at least <u>60 calendar days</u> before the contract expires. The preliminary notice does not commit the Government to an extension. (c) The total duration of this contract, including the exercise of any options under this clause, shall not exceed <u>9 years</u> .
52.219-4	JAN 2011	NOTICE OF PRICE EVALUATION PREFERENCE FOR HUB ZONE SMALL BUSINESS CONCERNS
52.219-8	JAN 2011	UTILIZATION OF SMALL BUSINESS CONCERNS

52.219-14	NOV 2011	LIMITATIONS ON SUBCONTRACTING
52.219-16	JAN 1999	LIQUIDATED DAMAGES – SUBCONTRACTING PLAN
52.219-25	DEC 2010	SMALL DISADVANTAGED BUSINESS PARTICIPATION PROGRAM – DISADVANTAGED STATUS AND REPORTING
52.219-28	APR 2012	POST-AWARD SMALL BUSINESS PROGRAM REPRESENTATION
52.222-1	FEB 1997	NOTICE TO THE GOVERNMENT OF LABOR DISPUTES
52.222-2	JUL 1990	PAYMENT FOR OVERTIME PREMIUMS (a) The use of overtime is authorized under this contract if the overtime premium does not exceed zero or the overtime premium is paid work - -
52.222-3	JUN 2003	CONVICT LABOR
52.222-4	JUL 2005	CONTRACT WORK HOURS AND SAFETY STANDARDS ACT - OVERTIME COMPENSATION
52.222-21	FEB 1999	PROHIBITION OF SEGREGATED FACILITIES
52.222-26	MAR 2007	EQUAL OPPORTUNITY
52.222-35	SEP 2010	EQUAL OPPORTUNITY FOR SPECIAL DISABLED VETERANS, VETERANS OF THE VIETNAM ERA, AND OTHER ELIGIBLE VETERANS
52.222-36	OCT 2010	AFFIRMATIVE ACTION FOR WORKERS WITH DISABILITIES
52.222-37	SEP 2010	EMPLOYMENT REPORTS ON SPECIAL DISABLED VETERANS, VETERANS OF THE VIETNAM ERA, AND OTHER ELIGIBLE VETERANS
52.222-40	DEC 2010	NOTIFICATION OF EMPLOYEE RIGHTS UNDER THE NATIONAL LABOR RELATIONS ACT
52.222-41	NOV 2007	SERVICE CONTRACT ACT OF 1965

52.222-43	MAY 1989	FAIR LABOR STANDARDS ACT AND SERVICE CONTRACT ACT- PRICE ADJUSTMENT (MULTIPLE YEAR AND OPTION CONTRACTS)
52.222-50	FEB 2009	COMBATING TRAFFICKING IN PERSONS
52.222-54	JAN 2009	EMPLOYMENT ELIGIBILITY VERIFICATION
52.223-2	JUL 2012	AFFIRMATIVE PROCUREMENT OF BIO-BASED PRODUCTS UNDER SERVICE AND CONSTRUCTION CONTRACTS
52.223-3	JAN 1997	HAZARDOUS MATERIAL IDENTIFICATION AND MATERIAL SAFETY DATA; (ALTERNATE I) (JUL 1995) (b) None
52.223-5	MAY 2011	POLLUTION PREVENTION AND RIGHT-TO-KNOW INFORMATION; (ALTERNATE I) (MAY 2011) (ALTERNATE II) (MAY 2011)
52.223-6	MAY 2001	DRUG-FREE WORKPLACE
52.223-10	MAY 2011	WASTE REDUCTION PROGRAM
52.223-12	MAY 1995	REFRIGERATION EQUIPMENT AND AIR CONDITIONERS
52.223-15	DEC 2007	ENERGY EFFICIENCY IN ENERGY-CONSUMING PRODUCTS
52.223-17	MAY 2008	AFFIRMATIVE PROCUREMENT OF EPA-DESIGNATED ITEMS IN SERVICE AND CONSTRUCTION CONTRACTS
52.223-18	AUG 2011	ENCOURAGING CONTRACTOR POLICIES TO BAN TEXT MESSAGING WHILE DRIVING
52.223-19	MAY 2011	COMPLIANCE WITH ENVIRONMENTAL MANAGEMENT SYSTEMS
52.224-1	APR 1984	PRIVACY ACT NOTIFICATION
52.224-2	APR 1984	PRIVACY ACT
52.225-1	FEB 2009	BUY AMERICAN ACT - SUPPLIES

52.225-13	JUN 2008	RESTRICTIONS ON CERTAIN FOREIGN PURCHASES
52.227-1	DEC 2007	AUTHORIZATION AND CONSENT
52.227-2	DEC 2007	NOTICE AND ASSISTANCE REGARDING PATENT AND COPYRIGHT INFRINGEMENT
52.227-16	JUN 1987	ADDITIONAL DATA REQUIREMENTS
52.227-17	DEC 2007	RIGHTS IN DATA--SPECIAL WORKS
52.228-5	JAN 1997	INSURANCE-WORK ON A GOVERNMENT INSTALLATION
52.228-7	MAR 1996	INSURANCE – LIABILITY TO THIRD PERSONS
52.229-3	APR 2003	FEDERAL, STATE, AND LOCAL TAXES
52.230-2	MAY 2012	COST ACCOUNTING STANDARDS
52.230-6	JUN 2010	ADMINISTRATION OF COST ACCOUNTING STANDARD
52.232-8	FEB 2002	DISCOUNTS FOR PROMPT PAYMENT
52.232-9	APR 1984	LIMITATION ON WITHHOLDING OF PAYMENTS
52.232-17	OCT 2010	INTEREST
52.232-18	APR 1984	AVAILABILITY OF FUNDS
52.232-19	APR 1984	AVAILABILITY OF FUNDS FOR THE NEXT FISCAL YEAR
52.232-22	APR 1984	LIMITATION OF FUNDS
52.232-23	JAN 1986	ASSIGNMENT OF CLAIMS
52.232-25	OCT 2008	PROMPT PAYMENT; (ALTERNATE I) (FEB 2002)
52.232-33	OCT 2003	PAYMENT BY ELECTRONIC FUNDS TRANSFER – OTHER THAN CENTRAL CONTRACTOR REGISTRATION

52.233-1	JUL 2002	DISPUTES; (ALTERNATE I) (DEC 1991)
52.233-3	AUG 1996	PROTEST AFTER AWARD
52.233-3	AUG 1996	PROTEST AFTER AWARD; (ALTERNATE I) (JUN 1985)
52.233-4	OCT 2004	APPLICABLE LAW FOR BREACH OF CONTRACT CLAIM
52.237-2	APR 1984	PROTECTION OF GOVERNMENT BUILDINGS, EQUIPMENT, AND VEGETATION
52.237-3	JAN 1991	CONTINUITY OF SERVICES
52.239-1	AUG 1996	PRIVACY OR SECURITY
52.242-1	AUG 1984	NOTICE OF INTENT TO DISALLOW COSTS
52.242-3	MAY 2001	PENALTIES FOR UNALLOWABLE COSTS
52.242-13	JUL 1995	BANKRUPTCY
52.243-1	AUG 1987	CHANGES-FIXED PRICE (ALTERNATE II) (ALTERNATE V) (APR 1984)
52.243-6	APR 1984	CHANGE ORDER ACCOUNTING
52.243-7	APR 1984	NOTIFICATION OF CHANGES
52.244-2	OCT 2010	SUBCONTRACTS
52.244-5	DEC 1996	COMPETITION IN SUBCONTRACTING
52.244-6	DEC 2010	SUBCONTRACTS FOR COMMERCIAL ITEMS
52.245-1	APR 2012	GOVERNMENT PROPERTY (APR 2012)
52.245-2	MAY 2004	GOVERNMENT PROPERTY (FIXED PRICE CONTRACTS)
52.245-9	APR 2012	USE & CHARGES
52.246-24	FEB 1997	LIMITATION OF LIABILITY – HIGH VALUE ITEMS

52.246-25	FEB 1997	LIMITATION OF LIABILITY – SERVICES
52.247-63	JUN 2003	PREFERENCE FOR U.S. FLAG AIR CARRIERS
52.247-64	FEB 2006	PREFERENCE FOR PRIVATELY OWNED U.S. FLAG COMMERCIAL VESSELS
52.247-68	FEB 2006	REPORT OF SHIPMENT (RESHIP)
52.248-1	OCT 2010	VALUE ENGINEERING
52.249-2	MAY 2004	TERMINATION FOR CONVENIENCE OF THE GOVERNMENT (FIXED-PRICE)
52.249-6	MAY 2004	TERMINATION (COST-REIMBURSEMENT)
52.249-8	APR 1984	DEFAULT (FIXED-PRICE SUPPLY AND SERVICE)
52.249-14	APR 1984	EXCUSABLE DELAYS
52.251-1	APR 2012	GOVERNMENT SUPPLY SOURCES
52.253-1	JAN 1991	COMPUTER GENERATED FORMS

II. NASA FAR SUPPLEMENT (48 CFR CHAPTER 18) PROVISIONS

<u>CLAUSE NUMBER</u>	<u>DATE</u>	<u>TITLE</u>
1852.203-70	JUN 2001	DISPLAY OF INSPECTOR GENERAL HOTLINE POSTERS
1852.216-89	JUL 1997	ASSIGNMENT AND RELEASE FORMS
1852.219-74	SEP 1990	USE OF RURAL AREA SMALL BUSINESS
1852.219-75	MAY 1999	SMALL BUSINESS SUBCONTRACTING REPORTING
1852.219-77	MAY 2009	NASA MENTOR PROTÉGÉ PROGRAM
1852.219-79	MAY 2009	MENTOR REQUIREMENTS AND EVALUATION

1852.223-74	MAR 1996	DRUG AND ALCOHOL-FREE WORKPLACE
1852.228-75	OCT 1988	MINIMUM INSURANCE COVERAGE
1852.235-70	DEC 2006	CENTER FOR AEROSPACE INFORMATION
1852.237-70	DEC 1988	EMERGENCY EVACUATION PROCEDURES
1852.242-78	APR 2001	EMERGENCY MEDICAL SERVICES AND EVACUATION
1852.243-71	MAR 1997	SHARED SAVING
1852.203-71	AUG 2014	REQUIREMENT TO INFORM EMPLOYEES OF WHISTLEBLOWER RIGHTS
1852.216-90	AUG 2014	ALLOWABILITY OF LEGAL COSTS INCURRED IN CONNECTION WITH A WHISTLEBLOWER PROCEEDING

(End of Clauses Incorporated by Reference)

**JSC Engineering, Technology and Science Contract
(JETS)**

Award Fee Plan

Attachment J-11

Contract No.: NNJ13HA01C

APPENDIX 2

AWARD FEE DISTRIBUTION

Period	Dates	Max. Avail. Award Fee	Earned Award Fee
1	5/1/13 to 12/31/13	\$6,505,380	\$5,984,950
2	1/1/14 to 9/30/14	\$7,258,033	\$6,749,971
3	10/1/14 to 9/30/15	\$9,100,000	TBD
4	10/1/15 to 9/30/16	TBD	TBD
5	10/1/16 to 9/30/17	TBD	TBD
6	10/1/17 to 9/30/18	TBD	TBD
7*	10/1/18 to 9/30/19	TBD	TBD
8*	10/1/19 to 9/30/20	TBD	TBD
9*	10/1/20 to 9/30/21	TBD	TBD
10*	10/1/21 to 4/30/22	TBD	TBD

The maximum award fee available for each period is based upon the condition that NASA authorizes the dollar amount of work as identified in B.4 Estimated Cost and Award Fee. JETS and NASA shall confirm that the Award Fee pool is appropriate for the work authorized for the current Award Fee Period and shall adjust the Award Fee allocations as appropriate at the end of the award fee period minus thirty days before each Award Fee period end-date. JETS shall maintain a log of work authorized during the Award Fee period and shall submit that log to JSC approximately at the end of the award fee period minus thirty days prior to award fee period end-dates noted in the Award Fee Distribution.

Note: These amounts are based upon current work authorized as of February 3, 2014. It is anticipated that as additional work is added and/or deleted, then the out periods will be adjusted at or near the end of the award fee period.

* These periods are only applicable if Option 1 and 2 are exercised.

JSC Engineering, Technology, and Science Contract

EA/KA Facility Information

ATTACHMENT J-25

EA/KA Facility Information

EA/KA Facility Information contains applicable information related to laboratories and facilities associated with JETS requirements. The contractor may be directed through Task Orders to provide maintenance, operations, testing, or production for and with the dedicated laboratory equipment in these and other facilities.

Definitions

Operational Readiness definitions are included here because they deviate from the previously accepted definitions. They are applicable to the JETS contract M&O effort only. The expected readiness state at the beginning of the contract is given in the attached table.

1. Mothball Operational Readiness

Facility equipment is preserved and protected, but may not be in operational configuration

- a. System may not be operable
- b. Preventive maintenance is at a minimal level necessary only to preserve and protect the assets.
- c. Critical skills are not available
- d. More than 6 months to bring to Full Operational Readiness configuration

2. Standby Operational Readiness

- a. System is fully operable
- b. Preventive maintenance is at a moderate level.
- c. Many systems will require activity before use for example servicing, instrumentation calibration, readiness inspections or tests and emergency system certification.
- d. Critical skills are available, but assigned elsewhere
- e. Less than 6 months to bring to Full Operational Readiness configuration

3. Full Operational Readiness

- a. System is fully operable
- b. Preventive maintenance is at a nominal level
- c. Appropriate systems have been validated as ready
- d. Critical skills are available and assigned to facility

4. In Production

- a. System is fully operable
- b. Preventive maintenance is at a nominal level
- c. All systems have been validated as ready
- d. Critical skills are available and assigned to facility
- e. The facility is in production at the level specified

5. NASA Managed Labs.

- a. Contractor provides specified M&O tasks
- b. NASA maintains responsibility for overall operational readiness of lab or facility.

Buildings and Grounds are not part of this maintenance effort for the facilities attached. Refer to the EA/JA Memorandum of Agreement, located in the technical library, for specific responsibility descriptions.

Division	Facility Name	Bldg	Room Nos	Description	Expected Contract Start Rediness Level
ES	General Vibration Lab (GVL)	49	1001, 1003	Lab provides vibration testing (devel, qual, accept, & proto-flt) from 5 to 2000 Hz with up to 40,000 lbf. in all three orthogonal axes for any one shaker. GVL has 5 semi-permanent test beds - a 40,000 lbf horizontal, a 40,000 lbf vertical, a 18,000 lbf vertical, a 20,000 lbf horizontal, & an 8000 lbf Human Rated Test Bed. GVL also has 1 reconfigurable test bed using 2 - 4000 lbf which will also support human rated testing. Additionally, GVL also has 6 - 10,000 lbf shakers for specific usage. High speed video monitoring available upon request. Human Rated Vibration Testing capability to be online in Summer of 2010.	4
ES	<u>Manufacturing Facility</u>	9S & 10	ALL	Provides resources necessary to produce flight, ground support, & prototype hardware. Expertise in precision machining, sheet metal fabrication, welding, cleaning, coatings, soft goods, metal finishing, heat treating, models & plastics, & assembly.	<u>N/A</u>
ES	Materials Evaluation Labs (MEL)	13	146, 148, 258, 260, 266, 1006, 2000	Provides analytical capabilities used in evaluation of existing spaceflight hardware as well as in advanced materials development. Failure analyses and anomaly resolutions are the main applications, with tests that include metallographic work, material properties testing, microscopy, environmental testing, and analytical chemistry testing	4
ES	NDE Laboratory	9S	1004, 1005, 1000AA	Provides nondestructive evaluation (NDE) techniques for analyzing fabricated hardware; such as honeycomb panels, newly machined metal parts, for GFE and other spaceflight hardware. Methods include ultrasonic, radiographic, eddy current, acoustic emission, etc.	4
ES	Radiant Heat Test Facility (RHTF)	260	All	Provides capability of performing multizone, high-temperature, radiant-heat testing of large spacecraft thermal protection systems & associated structures in a controlled pressure environment to simulate reentry thermal profiles, thermal gradient, & pressure.	4

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT D CODE		PAGE OF PAGES	
				1 2	
2. AMENDMENT/MODIFICATION NO. 000061		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO. 4200534946	
6. ISSUED BY NASA/Johnson Space Center Attn: Lawrence Miller/BH2 2101 NASA Parkway Houston TX 77058-3696		CODE JSC		5. PROJECT NO. (If applicable)	
		7. ADMINISTERED BY (If other than Item 6) NASA/Johnson Space Center Attn: Lawrence Miller/BH2 281.483.3916 lawrence.l.miller@nasa.gov 2101 NASA Parkway Houston TX 77058-3696		CODE JSC	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) JACOBS 600 WILLIAM NORTHERN BLVD TULLAHOMA TN 37388-4729		(x)		9A. AMENDMENT OF SOLICITATION NO.	
				9B. DATED (SEE ITEM 11)	
		x		10A. MODIFICATION OF CONTRACT/ORDER NO. NNJ13HA01C	
				10B. DATED (SEE ITEM 13) 02/08/2013	
CODE 07486		FACILITY CODE			

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required) Net Increase: \$4,162,402.57
See Schedule

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) FAR 52.232-22, Limitation of Funds

E. IMPORTANT Contractor ☒ is not. ☐ is required to sign this document and return _____ 0 _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

The purpose of this modification is to 1) increase contract funding from \$248,822,950.90 to \$252,985,353.47, an increase of \$4,162,402.57; and 2) update contract clause B.5, Contract Funding.

Payment Terms:
Net 30 days
FOB: Destination

Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Christian C. Gaspard	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA CHRISTIAN GASPARD <small>Digitally signed by CHRISTIAN GASPARD DN: cn=US, o=US Government, ou=NSA, ou=People 19.246.10202005.001.1 signed on 2014.11.26 11:18:02 -0500</small>	16C. DATE SIGNED 11/26/2014 (Signature of Contracting Officer)

B.3 CONTRACT PHASE-IN (FIRM-FIXED PRICE)

The total firm fixed price of all phase-in effort for this contract is **(b) (4)** covering a 60-calendar day phase-in period from **March 1, 2013** through **April 30, 2013**.

(End of clause)

B.5 CONTRACT FUNDING (NFS 1852.232-81) (JUN 1990)

(a) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds clause, the total amount allotted by the Government to this contract is **(b) (4)**. This allotment is for JSC Engineering, Technology and Science (JETS) efforts at NASA/JSC and covers the following estimated period of performance: May 1, 2013 through **January 12, 2015**.

(b) An additional amount of **(b) (4)** is obligated under this contract for payment of fee.

(End of clause)

TOTAL			
	Prior Funding Thru Mod 60	Current Action Mod 61	Total Funding Thru Mod 61
Cost Fee FFP	(b) (4)		
Total	\$248,822,950.90	\$4,162,402.57	\$252,985,353.47

OBLIGATIONS	
PR	Amount
4200534946	\$4,162,402.57
Total	\$4,162,402.57

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT D CODE		PAGE OF PAGES	
				12	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.	
000062		See Block 16C			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)	
NASA/Johnson Space Center		JSC		CODE	
Attn: Lawrence Miller/BH2				JSC	
2101 NASA Parkway					
Houston TX 77058-3696					
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)		(x)		9A. AMENDMENT OF SOLICITATION NO.	
JACOBS					
600 WILLIAM NORTHERN BLVD				9B. DATED (SEE ITEM 11)	
TULLAHOMA TN 37388-4729					
		x		10A. MODIFICATION OF CONTRACT/ORDER NO.	
				NNJ13HA01C	
				10B. DATED (SEE ITEM 13)	
CODE 07486		FACILITY CODE		02/08/2013	
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS					
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended. <input type="checkbox"/> is not extended.					
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.					
12. ACCOUNTING AND APPROPRIATION DATA (If required)					
See Schedule					
Net Decrease: -\$158,008.50					
13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.					
CHECK ONE					
A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.					
B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).					
C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:					
D. OTHER (Specify type of modification and authority)					
X FAR 52.232-22, Limitation of Funds					
E. IMPORTANT Contractor <input checked="" type="checkbox"/> is not. <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.					
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)					
The purpose of this modification is to 1) decrease contract funding from \$252,985,353.47 to \$252,827,344.97, an decrease of \$158,008.50; and 2) update contract clause B.5, Contract Funding.					
Payment Terms:					
Net 30 days					
FOB: Destination					
Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.					
15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
		Christian C. Gaspard			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA	
(Signature of person authorized to sign)				CHRISTIAN GASPARD	
				16C. DATE SIGNED	
				12/1/2014	
				(Signature of Contracting Officer)	

B.3 CONTRACT PHASE-IN (FIRM-FIXED PRICE)

The total firm fixed price of all phase-in effort for this contract is \$(b) (4) covering a 60-calendar day phase-in period from March 1, 2013 through April 30, 2013.

(End of clause)

B.5 CONTRACT FUNDING (NFS 1852.232-81) (JUN 1990)

(a) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds clause, the total amount allotted by the Government to this contract is \$(b) (4). This allotment is for JSC Engineering, Technology and Science (JETS) efforts at NASA/JSC and covers the following estimated period of performance: May 1, 2013 through **January 12, 2015**.

(b) An additional amount of \$(b) (4) is obligated under this contract for payment of fee.

(End of clause)

TOTAL			
	Prior Funding Thru Mod 61	Current Action Mod 62	Total Funding Thru Mod 62
Cost Fee FFP	(b) (4)		
Total	\$252,985,353.47	(\$158,008.50)	\$252,827,344.97

DE-OBLIGATIONS				
PR #	PLI	ALI	WBS Element	Amount
4200500324	1	4	581570.01.01.01.20	\$83.29
4200505101	1	75	804911.02.05.2011.13	\$3,213.06
4200505101	1	74	804911.02.05.2022.13	\$1,957.69
4200515748	1	10	581570.01.01.01.20	\$8,452.87
4200515773	2	25	804911.02.05.1384.13	\$2,784.09
4200515774	3	61	401769.06.07.01.05	\$32,448.10
4200518944	1	15	401769.06.06.01.02.24	\$12,481.08
4200518944	1	75	401769.06.07.01.05	\$65,000.00
4200523282	1	9	804911.02.05.2354.14	\$1,272.39
4200523372	3	5	804911.02.05.2135.14	\$192.81
4200527005	1	33	804911.02.05.1551.13	\$4,763.61
4200527005	1	59	804911.02.05.2135.14	\$1,549.33
4200530115	1	9	401769.06.06.01.02.24	\$23,705.00
4200532830	1	63	804911.02.05.2135.14	\$105.18
Total				\$ (158,008.50)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT			1. CONTRACT D CODE		PAGE OF PAGES 1 2			
2. AMENDMENT/MODIFICATION NO. 000063		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO. See Schedule		5. PROJECT NO. (If applicable)		
6. ISSUED BY NASA/Johnson Space Center Attn: Lawrence Miller/BH2 2101 NASA Parkway Houston TX 77058-3696		CODE JSC		7. ADMINISTERED BY (If other than Item 6) NASA/Johnson Space Center Attn: Lawrence Miller/BH2 281.483.3916 lawrence.l.miller@nasa.gov 2101 NASA Parkway Houston TX 77058-3696		CODE JSC		
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) JACOBS 600 WILLIAM NORTHERN BLVD TULLAHOMA TN 37388-4729				(x)			9A. AMENDMENT OF SOLICITATION NO.	
							9B. DATED (SEE ITEM 11)	
				x			10A. MODIFICATION OF CONTRACT/ORDER NO. NNJ13HA01C	
							10B. DATED (SEE ITEM 13) 02/08/2013	
CODE 07486		FACILITY CODE						
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS								
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended. <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.								
12. ACCOUNTING AND APPROPRIATION DATA (If required) See Schedule				Net Increase:		\$4,241,688.29		
13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.								
CHECK ONE		A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
		B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
		C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X		D. OTHER (Specify type of modification and authority) FAR 52.232-22, Limitation of Funds						
E. IMPORTANT Contractor <input checked="" type="checkbox"/> is not. <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.								
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.) The purpose of this modification is to 1) increase contract funding from \$252,827,344.97 to \$257,069,033.26, an increase of \$4,241,688.29; and 2) update contract clause B.5, Contract Funding.								
Payment Terms: Net 30 days FOB: Destination								
Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.								
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Christian C. Gaspard				
15B. CONTRACTOR/OFFEROR _____ (Signature of person authorized to sign)		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA CHRISTIAN GASPARD <small>Digitally signed by CHRISTIAN GASPARD DN: c US, o US Government, ou NASA, ou People 53.243.12030305.000111, email=cm_cwr@nasa.gov Date: 2014.12.03 16:33:09 -0500</small>		16C. DATE SIGNED 12/3/2014		

B.3 CONTRACT PHASE-IN (FIRM-FIXED PRICE)

The total firm fixed price of all phase-in effort for this contract is **\$(b) (4)** covering a 60-calendar day phase-in period from **March 1, 2013** through **April 30, 2013**.

(End of clause)

B.5 CONTRACT FUNDING (NFS 1852.232-81) (JUN 1990)

(a) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds clause, the total amount allotted by the Government to this contract is **\$(b) (4)**. This allotment is for JSC Engineering, Technology and Science (JETS) efforts at NASA/JSC and covers the following estimated period of performance: May 1, 2013 through **January 23, 2015**.

(b) An additional amount of **\$(b) (4)** is obligated under this contract for payment of fee.

(End of clause)

TOTAL			
	Prior Funding Thru Mod 62	Current Action Mod 63	Total Funding Thru Mod 63
Cost	(b) (4)		
Fee			
FFP			
Total	\$252,827,344.97	\$4,241,688.29	\$257,069,033.26

OBLIGATIONS	
PR	Amount
4200534976	\$3,349,202.00
4200535197	\$892,486.29
Total	\$4,241,688.29

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE		PAGE OF PAGES 1 2	
2. AMENDMENT/MODIFICATION NO. 000064		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO.	
6. ISSUED BY NASA/Johnson Space Center Attn: Lawrence Miller/BH2 2101 NASA Parkway Houston TX 77058-3696		CODE JSC		7. ADMINISTERED BY (If other than Item 6) NASA/Johnson Space Center Attn: Lawrence Miller/BH2 281.483.3916 lawrence.l.miller@nasa.gov 2101 NASA Parkway Houston TX 77058-3696	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) JACOBS 600 WILLIAM NORTHERN BLVD TULLAHOMA TN 37388-4729		(x)		9A. AMENDMENT OF SOLICITATION NO.	
				9B. DATED (SEE ITEM 11)	
		x		10A. MODIFICATION OF CONTRACT/ORDER NO. NNJ13HA01C	
				10B. DATED (SEE ITEM 13) 02/08/2013	
CODE 07486		FACILITY CODE			

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)
See Schedule

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
x	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: Mutual Agreement of Both Parties
	D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor ☐ is not, ☒ is required to sign this document and return 1 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

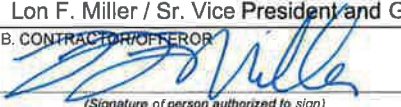
The purpose of this modification is to update section H.11 Observance of Legal Holidays, removing the Alt I part of this clause. All Changes are bar marked in the attached document.

All other terms and conditions remain unchanged.

Payment Terms:

Net 30 days

Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print) Lon F. Miller / Sr. Vice President and General Manager		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Christian C. Gaspard	
15B. CONTRACTOR/OFFEROR  (Signature of person authorized to sign)	15C. DATE SIGNED 12/17/14	16B. UNITED STATES OF AMERICA CHRISTIAN GASPARD <small>Digitally signed by CHRISTIAN GASPARD DN: cn=CHRISTIAN GASPARD, o=U.S. Government, ou=NASA, email=CHRISTIAN.GASPARD@NASA.GOV, c=US Date: 2014.12.17 10:51:04 -0500</small> (Signature of Contracting Officer)	16C. DATE SIGNED 12/17/2014

The clause below was updated in section H of the contract:

H.11 OBSERVANCE OF LEGAL HOLIDAYS (NFS 1852.242-72) (AUG 1992)
(~~ALTERNATE 1) (SEPT 1989)~~)

(a) The on-site Government personnel observe the following holidays:

New Year's Day	_____	Labor Day
Martin Luther King, Jr.'s Birthday	_____	Columbus Day
President's Day	_____	Veterans Day
Memorial Day	_____	Thanksgiving Day
Independence Day	_____	Christmas Day

Any other day designated by Federal statute, Executive order, or the President's proclamation.

(b) When any holiday falls on a Saturday, the preceding Friday is observed. When any holiday falls on a Sunday, the following Monday is observed. Observance of such days by Government personnel shall not by itself be cause for an additional period of performance or entitlement of compensation except as set forth within the contract.

~~(c) On-site personnel assigned to this contract shall not be granted access to the installation during the holidays in paragraph (a) of the clause, except as follows: the Contractor shall provide sufficient on-site personnel to perform round-the-clock requirements of critical work already in process, unless otherwise instructed by the Contracting Officer or authorized representative. If the Contractor's on-site personnel work during a holiday other than those in paragraph (a) of this clause, no form of holiday or other premium compensation shall be reimbursed as either a direct or indirect cost. However, this does not preclude reimbursement for authorized overtime work that would have been overtime regardless of the status of the day as a holiday.~~

~~(d) The Contractor shall place identical requirements, including this paragraph, in all subcontracts that require performance of work on-site, unless otherwise instructed by the Contracting Officer.~~

(End of clause)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1. CONTRACT D CODE		PAGE OF PAGES	
						1 2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
000065		See Block 16C					
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		JSC				JSC	
NASA/Johnson Space Center Attn: Lawrence Miller/BH2 2101 NASA Parkway Houston TX 77058-3696				NASA/Johnson Space Center Attn: Lawrence Miller/BH2 281.483.3916 lawrence.l.miller@nasa.gov 2101 NASA Parkway Houston TX 77058-3696			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
JACOBS 600 WILLIAM NORTHERN BLVD TULLAHOMA TN 37388-4729							
				9B. DATED (SEE ITEM 11)			
				x 10A. MODIFICATION OF CONTRACT/ORDER NO. NNJ13HA01C			
				10B. DATED (SEE ITEM 13)			
CODE 07486		FACILITY CODE		02/08/2013			
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Decrease:		-\$110,954.79	
See Schedule							
13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) FAR 52.232-22, Limitation of Funds						
E. IMPORTANT Contractor <input checked="" type="checkbox"/> is not. <input type="checkbox"/> is required to sign this document and return _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
The purpose of this modification is to 1) decrease contract funding from \$257,069,033.26 to \$256,608,078.47, an decrease of \$110,954.79; and 2) update contract clause B.5, Contract Funding.							
All other terms and conditions remain unchanged.							
Payment Terms:							
Net 30 days							
FOB: Destination							
Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				Christian C. Gaspard			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
_____ (Signature of person authorized to sign)				_____ (Signature of Contracting Officer)			

B.3 CONTRACT PHASE-IN (FIRM-FIXED PRICE)

The total firm fixed price of all phase-in effort for this contract is (b) (4) covering a 60-calendar day phase-in period from **March 1, 2013** through **April 30, 2013**.

(End of clause)

B.5 CONTRACT FUNDING (NFS 1852.232-81) (JUN 1990)

(a) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds clause, the total amount allotted by the Government to this contract is (b) (4). This allotment is for JSC Engineering, Technology and Science (JETS) efforts at NASA/JSC and covers the following estimated period of performance: May 1, 2013 through **January 23, 2015**.

(b) An additional amount of (b) (4) is obligated under this contract for payment of fee.

(End of clause)

TOTAL			
	Prior Funding Thru Mod 64	Current Action Mod 65	Total Funding Thru Mod 65
Cost Fee FFP	(b) (4)		
Total	\$257,069,033.26	(\$110,954.79)	\$256,958,078.47

DE-OBLIGATIONS				
PR #	PLI	ALI	WBS Element	Amount
4200515748	1	56	871056.06.04.01.02.06.01	\$6,330.95
4200515748	1	57	871056.06.04.01.02.06	\$5,148.74
4200527005	1	43	573754.01.01.01.40.02.01	\$50,000.00
4200527005	1	62	833011.02.05.2142.14	\$7,265.54
4200528909	1	74	747797.06.13.10.99.10	\$8,000.00
4200530115	1	52	811540.03.03.05.01	\$3,630.46
4200532830	1	23	401769.06.05.01.02.16	\$422.54
4200534946	1	67	401769.06.05.01.02.16	\$29,000.00
4200534976	1	10	401769.06.05.01.02.16	\$20.00
4200534976	1	60	170786.07.03.09.01.35	\$1,136.56
Total				(\$110,954.79)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1. CONTRACT D CODE		PAGE OF PAGES	
						1 3	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
000066		See Block 16C		See Schedule			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
		JSC				JSC	
NASA/Johnson Space Center Attn: Lawrence Miller/BH2 2101 NASA Parkway Houston TX 77058-3696				NASA/Johnson Space Center Attn:Lawrence Miller/BH2 281.483.3916 lawrence.l.miller@nasa.gov 2101 NASA Parkway Houston TX 77058-3696			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
JACOBS 600 WILLIAM NORTHERN BLVD TULLAHOMA TN 37388-4729							
				9B. DATED (SEE ITEM 11)			
				x 10A. MODIFICATION OF CONTRACT/ORDER NO. NNJ13HA01C			
				10B. DATED (SEE ITEM 13)			
CODE 07486		FACILITY CODE		02/08/2013			
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended. <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$7,625,265.85	
See Schedule							
13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
X	D. OTHER (Specify type of modification and authority) FAR 52.232-22, Limitation of Funds						
E. IMPORTANT Contractor <input checked="" type="checkbox"/> is not. <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
The purpose of this modification is to 1) increase contract funding from \$256,608,078.47 to \$264,583,344.32, an increase of \$7,625,265.85; and 2) update contract clause B.5, Contract Funding.							
All other terms and conditions remain unchanged.							
Payment Terms: Net 30 days Delivery Location Code: JSC NASA/Johnson Space Center Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				Christian C. Gaspard			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA CHRISTIAN GASPARD <small>Digitally signed by CHRISTIAN GASPARD DN: c=US, o=U.S. Government, ou=NASA, ou=People, ou=2342, cn=CHRISTIAN GASPARD, email=CHRISTIAN.GASPARD@NASA.GOV, Date: 2015.01.09 10:21:22 -0500</small>		16C. DATE SIGNED	
(Signature of person authorized to sign)				(Signature of Contracting Officer)		01/09/2015	

NAME OF OFFEROR OR CONTRACTOR
JACOBS

ITEM NO. (A)	SUPPL ES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	2101 NASA Parkway Houston TX 77058-3696 USA FOB: Destination				

B.3 CONTRACT PHASE-IN (FIRM-FIXED PRICE)

The total firm fixed price of all phase-in effort for this contract is \$(b) (4) covering a 60-calendar day phase-in period from **March 1, 2013** through **April 30, 2013**.

(End of clause)

B.5 CONTRACT FUNDING (NFS 1852.232-81) (JUN 1990)

(a) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds clause, the total amount allotted by the Government to this contract is \$(b) (4). This allotment is for JSC Engineering, Technology and Science (JETS) efforts at NASA/JSC and covers the following estimated period of performance: May 1, 2013 through **February 12, 2015**.

(b) An additional amount of \$(b) (4) is obligated under this contract for payment of fee.

(End of clause)

TOTAL			
	Prior Funding Thru Mod 65	Current Action Mod 66	Total Funding Thru Mod 66
Cost Fee FFP	(b) (4)		
Total	\$256,958,078.47	\$7,625,265.85	\$264,583,344.32

OBLIGATIONS	
PR	Amount
4200537897	\$1,163,309.28
4200537824	\$1,745,992.32
4200537895	\$4,715,964.25
Total	\$7,625,265.85

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT D CODE		PAGE OF PAGES 1 3	
2. AMENDMENT/MODIFICATION NO. 000067		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO. See Schedule	
6. ISSUED BY NASA/Johnson Space Center Attn: Lawrence Miller/BH2 2101 NASA Parkway Houston TX 77058-3696		CODE JSC		5. PROJECT NO. (If applicable)	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) JACOBS 600 WILLIAM NORTHERN BLVD TULLAHOMA TN 37388-4729		(x)		7. ADMINISTERED BY (If other than Item 6) NASA/Johnson Space Center Attn: Lawrence Miller/BH2 281.483.3916 lawrence.l.miller@nasa.gov 2101 NASA Parkway Houston TX 77058-3696	
CODE 07486		FACILITY CODE		9A. AMENDMENT OF SOLICITATION NO.	
				9B. DATED (SEE ITEM 11)	
		x		10A. MODIFICATION OF CONTRACT/ORDER NO. NNJ13HA01C	
				10B. DATED (SEE ITEM 13) 02/08/2013	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required) Net Increase: \$29,567,562.00

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) FAR 52.232-22, Limitation of Funds

E. IMPORTANT Contractor ☒ is not. ☐ is required to sign this document and return _____ 0 _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

The purpose of this modification is to 1) increase contract funding from \$264,583,344.32 to \$294,150,906.32, an increase of \$29,567,562.00; 2) update contract estimated cost and award fee; and 3) update contract clauses B.4, Estimated Cost and Award Fee and B.5, Contract Funding. See additional pages.

Payment Terms:

Net 30 days

FOB: Destination

Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Christian C. Gaspard	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA CHRISTIAN GASPARD <small>(Signature of Contracting Officer)</small>	16C. DATE SIGNED 2/2/2015

B.3 CONTRACT PHASE-IN (FIRM-FIXED PRICE)

The total firm fixed price of all phase-in effort for this contract is **(b) (4)** covering a 60-calendar day phase-in period from March 1, 2013 through April 30, 2013.

(End of clause)

B.4 ESTIMATED COST AND AWARD FEE (NFS 1852.216-85) (SEPT 1993)

(a) The estimated cost of this contract is **(b) (4)** The maximum available fee, excluding base fee, if any is **(b) (4)** The base fee is **(b) (4)** Total estimated cost and maximum fee is \$366,439,044.03.

(End of clause)

B.5 CONTRACT FUNDING (NFS 1852.232-81) (JUN 1990) (Applicable to Cost-Reimbursement Only)

(a) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds clause, the total amount allotted by the Government to this contract is **\$ (b) (4)**. This allotment is for JSC Engineering, Technology and Science (JETS) efforts at NASA/JSC and covers the following estimated period of performance: May 1, 2013 through **February 12, 2015**.

(b) An additional amount of **\$ (b) (4)** is obligated under this contract for payment of fee.

(End of clause)

Funding Recapitulation (for administrative purposes only)

	Prior Funding Thru	Current Action	Total Funding Thru
	Mod 66	Mod 67	Mod 67
Cost	(b) (4)		
Fee			
Total	\$264,233,344.32	\$29,567,562.00	\$293,800,906.32

OBLIGATIONS		DE-OBLIGATIONS				
PR	Amount	PR #	PLI	ALI	WBS Element	Amount
4200540272	\$7,846,592.53	4200515748	1	17	401769.06.04.03.02.01	\$5,212.22
4200540277	\$6,954,867.22	4200518944	1	15	401769.06.06.01.02.24	\$95.29
4200540303	\$14,905,565.25	4200523324	2	27	833011.02.05.2396.14	\$14,110.36
		4200527005	1	36	804911.02.05.2300.14	\$9,252.41
Total	\$29,707,025.00	4200527009	3	10	401769.06.04.03.02.01	\$47,000.00
		4200527005	1	63	833011.02.05.2396.14	\$21,558.98
		4200532830	1	74	747797.06.13.05.99.10	\$9,840.00
		4200534946	1	29	760231.01.81.62.10	\$12,500.00
		4200537824	1	45	609524.09.03.03.08.34.11	\$19,893.74
					Total	\$139,463.00

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT D CODE		PAGE OF PAGES 1 2	
2. AMENDMENT/MODIFICATION NO. 000068		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO.	
6. ISSUED BY NASA/Johnson Space Center Attn: Lawrence Miller/BH2 2101 NASA Parkway Houston TX 77058-3696		CODE JSC		5. PROJECT NO. (If applicable)	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) JACOBS 600 WILLIAM NORTHERN BLVD TULLAHOMA TN 37388-4729		(x)		7. ADMINISTERED BY (If other than Item 6) NASA/Johnson Space Center Attn: Lawrence Miller/BH2 281.483.3916 lawrence.l.miller@nasa.gov 2101 NASA Parkway Houston TX 77058-3696	
CODE 07486		FACILITY CODE		9A. AMENDMENT OF SOLICITATION NO.	
				9B. DATED (SEE ITEM 11)	
		x		10A. MODIFICATION OF CONTRACT/ORDER NO. NNJ13HA01C	
				10B. DATED (SEE ITEM 13) 02/08/2013	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required) Net Decrease: -\$367,528.76
See Schedule

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) FAR 52.232-22, Limitation of Funds

E. IMPORTANT Contractor ☒ is not. ☐ is required to sign this document and return _____ 0 _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

The purpose of this modification is to 1) decrease contract funding from \$294,150,906.32 to \$293,783,377.56, an decrease of \$367,528.76; 2) update contract clause B.5, Contract Funding.

Payment Terms:

Net 30 days

FOB: Destination

Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Christian C. Gaspard	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA CHRISTIAN GASPARD (Signature of Contracting Officer)	16C. DATE SIGNED 3/4/2015

B.3 CONTRACT PHASE-IN (FIRM-FIXED PRICE)

The total firm fixed price of all phase-in effort for this contract is **\$ (b) (4)** covering a 60-calendar day phase-in period from **March 1, 2013** through **April 30, 2013**.

(End of clause)

B.5 CONTRACT FUNDING (NFS 1852.232-81) (JUN 1990) (Applicable to Cost-Reimbursement Only)

(a) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds clause, the total amount allotted by the Government to this contract is **\$ (b) (4)**. This allotment is for JSC Engineering, Technology and Science (JETS) efforts at NASA/JSC and covers the following estimated period of performance: May 1, 2013 through **June 22, 2015**.

(b) An additional amount of **\$ (b) (4)** is obligated under this contract for payment of fee.

(End of clause)

DE-OBLIGATIONS				
PR #	PLI	ALI	WBS Element	Amount
4200532830	1	74	747797.06.13.05.99.10	\$16.23
4200534946	1	37	295670.01.06.02.21	\$4,900.00
4200535197	2	15	401769.06.06.01.02.29.02	\$10,000.00
4200540272	1	37	747797.06.13.06.20.10	\$17,762.53
4200540272	1	41	747797.06.13.10.99.10	\$2,000.00
4200540277	2	60	640773.02.01	\$6,000.00
4200540303	3	53	747797.06.13.06.20.10	\$40,000.00
4200540303	3	50	401769.06.06.01.02.08.02	\$43,000.00
4200540303	3	51	401769.06.06.01.02.10	\$66,000.00
4200540303	3	56	432938.11.01.05.01.02.02	\$163,000.00
4200540303	3	57	747797.06.13.10.99.10	\$2,000.00
4200540303	3	72	747797.06.12.21.10	\$12,850.00
Total				\$ (367,528.76)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT			1. CONTRACT D CODE		PAGE OF PAGES		
					12		
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
000069		See Block 16C		See Schedule			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
NASA/Johnson Space Center		JSC		NASA/Johnson Space Center		JSC	
Attn: Lawrence Miller/BH2				Attn:Lawrence Miller/BH2			
2101 NASA Parkway				281.483.3916			
Houston TX 77058-3696				lawrence.l.miller@nasa.gov			
				2101 NASA Parkway			
				Houston TX 77058-3696			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
JACOBS							
600 WILLIAM NORTHERN BLVD				9B. DATED (SEE ITEM 11)			
TULLAHOMA TN 37388-4729							
				x 10A. MODIFICATION OF CONTRACT/ORDER NO.			
				NNJ13HA01C			
				10B. DATED (SEE ITEM 13)			
CODE 07486				02/08/2013			
FACILITY CODE							
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended. <input type="checkbox"/> is not extended.							
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended , by one of the following methods: (a) By completing items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted ; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted , such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)							
See Schedule							
Net Increase: \$16,635,222.16							
13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.							
CHECK ONE							
A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.							
B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).							
C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:							
D. OTHER (Specify type of modification and authority)							
X FAR 52.232-22, Limitation of Funds							
E. IMPORTANT Contractor <input checked="" type="checkbox"/> is not. <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
The purpose of this modification is to 1) increase contract funding from \$293,783,377.56 to \$310,418,599.72, an increase of \$16,635,222.16; 2) update contract clause B.5, Contract Funding.							
Payment Terms:							
Net 30 days							
FOB: Destination							
Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				Christian C. Gaspard			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
(Signature of person authorized to sign)				CHRISTIAN GASPARD		3/4/2015	
				(Signature of Contracting Officer)			

B.3 CONTRACT PHASE-IN (FIRM-FIXED PRICE)

The total firm fixed price of all phase-in effort for this contract is **\$(b) (4)** covering a 60-calendar day phase-in period from **March 1, 2013** through **April 30, 2013**.

(End of clause)

B.5 CONTRACT FUNDING (NFS 1852.232-81) (JUN 1990) (Applicable to Cost-Reimbursement Only)

(a) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds clause, the total amount allotted by the Government to this contract is **\$(b) (4)**. This allotment is for JSC Engineering, Technology and Science (JETS) efforts at NASA/JSC and covers the following estimated period of performance: May 1, 2013 through **June 22, 2015**.

(b) An additional amount of **\$(b) (4)** is obligated under this contract for payment of fee.

(End of clause)

OBLIGATIONS	
PR	Amount
4200543489	\$4,793,544.39
4200543491	\$4,617,839.32
4200543534	\$7,223,838.45
Total	\$16,635,222.16

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT D CODE		PAGE OF PAGES	
				1 2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.	
000070		See Block 16C			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)	
NASA/Johnson Space Center		JSC		CODE	
Attn: Lawrence Miller/BH2				JSC	
2101 NASA Parkway					
Houston TX 77058-3696					
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)		(x)		9A. AMENDMENT OF SOLICITATION NO.	
JACOBS					
600 WILLIAM NORTHERN BLVD				9B. DATED (SEE ITEM 11)	
TULLAHOMA TN 37388-4729					
		x		10A. MODIFICATION OF CONTRACT/ORDER NO.	
				NNJ13HA01C	
				10B. DATED (SEE ITEM 13)	
CODE 07486		FACILITY CODE		02/08/2013	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required) Net Decrease: -\$143,671.34

See Schedule

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) FAR 52.232-22, Limitation of Funds

E. IMPORTANT Contractor ☒ is not. ☐ is required to sign this document and return _____ 0 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

The purpose of this modification is to 1) decrease contract funding from \$310,418,599.72 to \$310,274,928.38, an decrease of \$143,671.34; 2) update contract clause B.5, Contract Funding.

Payment Terms:
Net 30 days
FOB: Destination

Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)	
		Lawrence L. Miller	
15B. CONTRACTOR/OFFEROR		16B. UNITED STATES OF AMERICA	
(Signature of person authorized to sign)		lawrence.l.miller@nasa.gov Digitally signed by lawrence.l.miller@nasa.gov DN: cn=lawrence.l.miller@nasa.gov Date: 2015.04.03 15:00:09 -05'00'	
		(Signature of Contracting Officer)	
		16C. DATE SIGNED	
		4/3/2015	

B.3 CONTRACT PHASE-IN (FIRM-FIXED PRICE)

The total firm fixed price of all phase-in effort for this contract is **\$(b) (4)** covering a 60-calendar day phase-in period from **March 1, 2013** through **April 30, 2013**.

(End of clause)

B.5 CONTRACT FUNDING (NFS 1852.232-81) (JUN 1990) (Applicable to Cost-Reimbursement Only)

(a) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds clause, the total amount allotted by the Government to this contract is **\$(b) (4)**. This allotment is for JSC Engineering, Technology and Science (JETS) efforts at NASA/JSC and covers the following estimated period of performance: May 1, 2013 through **June 22, 2015**.

(b) An additional amount of **\$(b) (4)** is obligated under this contract for payment of fee.

(End of clause)

DE-OBLIGATIONS				
PR #	PLI	ALI	WBS Element	Amount
4200523372	3	5	804911.02.05.01.2135.14	\$280.48
4200527005	1	63	833011.02.05.2396.14	\$18,000.00
4200535197	2	15	401769.06.06.01.02.29.02	\$1,000.00
4200540303	3	69	747797.01.02.99.10	\$27,390.86
4200540303	3	72	747797.06.12.21.10	\$22,000.00
4200540303	3	29	609524.07.01.02.06.04	\$75,000.00
Total				\$ (143,671.34)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT D CODE		PAGE OF PAGES 1 2	
2. AMENDMENT/MODIFICATION NO. 000071		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO. See Schedule	
6. ISSUED BY NASA/Johnson Space Center Attn: Lawrence Miller/BH2 2101 NASA Parkway Houston TX 77058-3696		CODE JSC		5. PROJECT NO. (If applicable) 7. ADMINISTERED BY (If other than Item 6) NASA/Johnson Space Center Attn: Lawrence Miller/BH2 281.483.3916 lawrence.l.miller@nasa.gov 2101 NASA Parkway Houston TX 77058-3696	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) JACOBS 600 WILLIAM NORTHERN BLVD TULLAHOMA TN 37388-4729		(x)		9A. AMENDMENT OF SOLICITATION NO.	
				9B. DATED (SEE ITEM 11)	
		x		10A. MODIFICATION OF CONTRACT/ORDER NO. NNJ13HA01C	
				10B. DATED (SEE ITEM 13) 02/08/2013	
CODE 07486		FACILITY CODE			

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)
See Schedule
Net Increase: \$8,690,978.38

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) FAR 52.232-22, Limitation of Funds

E. IMPORTANT Contractor ☒ is not. ☐ is required to sign this document and return _____ 0 _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

The purpose of this modification is to 1) increase contract funding from \$310,274,928.38 to \$318,965,906.76, an increase of \$8,690,978.38; 2) update contract clause B.5, Contract Funding.

Payment Terms:
Net 30 days
FOB: Destination

Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Lawrence L. Miller	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA lawrence.l.miller@nasa.gov <small>Digitally signed by lawrence.l.miller@nasa.gov DN: cn=lawrence.l.miller@nasa.gov Date: 2015.04.03 15:20:15 -0500</small> (Signature of Contracting Officer)	16C. DATE SIGNED 4/3/2015

B.3 CONTRACT PHASE-IN (FIRM-FIXED PRICE)

The total firm fixed price of all phase-in effort for this contract is **\$(b) (4)** covering a 60-calendar day phase-in period from **March 1, 2013** through **April 30, 2013**.

(End of clause)

B.5 CONTRACT FUNDING (NFS 1852.232-81) (JUN 1990) (Applicable to Cost-Reimbursement Only)

(a) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds clause, the total amount allotted by the Government to this contract is **\$(b) (4)**. This allotment is for JSC Engineering, Technology and Science (JETS) efforts at NASA/JSC and covers the following estimated period of performance: May 1, 2013 through **July 14, 2015**.

(b) An additional amount of **\$(b) (4)** is obligated under this contract for payment of fee.

(End of clause)

OBLIGATIONS	
PR	Amount
4200546632	\$1,709,420.81
4200546701	\$5,135,491.13
4200546721	\$1,846,066.44
Total	\$8,690,978.38

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE		PAGE OF PAGES 1 58	
2. AMENDMENT/MODIFICATION NO. 000072		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO.	
5. PROJECT NO. (If applicable)		6. ISSUED BY NASA/Johnson Space Center Attn: Lawrence Miller/BH2 2101 NASA Parkway Houston TX 77058-3696		7. ADMINISTERED BY (If other than Item 6) NASA/Johnson Space Center Attn: Lawrence Miller/BH2 281.483.3916 lawrence.l.miller@nasa.gov 2101 NASA Parkway Houston TX 77058-3696	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) JACOBS 600 WILLIAM NORTHERN BLVD TULLAHOMA TN 37388-4729		9A. AMENDMENT OF SOLICITATION NO. (x)		9B. DATED (SEE ITEM 11)	
10A. MODIFICATION OF CONTRACT/ORDER NO. NNJ13HA01C		10B. DATED (SEE ITEM 13) 02/08/2013		11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS	
12. ACCOUNTING AND APPROPRIATION DATA (If required) See Schedule		13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.		14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.) The purpose of this modification is to 1) incorporate Attachment J-27, Mentor Protégé Agreement; and 2) delete Data Requirements Description "MGMT-06, Wage/Salary and Fringe Benefit Data" from Attachment J-02, Data Requirements List (DRL) and Data Requirements Descriptions. See additional pages.	

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)
See Schedule

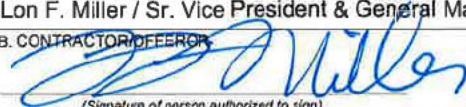
13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
X	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: Mutual Agreement of Both Parties
	D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor ☐ is not, ☒ is required to sign this document and return 1 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)
The purpose of this modification is to 1) incorporate Attachment J-27, Mentor Protégé Agreement; and 2) delete Data Requirements Description "MGMT-06, Wage/Salary and Fringe Benefit Data" from Attachment J-02, Data Requirements List (DRL) and Data Requirements Descriptions. See additional pages.

Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print) Lon F. Miller / Sr. Vice President & General Manager		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Christian C. Gaspard	
15B. CONTRACTOR/OFFEROR  (Signature of person authorized to sign)	15C. DATE SIGNED 4/15/15	16B. UNITED STATES OF AMERICA (Signature of Contracting Officer)	16C. DATE SIGNED

JSC Engineering, Technology, and Science Contract

Mentor-Protégé Agreement

Attachment J–27

A-1. Mentor-Protégé Agreement Template

Date of Submittal: 09/17/2014

Overview

Companies that have been approved as mentors in the NASA Mentor-Protégé Program and have identified a protégé must submit a signed MPA for each mentor-protégé relationship. Signed agreements must first be endorsed by the SBS at the participating Center. The agreement is then forwarded by the Center to the OSBP Associate Administrator for final approval.

Please note that for all agreements, developmental assistance costs may only be incurred after the official start date, which is the date of the incorporation of the Mentor-Protégé Agreement into the identified contractual vehicle.

The following template is provided as a guide to assist in the preparation of the NASA MPA. The elements included in the template must be addressed in the agreement. Attachments/addendums are allowed as necessary.

Agreement Information: Check the agreement type that applies and provide the information requested.

Credit ☒ _____

Award Fee Pilot Program _____

A1. Period of Performance: State the period of time (in months) over which the developmental assistance will be performed—cannot exceed 3 years (36 months).

Period of Performance	
NUMBER OF MONTHS	36
SPONSORING NASA CENTER	Johnson Space Center
CONTRACT NUMBER (IF KNOWN)	NNJ13HA01C

A2. Estimated Cost of Agreement: Provide an estimate of the cost of the developmental assistance to be provided by the mentor. Include a yearly breakdown of cost elements to be funded. Please also include the cost proposal as a separate attachment, which will detail the costs included in the Work Breakdown Structure. See the following example.

A3. Mentor Information. Provide the following.

Mentor Information	
NAME OF MENTOR COMPANY	(b) (4)
DIVISION NAME	
DUNS NUMBER	
POINT OF CONTACT NAME	
POSITION TITLE	
ADDRESS	
PHONE	
FAX	
E-MAIL	
WEB SITE	
INDUSTRY (I.E., R&D, SVC, MFG)	
CAGE CODE	
DATE OF MENTOR APPROVAL	

A4. Mentor Historical Background. In fewer than 400 words, provide a brief summary of the mentor, including a profile and its historical activities and accomplishments under the small business and the mentor-protégé programs. Indicate whether the mentor has ever been officially classified as a small business.

Mentor Historical Background
<p>Jacobs Technology Inc. is the advanced technology arm of Jacobs Engineering, one of the nation's largest engineering and technical services companies. As a winner of the prestigious NASA George M. Low Award for outstanding quality and performance, we partner with NASA Johnson Space Center to provide products and services in comprehensive engineering, design, payload development/integration, testing of spacecraft systems for human space flight, facilities management, operation and maintenance, business services, as well as scientific research and analysis. Under our recent Engineering & Sciences (ESC) NASA/JSC prime contract, the activities and accomplishments made for our small business program were extremely successful.</p> <p>(b) (4) (b) (4)</p> <p>Through our strong efforts, we were able to achieve our small business subcontracting goal of (b) (4) of total contract value, and also directed (b) (4) of our subcontracting dollars to small businesses. Another major accomplishment includes our establishment of (b) (4) (b) (4)</p>

A5. NASA Subcontract Awards to Protégé. Provide the number and total dollar amount of NASA subcontract awards made to the protégé by the mentor during the two complete fiscal years immediately preceding the date of this agreement. If none, enter zero. **Please note that the Government Fiscal Year (GFY) is from October 1 to September 30.**

NASA Subcontract Awards to Protégé

GOVERNMENT FISCAL YEAR	NUMBER (#)	DOLLAR AMOUNT (\$)
GFY- 2012	1	Ceiling Amt: (b) (4)
GFY- 2013	1	Ceiling Amt: (b) (4)

A6. Other Federal Agency (Excluding NASA) Subcontract Awards to Protégé. Provide the number and total dollar amount of all other Federal agency (excluding NASA) subcontract awards made to the protégé by the mentor during the two complete fiscal years immediately preceding the date of this agreement. If none, enter zero. **Please note that the Government Fiscal Year is from October 1 to September 30.**

Other Federal Agency (Excluding NASA) Subcontract Awards to Protégé

GOVERNMENT FISCAL YEAR	NUMBER (#)	DOLLAR AMOUNT (\$)
GFY- _____		0.00
GFY- _____		0.00

A7. Potential Subcontracts to the Protégé. Provide the anticipated number, dollar value, and type of subcontracts (both NASA and other Federal agency) to potentially be awarded to the protégé by the mentor, consistent with the extent and nature of the mentor's business.

Potential Subcontracts to the Protégé

GOVERNMENT FISCAL YEAR	NUMBER (#)	DOLLAR AMOUNT (\$)	TYPE (NASA OR OTHER FEDERAL)
2014	0	0.00	

A8. Protégé Eligibility. In fewer than 400 words, provide a statement certifying that the protégé is currently eligible to participate in the program pursuant to at least one of the criteria outlined in NASA FAR Supplement 1819.72. **Note: If the protégé is an 8(a) small business, attach a copy of the approval documentation from the U.S. Small Business Administration.**

Protégé Eligibility

(b) (4) meets multiple eligibility requirements listed under the Protege Requirements of 1819.72. (b) (4) is a (1) A Small Disadvantaged Business (SDB) (via its 8(a) Status), (2) is a Woman-Owned Small Business (WOSB), (3) is a Veteran-Owned Small Business (VOSB), and (4) is a Service-Disabled Veteran-Owned Small Business (SDVOSB).

A copy of the (b) (4) approval documentation from the U.S. Small Business Administration is attached.

A9. Protégé Information. Please provide the following:

Protégé Information

NAME OF PROTÉGÉ	(b) (4)	
ADDRESS	(b) (4)	
TELEPHONE	(b) (4)	
FAX	(b) (4)	
WEB SITE	(b) (4)	
INDUSTRY/BUS. TYPE (E.G., MFG: 80%, R&D: 20%)	CONSTRUCTION MANUFACTURING R&D SERVICE	100
YEAR ESTABLISHED	(b) (4)	
DUNS NUMBER	(b) (4)	

Percent (%) Owned by Mentor. Please note that at no time during an active agreement may a mentor own more than 10 percent of the protégé's company.

A10. Protégé's Previous Mentor-Protégé Program Participation. Provide the following information only if the protégé has previously participated in the NASA Mentor-Protégé Program. Provide a statement as a separate enclosure to this agreement that there will be no duplication under this agreement of the assistance previously provided to the protégé under a prior agreement. This must be agreed to and presented on company letterhead by both the mentor and the protégé. If the previous agreement began prior to January 2008, then no statement is required.

Prior NASA Mentor-Protégé Program Agreements

PREVIOUS MENTOR NAME

SPONSORING NASA CENTER

TYPE OF AGREEMENT

PERIOD OF PERFORMANCE OF
PREVIOUS AGREEMENT

TERMINATION DATE (IF APPLICABLE)

TERMINATION REASON (IF APPLICABLE)

A11. Developmental Assistance Program. Describe the developmental program for the protégé, specifying the type of assistance planned. Explain how this plan will address the protégé's needs and enhance its ability to perform successfully under contracts or subcontracts within NASA and other Federal agencies. For examples of types of developmental assistance, please see the NASA Mentor-Protégé guidebook, available at <http://www.osbp.nasa.gov>.

Developmental Assistance Program

(b) (4)

A12. Technical Proposal—See Attachment X

A13. Cost Proposal—See Attachment X

A14. Milestones. Establish and define milestones for providing the identified developmental assistance, and illustrate in a Gantt chart(s).

Example of a Completed Gantt Chart



Task Breakdown by Year

B. Business Development			
4.0 MARKETING PLAN—GFY20_____			
Tasks	Hours	Cost	Total Cost
3.0 QUALITY MANAGEMENT			
3.1 ISO 9000 Assessment			
3.2 ISO 9000 Training			
4.0 MARKETING PLAN			
4.1 Develop Marketing Plan			
4.2 Implement Plan			
5.0 WEB DESIGN			
5.1 Assessment			
5.2 Develop Architecture			
5.3 Implement New Enhancements			
TOTAL COST			

Year One

B. Business Development			
4.0 MARKETING PLAN—GFY20_____			
Labor Categories	Rate	Hours	Total Cost
Subcontractor Administrator			
Manager			
DIRECT LABOR SUBTOTAL			
Indirect Costs			
Other Direct Costs			
HBCU/MI/PTAC/SBDC			
TOTAL COST			

Year Two

B. Business Development			
4.0 MARKETING PLAN—GFY20_____			
Labor Categories	Rate	Hours	Total Cost
Subcontractor Administrator			
Manager			
DIRECT LABOR SUBTOTAL			
Indirect Costs			
Other Direct Costs			
HBCU/MI/PTAC/SBDC			
TOTAL COST			

A15. Metrics. The success of the MPA is measured on a 6-month basis by a system of metrics designed to ensure continued pursuit and completion of the milestones outlined in the agreement, achievement of technology transfers, and attainment of contract awards and revenue. In addition to the developmental assistance plan, provide factors to assess the protégé's developmental progress under the agreement. Metrics may include the following quantitative measures for the success of this agreement:

- ▶ The planned tasks started and completed on time;
- ▶ The development initiatives on/behind schedule;
- ▶ The number of in-progress and completed certifications;
- ▶ The number and value of NASA prime/subcontracts and other Federal agency prime/subcontracts awarded to the protégé;
- ▶ The protégé's annual revenue;
- ▶ The protégé's employee base; and
- ▶ The timeliness of report submissions.

A16. Value of the Mentor-Protégé Agreement. In fewer than 400 words, provide a summary of the value of this agreement as to how it will support the NASA mission(s), increase the protégé's ability to participate in NASA, Federal, and/or commercial contracts and subcontracts, and increase small business subcontracting opportunities in industry categories where eligible protégés or other small business categories are not dominant in the mentor's vendor base.

Value of the Mentor-Protégé Agreement

(b) (4)

A17. Termination Procedures (Mentor).

Voluntary: Explain the procedures to be used by the mentor to notify the protégé of intent to withdraw from the agreement. Notification to the protégé must be in writing and must be received by the protégé at least 30 days prior to withdrawal by the mentor. Mentors may voluntarily terminate the MPA only if they wish to withdraw all participation under all agreements in the NASA program as a mentor.

For Cause: Describe the procedures under which the mentor may elect to terminate the MPA for cause, which include the following:

- ▶ The protégé must be furnished written notice by the mentor of the proposed termination, which states the specific reasons for such action. Notification to the protégé must be made at least 30 days prior to the effective date of the proposed termination.
- ▶ The protégé has 30 days to respond to the proposed termination. The protégé may rebut any statements/claims it believes to be incorrect and may offer a remedy if necessary.
- ▶ Upon consideration of the protégé's response, the mentor must either withdraw the notice of proposed termination and continue in the agreement or issue a notice of termination.


The decision of the mentor regarding termination for cause, if conforming with the requirements of this section, shall be final.

A18. Voluntary Termination Procedures (Protégé). Describe procedures for the protégé to notify the mentor of the protégé's intent to voluntarily terminate the MPA. Notification to the mentor must be made in writing at least 30 days prior to termination. The mentor is allowed to respond within that 30-day period. If a response is received within that window, then 30 days from the date of the mentor's response letter is the official date of termination. If no response is received from the mentor, the date proposed by the protégé to terminate the agreement will be considered the official termination date.

A19. Mentor Point of Contact (POC). All correspondence and inquiries regarding the NASA MPA will be addressed to the points of contact indicated below.

Mentor Point of Contact (POC)	
NAME	(b) (4)
TITLE	
ADDRESS	
TELEPHONE/EXT.	
FAX	
E-MAIL	

A20. Protégé Point of Contact (POC)

Protégé Point of Contact (POC)	
NAME	
TITLE	
ADDRESS	
TELEPHONE/EXT.	
FAX	
E-MAIL	

A21. Procurement Contracting Officer (PCO)

Procurement Contracting Officer (PCO)	
NAME	Chris Gaspard
TITLE	Contracting Officer
ADDRESS	2101 NASA Parkway, Houston, TX 77058
TELEPHONE/EXT.	281-483-0034
FAX	
E-MAIL	chris.gaspard@nasa.gov

A22. Cognizant Small Business Specialist (SBS), NASA Center

Cognizant Small Business Specialist (SBS), NASA Center	
NAME	Charles Williams, Johnson Space Center
TITLE	Small Business Specialist (SBS)
ADDRESS	2101 NASA Parkway, Houston, TX 77058
TELEPHONE/EXT.	281-483-5933
FAX	
E-MAIL	charles.t.williams @nasa.gov

A23. Contracting Officer's Representative (COR)

Contracting Officer's Representative (COR)	
NAME	Jeff Dutton
TITLE	Contracting Officer Representative (COR)
ADDRESS	2101 NASA Parkway, Houston, TX 77058
TELEPHONE/EXT.	281-483-2841
FAX	
E-MAIL	jeff.dutton-1@nasa.gov

A24. Mentor Firm's Cognizant Administrative Contracting Officer (ACO)

Mentor Firm's Cognizant Administrative Contracting Officer (ACO)	
NAME	Michelle L. Nevins
TITLE	Administrative Contracting Officer - DCMA NASA Product Operations/JSC
ADDRESS	Federal Reserve Bank
TELEPHONE/EXT.	713-571-0217 Ext. 132
FAX	
E-MAIL	michelle.nevins@dcma.mil

A25. Mentor Firm's Cognizant NASA Contract Administration Office (CAO)

Mentor Firm's Cognizant NASA Contract Administration Office (CAO)	
NAME	N/A
TITLE	
ADDRESS	
TELEPHONE/EXT.	
FAX	
E-MAIL	

A26. Protégé Firm's Cognizant NASA Contract Administration Office (CAO)

Mentor Firm's Cognizant NASA Contract Administration Office (CAO)	
NAME	N/A
TITLE	
ADDRESS	
TELEPHONE/EXT.	
FAX	
E-MAIL	

A27. Report and Review Requirements. Attach a statement from both the mentor and the protégé indicating their willingness to comply with the program's reporting and review requirements as specified in the NASA FAR Supplement 1819.72. The protégé must include in its statement an affirmation that it will provide data on employment, annual revenues, NASA prime and subcontracts, and other Federal agency prime and subcontracts for the two 12-month periods following the end of the agreement.

A28. Needs Assessment. Include with the agreement a statement that the mentor performed a needs assessment with the protégé to determine applicable developmental assistance to be performed, as required by the NASA FAR Supplement 1819.72.

A29. Signatures. The mentor and the protégé must sign and date this agreement. Titles of all signatories must be included. (Please note that a mentor cannot require a small business concern to enter into a Mentor-Protégé Agreement as a condition for award of a contract.)

Jacobs Technology

MENTOR

Lon F. Miller

PRINTED NAME

SIGNATURE

Sr. Vice President and General Manager

TITLE

09/17/2014

DATE

(b) (4)

PROTÉGÉ

(b) (4)

PRINTED NAME

(b) (4)

SIGNATURE

SVP/Chief Operations Officer

TITLE

09/17/2014

DATE

Enclosure 1:

Cost Proposal

(Insert Chart)

(A8) - SBA 8(a) APPROVAL DOCUMENTATION LETTER



U.S. SMALL BUSINESS ADMINISTRATION
WASHINGTON, D.C. 20416

April 12, 2008

(b) (4)

Dear (b) (4)

Congratulations! Your firm has been certified as a Participant in the U.S. Small Business Administration's (SBA) 8(a) Business Development Program. Your nine (9) year program term begins on the date of this letter.

Additionally, your firm has been certified as a Small Disadvantaged Business (SDB) in the Federal Government's SDB program. Your term of participation in the SDB program is concurrent with your 8(a) Business Development certification.

During participation in the 8(a) Business Development Program, you will receive business development assistance from an assigned Business Development Specialist in the (b) (4)

(b) (4) The phone number is (b) (4) The District office will also be able to provide you with information on the SDB program and its benefits.

Your firm will become eligible to receive 8(a) Business Development contracts after you submit a business plan using SBA Form 1010C and receive SBA's approval of the plan. We are sending a copy of this certification letter to the SBA North Florida District Office. That office will send you the business plan form.

SBA requires that the 8(a) participant's President or Chief Executive Officer sign a Participation Agreement to show that he or she understands the conditions of 8(a) program participation. Please read the Agreement carefully, sign and date one copy and return it to the SBA North Florida District Office at the address shown in the third paragraph above. The second copy is for your records.

Even though your firm's approved North American Industry Classification System (NAICS) Code is 541618, your firm may be awarded contracts under other NAICS Codes, as long as the firm is qualified to perform the required service or task. In this regard, please note that contracts awarded under 8(a) Business Development Program authority generally result from the self-marketing efforts of participating firms. While your

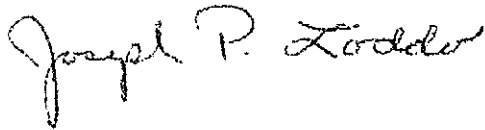
firm's acceptance into the 8(a) Business Development Program is not a guarantee of contract support, SBA will make every effort to assist you in your marketing efforts.

During your participation in the 8(a) Business Development Program, I encourage you to take advantage of the Mentor-Protégé Program, the Federal Surplus Property Program and the extensive management and technical training available to you. Your local SBA District Office can provide additional information on these programs.

You should consider setting up a merchant account with a credit card company, which will give you the ability to accept credit card orders for your goods and services from over 1,000 Federal buying offices.

I welcome you as an 8(a) Business Development Program participant and wish you every possible success.

Sincerely,

A handwritten signature in cursive script that reads "Joseph P. Loddo". The signature is written in dark ink and is positioned above the typed name and title.

Joseph P. Loddo
Associate Administrator
Office of Business Development

PURSUANT TO 5 USC 552

PAGES 17 through 31 ARE EXEMPT FROM RELEASE IN THEIR ENTIRETY

PER FOIA EXEMPTION (b)(4)

JSC Engineering, Technology and Science Contract

Data Requirements List (DRL) and Data Requirements Descriptions (DRD)

Attachment J-2

**Data Requirements List
and
Data Requirements Descriptions
(Based on JSC-STD-123)**

The following pages set out the documentation requirements of this contract, starting with a DRL, which is an index to the DRDs. Each DRD prescribes the required data product content, schedule, type, and other particulars for specific data submission requirements.

Subject to the Clause 52.227-14, Rights in Data - General, this document sets forth the data requirements in each Data Requirements Description (DRD) and shall govern that data required for this contract. The contractor shall furnish data defined by the DRDs listed on the Data Requirements List (DRL) by category of data. Such data shall be prepared, maintained, and delivered to NASA in accordance with the requirements set forth within this document. In cases where data requirements are covered by a Federal Acquisition Regulation (FAR) or NASA FAR Supplement (NFS) regulation or clause, the regulation will take precedence over this document, per FAR 52.215.33. NASA-Owned/Contractor-Held records shall be managed by the Contractor in accordance with Title 36 of the code of Federal Regulations, Chapter XII B, Records Management, and NMI 1440.6, NASA Records Management Program. The records shall be organized in accordance with the instructions in NHB 1442.1, NASA Uniform Files index, as applicable. The contractor shall disposition records and non-records in accordance with NHB 1441.1, NASA Retention Schedules, which has been approved by NASA and the National Archives and Records Administration (NARA). All questions on records management issues shall be directed through the Contracting Officer to the JSC Records Management Officer.

Documents included as applicable documents in the data requirements form a part of this document to the extent specified herein. References to documents other than applicable documents in the data requirements of this document may sometimes be utilized. These do not constitute a contractual obligation on the contractor. They are to be used only as a possible example or to provide related information to assist the contractor in developing a response to that particular data requirement.

DESCRIPTION

This document identifies and defines the requirements and data types for information and data required under this contract.

The Data Requirement Descriptions (DRDs), along with the Data Requirements List (DRL), define, by an individual Data Requirement, the information and data required for each deliverable document.

The data types are used to identify the approval and control required for each DRD. The Data Requirements List (DRL) is an index of all the DRDs by category and includes additional requirements for each DRD and the data types, as described below.

Documentation submitted pursuant to this clause may incorporate references to other current approved documentation, provided the references are adequate and include such identification elements as title, document number, and approval date (where applicable). However, if the pertinent information is of relatively minor size, the contractor shall incorporate the information itself, in lieu of using a reference. The contractor shall assure that any referenced information is readily available to appropriate users of the submitted document.

NUMBER OF COPIES AND DISTRIBUTION REQUIREMENTS

The contractor shall submit data product required in each DRD in compliance with the standard distribution list shown in Block 8 of the DRLs. Additional distribution shall be made as directed, in writing, by the Contracting Officer. The number of copies required will not exceed the limits set forth in Clause 1852.208-81, Restrictions on Printing and Duplicating, without prior Contracting Officer approval. Electronic Data Transmittal Forms will be used to confirm delivery of electronically resident DRD deliverables.

ELECTRONIC FORMAT

All the data requirements shall be delivered in the format as depicted in each DRD and compatible with JSC software loads.

FURTHER EXPLANATION OF DRL

Contract Start is defined as February 1, 2013.

Block 3 – Frequency of submittal/Maintenance:

<u>Code Description</u>	<u>Code Description</u>	<u>Code Description</u>
AD As Directed	DA Daily	RD As Released
AN Annually	DD Deferred Delivery	RT One Time and Revisions as Required
AR As Required	MO Monthly	SA Semi Annually
BE Biannually	OT One Time	TY Three Per Year
BM Bimonthly	PV Per Vehicle	UR Upon Request
BW Biweekly	QU Quarterly	WK Weekly

Block 4 – As of Date- If reports are of a recurring nature, an as of date will be included in this block (cutoff date and due date: e.g., 15/1 indicated input cutoff date of 15th and due date of 1st)..

Block 5 – 1st Submittal Date

Block 6 – Copies –
a. Type

<u>Copies Type</u>	<u>Code Description</u>
E	Electronic
HC	Hard Copy

b Number – Number of copies required for each type of copy furnished.

Block 7 – Data Type

For the purpose of this clause, the following information/documentation types are applicable:

- (1) Type1 - Written approval -- Data and changes thereto requiring written approval by the NASA Office of Primary Responsibility (OPR) before formal release or implementation
- (2) Type2 - Mandatory submittal -- Data provided to NASA for coordination, information, review, and/or management control
- (3) Type3 - Submitted upon request -- Data prepared and retained under a specific contract to be made available to NASA upon request

Type 1 submissions shall be marked "TYPE 1 PRELIMINARY pending NASA approval or Type 1 APPROVED BY NASA, as appropriate." Additional special designations and deviations may be required on specific submissions in accordance with configuration management requirements.

Type 2 submissions shall be marked "TYPE 2 PRELIMINARY - RELEASE TARGET DATE, xx/xx/xx" or "TYPE 2 FINAL - NASA COMMENTS INCLUDED" or "TYPE 2 FINAL DOCUMENT," where NASA comments were not received.

NOTE: Documents submitted under this clause, even though directly (Type 1) or implicitly (Type 2) approved by NASA, shall not take precedence over the specifications as set out in Section C, Statement of Work.

The contractor shall normally deliver a complete revised Type 1 or Type 2 data requirement with NASA comments incorporated within 45 days of receipt of comments.

Type 3 submissions shall be marked "TYPE 3 DOCUMENT - FOR INFORMATION, SURVEILLANCE, REVIEW OR MANAGEMENT CONTROL".

Block 8 – Distribution

All electronic copies delivered to DDMS will be automatically distributed.

Block 9 – Remarks: Additional requirements, clarification or amplification of requirements from other blocks.

DRD GROUPS:

The DRDs are grouped into categories for clarity of purpose and ease of use. The groups are defined as follows:

- MGMT = Management – these documents address contract management processes and employee compensation
- IT = Information Technology – these documents address IT requirements.
- BP = Business Processes – these documents address non technical business processes.
- SMA = Safety and Mission Assurance – these documents include safety assessments, problem reporting, parts assessments and requirements. They also include parts, safety, quality, reliability, and configuration management plans.
- RV = Planning, requirements, and verification documentation – these are project planning documents, systems requirements, specifications, and verification.
- SW = Software Specific – these documents are software requirements, design, development, and testing documents.
- TD = Technical Products and Data Packages – these documents capture the results of design reviews, testing, and analysis.

Table 1 - DRL Reference

NUMBER	TITLE
SECTION 1.0	Contract Management
MGMT-01	Contract Management Plan
MGMT-02	Work Breakdown Structure and Dictionary
MGMT-03	Contract Management Report
MGMT-04	Staffing and Critical Skills Plan
MGMT-05	Contract Phase-In Plan
MGMT-06	Reserved
MGMT-07	Labor Relations Plan
MGMT-08	Notification of Potential Labor Dispute and Contingency Strike Plan
MGMT-09	Total Compensation Plan
MGMT-10	External Customer Plan
MGMT-11	Technology, Innovation, and Process Improvement Plan
MGMT-12	Organizational Conflict of Interest Mitigation Plan
MGMT-13	Small Business Subcontracting Plan and Reports
MGMT-14	Contract Closeout Plan
SECTION 1.1	Information Technology
IT-01	Information Technology (IT) Capital Planning and Investment Control (CPIC)
IT-02	Information Technology (IT) Security Plan and Reports
SECTION 1.2	Business Processes
BP-01	NASA Contractor Financial Management Report
BP-02	Data Management Plan
BP-03	Flights Products Configuration Management Plan
BP-04	RESERVED
BP-05	RESERVED
BP-06	Patent Rights Retention
BP-07	Reports Required for Logistics
BP-08	RESERVED
BP-09	Government Property Management Plan
BP-10	Re-procurement Data Package
SECTION 1.3	Safety and Mission Assurance
SMA-01	Quality Plan
SMA-02	Electrical, Electronic, and Electromechanical (EEE) Parts Control Plan
SMA-03	Safety and Health Plan
SMA-04	Safety and Health Program Self Evaluation
SMA-05	Lessons Learned Program Plan and Lessons Learned
SMA-06	Problem Reporting and Corrective Action (PRACA) for the JSC Government Furnished Equipment (GFE) and Flight Products
SMA-07	Government-Industry Data Exchange Program (GIDEP) and NASA Advisory Problem Data Sharing and Utilization Program Documentation and Reporting
SECTION 2.0	Planning, Requirements, and Verification Documentation
RV-01	Project Schedule
RV-02	Regular Status Report/Summary Review
RV-03	Project Technical Requirements Specification (PTRS)

NUMBER	TITLE
RV-04	Project Requirements and Verification Document (PRVD)
RV-05	Certification and Acceptance Requirements Document (CARD)
RV-06	Interface Control Document (ICD)
RV-07	End Item Specification
RV-08	Engineering Drawings and Model Files
RV-09	Flight Projects Authorization to Proceed Record
RV-10	Flight Products Verification and Validation Plan
RV-11	Flight Products Qualification Plan
RV-12	Flight Products Qualification Test Procedures
RV-13	Flight Products Acceptance Test Procedures
RV-14	Flight Products Qualification Report
SECTION 2.1	Software Requirements and Verification Documentation
SW-01	Software Requirements Document
SW-02	Software Development Plan
SW-03	Software Design Document
SW-04	Software Code
SW-05	Software Quality Assurance Plan
SW-06	Software Test Description
SW-07	Software Test Plan
SW-08	Version Description Document (Software and/or Firmware)
SECTION 2.2	Technical Products and Data Packages
TD-01	Flight Products System Requirements Review (SRR) Data Package
TD-02	Preliminary Design Review (PDR) Data Package
TD-03	Flight Products Critical Design Review (CDR) Data Package
TD-04	Acceptance Data Package (ADP)
TD-05	Limited Life Items List
TD-06	Certification Data Package
TD-07	Flight Products User's Guide
TD-08	Engineering Analysis
TD-09	Flight Products Verification and Validation Report
TD-10	Space Station Reliability and Maintainability Predictions Report
TD-11	Test Report
TD-12	Delivery and Acceptance Report
TD-13	Government Certification Approval Request (GCAR)
TD-14	Flight Products Workmanship Specification List
TD-15	Electrical, Electronic, and Electromechanical (EEE) Parts List and Analysis Report
TD-16	Space Station Hardware Failure Modes and Effects Analysis (FMEA) and Critical Items List (CIL)
TD-17	Space Station Payload Safety Data Package
TD-18	Space Station Hazard Reports (HRs)
TD-19	Risk Assessment Executive Summary Report
TD-20	Non Conformance Record (NCR)
TD-21	Flight Products Failure Analysis Report
TD-22	Engineering Design Change Proposal

a. Title of Contract, Project, SOW, etc. JSC Engineering and Technical Services (JETS) – Unrestricted		b. Contract/RFP No. NNJ13HA01C		c. DRL Date/Mod Date (mm/dd/yyyy) 12/01/2011		
<i>SECTION 1.0 – Contract Management</i>						
1. Line item no. MGMT-01	2. DRD Title Contract Management Plan	3. Frequency RT	4. As-of-date --	5. 1st subm. date Due with Proposal	6. Copies a. Type E HC b. Number 1 1	
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Electronic copy delivered to the Design Data Management System (DDMS).		9. Remarks - Annual review required. Block 3: Update at contract start + 30 days. Revisions shall be submitted within 45 days after major changes to the content of the JETS contract.				
1. Line item no. MGMT-02	2. DRD Title Work Breakdown Structure and Dictionary	3. Frequency RT	4. As-of-date --	5. 1st subm. date Due with Proposal	6. Copies a. Type E HC b. Number 1 1	
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Electronic copy delivered to the DDMS.		9. Remarks - Annual review required. Block 3: Revisions shall be submitted within 45 days after major changes to the content of the JETS contract.				
1. Line item no. MGMT-03	2. DRD Title Contract Management Report	3. Frequency MO	4. As-of-date 30/15	5. 1st subm. date 45 days after contract start date	6. Copies a. Type E b. Number 1	
7. Data type: <input type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Electronic copy delivered to the DDMS.		9. Remarks Correction to a monthly Contract Management Report shall be identified and changes made, if applicable, in the subsequent monthly Contract Management Report.				

1. Line item no.	2. DRD Title	3. Frequency	4. As-of-date	5. 1st subm. date	6. Copies	
MGMT-04	Staffing and Critical Skills Plan	RT	--	Due with Proposal	a. Type E HC	b. Number 1 1
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Electronic copy delivered to the DDMS.		9. Remarks - Annual review required. Block 3: First update 30 days after contract start date. Subsequent revisions as required.				
1. Line item no.	2. DRD Title	3. Frequency	4. As-of-date	5. 1st subm. date	6. Copies	
MGMT-05	Contract Phase-In Plan	OT	--	Due with Proposal	a. Type E HC	b. Number 1 2
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Electronic copy delivered to the DDMS.		9. Remarks				
1. Line item no.	2. DRD Title	3. Frequency	4. As-of-date	5. 1st subm. date	6. Copies	
MGMT-06	Reserved		--		a. Type	b. Number
7. Data type: <input type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution		9. Remarks				

1. Line item no. MGMT-07	2. DRD Title Labor Relations Plan	3. Frequency RT	4. As-of-date --	5. 1st subm. date Contract start date + 30 days	6. Copies	
					a. Type E HC	b. Number 1 2
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Electronic copy delivered to the DDMS.		9. Remarks				
1. Line item no. MGMT-08	2. DRD Title Notification of Potential Labor Dispute and Contingency Strike Plan	3. Frequency AR	4. As-of-date --	5. 1st subm. date --	6. Copies	
					a. Type E HC	b. Number 1 2
7. Data type: <input type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Electronic copy delivered to the DDMS.		9. Remarks <ul style="list-style-type: none"> - A Contingency Strike Plan must be submitted at contract start and updated if there is any indication of potential labor unrest or potential picketing activity - A notification of potential labor dispute must be delivered at first indication of potential labor unrest and 45 days prior to the expiration of any Collective Bargaining Agreement (CBA). A new notification is required for every instance. - Copies of all CBA must be provided within 30 days of ratification or modification to the Contracting Officer, and Contractor Industrial Relations Officer. 				
1. Line item no. MGMT-09	2. DRD Title Total Compensation Plan	3. Frequency RT	4. As-of-date --	5. 1st subm. date Due with Proposal	6. Copies	
					a. Type E HC	b. Number 1 2
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Electronic copy delivered to the DDMS.		9. Remarks Block 3: Final submittal due at contract start.				

1. Line item no.	2. DRD Title	3. Frequency	4. As-of-date	5. 1st subm. date	6. Copies	
MGMT-10	External Customer Plan	RT	--	See Block 9	a. Type E HC	b. Number 1 2
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution 1) Electronic copy delivered to the DDMS. 2) Hard copy submitted to JSC Legal Office.		9. Remarks - Annual review required. Block 5: Initial partial submittal due with Proposal contains only data specified in the RFP. Initial complete submittal due 120 days after contract start date.				
1. Line item no.	2. DRD Title	3. Frequency	4. As-of-date	5. 1st subm. date	6. Copies	
MGMT-11	Technology, Innovations, and Process Improvement Plan	AN	See Block 9	Due with Proposal	a. Type E HC	b. Number 1 1
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Electronic copy delivered to the DDMS.		9. Remarks Block 3: First update due 60 days after contract start. Block 4: Anniversary of Contract Start + 30 days.				
1. Line item no.	2. DRD Title	3. Frequency	4. As-of-date	5. 1st subm. date	6. Copies	
MGMT-12	Organizational Conflicts of Interest (OCI) Mitigation Plan	RT	--	Due with Proposal*	a. Type E HC	b. Number 1 2
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution 1) Electronic copy delivered to the DDMS. 2) Hard copy submitted to JSC Legal Office.		9. Remarks - Annual review required. Block 3: Revisions shall be submitted within 30 days after identification of new potential OCI. Block 5: Submit along with Past Performance Volume.				
1. Line item no.	2. DRD Title	3. Frequency	4. As-of-date	5. 1st subm. date	6. Copies	
MGMT-13	Small Business Subcontracting Plan and Reports	RT	--	Due with Proposal	a. Type E HC	b. Number 1 1
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Electronic copy delivered to the DDMS.		9. Remarks - Annual review required. Block 3: Update as requested by CO. Block 7: Plan is Data Type 1; Reports are Data Type 2.				

1. Line item no. MGMT-14	2. DRD Title Contract Close-Out Plan	3. Frequency OT	4. As-of-date --	5. 1st subm. date One year prior to contract end date	6. Copies	
					a. Type E HC	b. Number 1 1
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Electronic copy delivered to the DDMS.		9. Remarks Block 5: One year prior to end date of contract, unless otherwise directed by the Contracting Officer.				
<i>SECTION 1.1 – Information Technology</i>						
1. Line item no. IT-01	2. DRD Title Information Technology (IT) Capital Planning and Investment Control (CPIC)	3. Frequency AN	4. As-of-date See Block 9	5. 1st subm. date Contract start	6. Copies	
					a. Type E	b. Number 1
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Delivered to NASA Engineering Targeted Tools (ET2) database. Notification of delivery submitted to the DDMS.		9. Remarks Block 3 & 4: Annual CPIC data call during PPBE per OCIO schedule. Execution year spend plan annually prior to Fiscal Year start.				
1. Line item no. IT-02	2. DRD Title Information Technology (IT) Security Program Plan and Reports	3. Frequency See Block 9	4. As-of-date --	5. 1st subm. date Contract start	6. Copies	
					a. Type E	b. Number 1
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Electronic copy delivered to the DDMS.		9. Remarks Block 3: One time for Plan, Annual for Reports Block 7: Plan is Data Type 1; Reports are Data Type 2				

SECTION 1.2 – Business Processes

1. Line item no.	2. DRD Title	3. Frequency	4. As-of-date	5. 1st subm. date	6. Copies	
BP-01	NASA Contractor Financial Management Report	MO	See DRD	Contract start + 30 days	a. Type E HC	b. Number 3 1
7. Data type: <input type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution		9. Remarks				
1) Electronic copy delivered to the DDMS. 2) Electronic copy submitted to LE/Contract Business Management. 3) Electronic copy submitted to LF6/Cost Accounting.		Blocks 6b & 8: A Year-end Hard Copy submitted to LE/Contract Business Manager.				
1. Line item no.	2. DRD Title	3. Frequency	4. As-of-date	5. 1st subm. date	6. Copies	
BP-02	Data Management Plan	RT	--	Contract start + 30 days	a. Type E	b. Number 1
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution		9. Remarks				
Electronic copy delivered to the DDMS.		- Annual review required. Block 3: Update as needed from annual review.				
1. Line item no.	2. DRD Title	3. Frequency	4. As-of-date	5. 1st subm. date	6. Copies	
BP-03	Flight Products Configuration Management Plan	RT		Contract start + 45 days	a. Type E	b. Number 1
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution		9. Remarks				
Electronic copy delivered to the DDMS.		Block 3: Update as required or as needed from annual review.				
1. Line item no.	2. DRD Title	3. Frequency	4. As-of-date	5. 1st subm. date	6. Copies	
BP-04	Financial Reporting Contractor-Held Property	MO	--	March 2014 Submission	a. Type E	b. Number 1
7. Data type: <input type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution		9. Remarks				
Electronic delivery via the instructions within the DRD.						

1. Line item no. BP-05	2. DRD Title RESERVED	3. Frequency	4. As-of-date	5. 1st subm. date	6. Copies	
					a. Type	b. Number
7. Data type: <input type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution		9. Remarks				
1. Line item no. BP-06	2. DRD Title Patent Rights Retention	3. Frequency See Block 9	4. As-of-date	5. 1st subm. date Contract start + 12 months	6. Copies	
					a. Type E HC	b. Number 1 1
7. Data type: <input type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Electronic copy delivered to the DDMS.		9. Remarks Block 3: As required by the DRD				
1. Line item no. BP-07	2. DRD Title Reports Required for Logistics	3. Frequency See Block 9	4. As-of-date --	5. 1st subm. date See Block 9	6. Copies	
					a. Type E HC	b. Number 1 2
7. Data type: <input type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution 1) Electronic copy delivered to the DDMS. 2) Hard copy submitted to the Supply and Equipment Management Office (SEMO).		9. Remarks 1. Reports of Personnel Property Management Operations: 3/25 and 9/25.* 2. Analysis of Fixed Inventory Assets: 3/25 and 9/25.* 3. Physical Inventory of Materials Annual Report: 9/25. 4. Quarterly Report of contractor-acquired material: 15 days after the end of fiscal quarters.** 5. Annual report of Exchange/Sale: 15 days after the end of the Government Fiscal Year. * Initial reports shall be delivered by 9/25/2013 and semiannually (every six months) thereafter. ** The delivery of the first quarterly report shall be due on or before 7/15/2013.				
1. Line item no. BP-08	2. DRD Title RESERVED	3. Frequency	4. As-of-date --	5. 1st subm. date	6. Copies	
					a. Type	b. Number
7. Data type: <input type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution		9. Remarks				

1. Line item no.	2. DRD Title	3. Frequency	4. As-of-date	5. 1st subm. date	6. Copies	
BP-09	Government Property Management Plan	RT	--	Due with Proposal	a. Type E HC	b. Number 1 1
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Electronic copy delivered to the DDMS.		9. Remarks Block 3: First update plan due at contract start + 30 days. Revisions shall be submitted within 45 days after major changes to the content of the JETS contract. Update as needed from annual review.				
1. Line item no.	2. DRD Title	3. Frequency	4. As-of-date	5. 1st subm. date	6. Copies	
BP-10	Re-procurement Data Package	OT	--	See block 9	a. Type E HC	b. Number 1 1
7. Data type: <input type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Electronic copy delivered to the DDMS.		9. Remarks Block 5: Initial package due 1 year prior to contract end or at the Contracting Officer's direction. Final package due at end of period of performance: submission of current version of all models, tools and supporting documentation which have been updated since initial submission.				
<i>SECTION 1.3 – Safety and Mission Assurance</i>						
1. Line item no.	2. DRD Title	3. Frequency	4. As-of-date	5. 1st subm. date	6. Copies	
SMA-01	Quality Plan	RT	--	Due with Proposal	a. Type E HC	b. Number 1 2
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution 1) Electronic copy delivered to the DDMS. 2) Hard copy submitted to NT4/Chief, Quality Engineering Branch.		9. Remarks Block 3: Update as requested by the COTR.				

1. Line item no. SMA-02	2. DRD Title Electrical, Electronic, and Electromechanical (EEE) Parts Control Plan	3. Frequency RT	4. As-of-date --	5. 1st subm. date Contract start + 30 days	6. Copies	
					a. Type E	b. Number 1
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Electronic copy delivered to the DDMS.		9. Remarks Block 3: Update as requested by the COTR.				

1. Line item no. SMA-03	2. DRD Title Safety and Health Plan	3. Frequency RT	4. As-of-date --	5. 1st subm. date Due with Proposal	6. Copies	
					a. Type E HC	b. Number 1 3
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution 1) Electronic copy delivered to the DDMS. 2) Hard copy submitted to NS1/Chief, JSC Safety and Test Operations Division. 3) Hard copy submitted to the JSC Occupational Health Officer		9. Remarks - Review annually. Block 3: Update as requested by the COTR or as needed by the annual review.				

1. Line item no. SMA-04	2. DRD Title Safety and Health Program Self Evaluation	3. Frequency AN	4. As-of-date September 30 th	5. 1st subm. date Contract start + 365 days	6. Copies	
					a. Type E HC	b. Number 1 5
7. Data type: <input type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution 1) Electronic copy delivered to the DDMS. 2) Hard copy submitted to NS1/Chief, JSC Safety and Test Operations Division (2 copies). 3) Hard copy submitted to JSC Occupational Health Officer. 4) Hard copy submitted to JSC Emergency Preparedness Office.		9. Remarks				

1. Line item no. SMA-05	2. DRD Title Lessons Learned Program Plan and Lessons Learned	3. Frequency See Block 9	4. As-of-date --	5. 1st subm. date See Block 9	6. Copies	
					a. Type E	b. Number 1
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution <ul style="list-style-type: none"> Plan: Deliver to DDMS. Lesson Learned: Deliver to DDMS and NASA Lessons Learned database per instruction in DRD. 		9. Remarks <p>Block 3: Lessons Learned Plan: One time delivery. Lessons learned: As required, within 30 days of triggering event or completion of investigation or hazard analysis/evaluation. Block 5: Lessons learned plan: Contract start + 60 days. Block 7: Data type 1 for Plan, Data type 2 for Lessons</p>				
1. Line item no. SMA-06	2. DRD Title Problem Reporting and Corrective Action (PRACA) for the JSC Government Furnished Equipment (GFE) and Flight Products	3. Frequency RD	4. As-of-date --	5. 1st subm. date See DRD	6. Copies	
					a. Type E	b. Number 1
7. Data type: <input type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution E-mail to jsc-gfepraca@mail.nasa.gov .		9. Remarks				
1. Line item no. SMA-07	2. DRD Title Government-Industry Data Exchange Program (GIDEP) and NASA Advisory Problem Data Sharing and Utilization Program Documentation and Reporting	3. Frequency AR	4. As-of-date --	5. 1st subm. date See Block 9	6. Copies	
					a. Type E HC	b. Number 1 2
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution <p>Implementation Procedures:</p> <ol style="list-style-type: none"> Deliver to the DDMS. Hard copy submitted to NT4/JSC GIDEP/NASA Advisory Coordinator <p>NASA Advisories:</p> <p>E-mail JF 1159 to the JSC NASA-Advisory/GIDEP Coordinator at jsc-jscadvco@mail.nasa.gov</p> <p>Status and Disposition Data:</p> <p>Electronically delivered to the JSC NASA Advisory/GIDEP Documents Status and Tracking System</p>		9. Remarks <ol style="list-style-type: none"> Contractor and sub-tier Implementation Procedure: Contract start + 60 days. Release of GIDEP documents: in compliance with GIDEP Operations Manual and Policy. Release of NASA Advisories: in compliance with NASA policy. Problem data assessments: 30 days after receipt of the problem data. Milestone/mission support: as required to support the milestone or mission events. Cost data: as required for special problems involving criminal investigations. <p>Block 7: Data type 1 for Procedure, Data type 2 for other reporting documentations.</p>				

SECTION 2.0 – Planning, Requirements and Verification Documentation

1. Line item no. RV-01	2. DRD Title Project Schedule	3. Frequency RT	4. As-of-date --	5. 1st subm. date Per direction in Task Order	6. Copies	
					a. Type E	b. Number 1
7. Data type: <input type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks				
1. Line item no. RV-02	2. DRD Title Regular Status Report/Summary Review	3. Frequency AD	4. As-of-date --	5. 1st subm. date Per direction in Task Order	6. Copies	
					a. Type E	b. Number 1
7. Data type: <input type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks				
1. Line item no. RV-03	2. DRD Title Project Technical Requirements Specification (PTRS)	3. Frequency AD	4. As-of-date --	5. 1st subm. date Per direction in Task Order	6. Copies	
					a. Type E	b. Number 1
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks				
1. Line item no. RV-04	2. DRD Title Project Requirements and Verification Documentation (PRVD)	3. Frequency AD	4. As-of-date --	5. 1st subm. date Per direction in Task Order	6. Copies	
					a. Type E	b. Number 1
7. Data type: <input type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks				

1. Line item no. RV-05	2. DRD Title Certification and Acceptance Requirements Document (CARD)	3. Frequency AD	4. As-of-date --	5. 1st subm. date See Block 9	6. Copies	
					a. Type E	b. Number 1
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks Block 5: Requirements and Verification Plans submit at CDR. Submit with evidence of verifications at SAR.				

1. Line item no. RV-06	2. DRD Title Interface Control Document (ICD)	3. Frequency See Block 9	4. As-of-date --	5. 1st subm. date See Block 9	6. Copies	
					a. Type E	b. Number 1
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks Block 3: Update as directed or as required through the appropriate Flight Product configuration control processes. An up-to-date revision is required at Critical Design Reviews and a final revision is required at flight product acceptance. Block 5: Initial version at the Preliminary Design Review or as directed in Task Order.				

1. Line item no. RV-07	2. DRD Title End Item Specification	3. Frequency RT	4. As-of-date --	5. 1st subm. date See Block 9	6. Copies	
					a. Type E	b. Number 1
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks Block 5: At PDR or as directed in Task Order.				

1. Line item no. RV-08	2. DRD Title Engineering Drawings and Model Files	3. Frequency AR	4. As-of-date --	5. 1st subm. date --	6. Copies	
					a. Type E	b. Number 1
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution 1) Flight engineering and CAD models: Reference JPR 8500.4 for submittal and approval process. 2) Facility and other non-flight engineering and CAD models: As specified in Task Order or in native format to DDMS.		9. Remarks Block 7: Data Type 1: NASA CAGE Code (Written Approval) Data Type 2: Contractor CAGE Code (Mandatory Submittal) - Updated as required prior to Critical Design Reviews (CDRs). All updates are submitted for approval by the appropriate configuration control board, prior to obtaining authorization after the CDR.				

1. Line item no. RV-09	2. DRD Title Flight Projects Authorization to Proceed Record	3. Frequency AR	4. As-of-date --	5. 1st subm. date See Block 9	6. Copies	
					a. Type E HC	b. Number 1 1
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution 1) Electronic copy delivered to the DDMS.		9. Remarks Block 5: Submitted within 90 days after PDR or as defined in the Task Order.				

1. Line item no. RV-10	2. DRD Title Flight Products Verification and Validation Plan	3. Frequency AR	4. As-of-date --	5. 1st subm. date See Block 9	6. Copies	
					a. Type E	b. Number 1
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks Block 5: At PDR or as directed in the Task Order. Block 7: Data Type 1: Plan. Data Type 2: Results.				

1. Line item no. RV-11	2. DRD Title Flight Products Qualification Plan	3. Frequency AR	4. As-of-date --	5. 1st subm. date See Block 9	6. Copies	
					a. Type E	b. Number 1
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks Block 5: At CDR or as directed in the Task Order.				

1. Line item no. RV-12	2. DRD Title Flight Products Qualification Test Procedures	3. Frequency RT	4. As-of-date --	5. 1st subm. date See Block 9	6. Copies	
					a. Type E	b. Number 1
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks Block 5: One month before initiation of formal Qualification testing.				

1. Line item no. RV-13	2. DRD Title Flight Products Acceptance Test Procedures	3. Frequency AR	4. As-of-date --	5. 1st subm. date See Block 9	6. Copies	
					a. Type E	b. Number 1
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks Block 5: One month before initiation of formal Acceptance testing.				

1. Line item no. RV-14	2. DRD Title Flight Product Qualification Report	3. Frequency AR	4. As-of-date --	5. 1st subm. date See Block 9	6. Copies	
					a. Type E	b. Number 1
7. Data type: <input type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks Block 5: At System Acceptance Review or as directed in the Task Order.				
<i>SECTION 2.1 – Software Requirements and Verification Documentation</i>						
1. Line item no. SW-01	2. DRD Title Software Requirements Document	3. Frequency RT	4. As-of-date --	5. 1st subm. date As directed in the Task Order	6. Copies	
					a. Type E	b. Number 1
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks				
1. Line item no. SW-02	2. DRD Title Software Development Plan	3. Frequency RT	4. As-of-date --	5. 1st subm. date As directed in the Task Order	6. Copies	
					a. Type E	b. Number 1
7. Data type: <input type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks				
1. Line item no. SW-03	2. DRD Title Software Design Documents	3. Frequency RT	4. As-of-date --	5. 1st subm. date As directed in the Task Order	6. Copies	
					a. Type E	b. Number 1
7. Data type: <input type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks				
1. Line item no. SW-04	2. DRD Title Software Code	3. Frequency RT	4. As-of-date --	5. 1st subm. date As directed by the Task Order	6. Copies	
					a. Type E	b. Number 1
7. Data type: <input type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks				

1. Line item no. SW-05	2. DRD Title Software Assurance Plan	3. Frequency RT	4. As-of-date --	5. 1st subm. date Contract start + 60 days	6. Copies	
					a. Type E	b. Number 1
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Electronic copy delivered to the DDMS.		9. Remarks Review annually at a minimum.				

1. Line item no. SW-06	2. DRD Title Software Test Description	3. Frequency RT	4. As-of-date --	5. 1st subm. date As directed by the Task Order	6. Copies	
					a. Type E	b. Number 1
7. Data type: <input type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks				

1. Line item no. SW-07	2. DRD Title Software Test Plan	3. Frequency RT	4. As-of-date --	5. 1st subm. date As directed by the Task Order	6. Copies	
					a. Type E	b. Number 1
7. Data type: <input type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks				

1. Line item no. SW-08	2. DRD Title Version Description Document (Software and/or Firmware)	3. Frequency RT	4. As-of-date --	5. 1st subm. date As directed by the Task Order	6. Copies	
					a. Type E	b. Number 1
7. Data type: <input type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks				

<i>SECTION 2.2 – Technical Products and Data Packages</i>						
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1. Line item no. TD-01	2. DRD Title Flight Products Systems Requirements Review (SRR) Data Package	3. Frequency RT	4. As-of-date --	5. 1st subm. date As directed by the Task Order	6. Copies	
					a. Type E	b. Number 1
7. Data type: <input type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks				

1. Line item no. TD-02	2. DRD Title Preliminary Design Review (PDR) Data Package	3. Frequency RT	4. As-of-date --	5. 1st subm. date See Block 9	6. Copies	
					a. Type E	b. Number 1
7. Data type: <input type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks Block 5: Submit 14 days before PDR or as directed by Task Order				

1. Line item no. TD-03	2. DRD Title Flight Product Critical Design Review (CDR) Data Package	3. Frequency RT	4. As-of-date --	5. 1st subm. date See Block 9	6. Copies	
					a. Type E	b. Number 1
7. Data type: <input type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks Block 5: Submit 14 days before CDR or as directed by Task Order				

1. Line item no. TD-04	2. DRD Title Acceptance Data Package (ADP)	3. Frequency RT	4. As-of-date --	5. 1st subm. date Delivery of End Item	6. Copies	
					a. Type E HC	b. Number 1 1
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution 1) Deliver to the DDMS for all Flight Products. 2) Hardcopy submitted with end item.		9. Remarks The DD 250 is the form used for the final approval of the ADP and the product delivered.				

1. Line item no. TD-05	2. DRD Title Limited Life Items List	3. Frequency RT	4. As-of-date --	5. 1st subm. date See Block 9	6. Copies	
					a. Type E	b. Number 1
7. Data type: <input type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks Block 5: Submit at SAR or as directed in the Task Order				

1. Line item no. TD-06	2. DRD Title Certification Data Package	3. Frequency RT	4. As-of-date --	5. 1st subm. date As directed in the Task Order	6. Copies	
					a. Type E	b. Number 1
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks				

1. Line item no. TD-07	2. DRD Title Flight Product User's Guide	3. Frequency AD	4. As-of-date --	5. 1st subm. date As directed in the Task Order	6. Copies	
					a. Type E	b. Number 1
7. Data type: <input type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks The User's Guide shall be updated as required by configuration change to the products or the product interfaces. Flight crew experiences when using the guide and corrections of technical content may be some of the sources for updates.				

1. Line item no. TD-08	2. DRD Title Engineering Analysis	3. Frequency RT	4. As-of-date --	5. 1st subm. date See Block 9	6. Copies	
					a. Type E	b. Number 1
7. Data type: <input type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks Block 5: At System Acceptance Review or as directed in the Task Order.				

1. Line item no. TD-09	2. DRD Title Flight Products Verification and Validation Report	3. Frequency RT	4. As-of-date --	5. 1st subm. date See Block 9	6. Copies	
					a. Type E	b. Number 1
7. Data type: <input type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks Block 5: The initial report is provided at qualification or 1st flight unit completion. The V&V report is completed at the Systems Acceptance Review.				

1. Line item no. TD-10	2. DRD Title Space Station Reliability and Maintainability Predictions Report	3. Frequency RT	4. As-of-date	5. 1st subm. date As directed in the Task Order	6. Copies	
					a. Type E	b. Number 1
7. Data type: <input type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks				

1. Line item no. TD-11	2. DRD Title Test Report	3. Frequency RD	4. As-of-date --	5. 1st subm. date As directed in the Task Order	6. Copies	
					a. Type E	b. Number 1
7. Data type: <input type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks				

1. Line item no. TD-12	2. DRD Title Delivery and Acceptance Report	3. Frequency AD	4. As-of-date --	5. 1st subm. date As directed in the Task Order	6. Copies	
					a. Type E	b. Number 1
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks				

1. Line item no. TD-13	2. DRD Title Government Certification Approval Request (GCAR)	3. Frequency RT	4. As-of-date	5. 1st subm. date See Block 9	6. Copies	
					a. Type E	b. Number 1
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks Block 5: At SAR or as directed in the Task Order.				

1. Line item no. TD-14	2. DRD Title Flight Products Workmanship Specification List	3. Frequency RT	4. As-of-date --	5. 1st subm. date See Block 9	6. Copies	
					a. Type E	b. Number 1
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks Block 5: The initial submittal is at the PDR or as directed by the Task Order.				

1. Line item no. TD-15	2. DRD Title Electrical, Electronic, and Electromechanical (EEE) Parts List and Analysis Report	3. Frequency RT	4. As-of-date --	5. 1st subm. date As directed in the Task Order	6. Copies	
					a. Type E	b. Number 1
7. Data type: <input type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks				

1. Line item no. TD-16	2. DRD Title Space Station Hardware Failure Modes and Effects Analysis (FMEA) and Critical Items List (CIL)	3. Frequency RT	4. As-of-date --	5. 1st subm. date As directed in the Task Order	6. Copies	
					a. Type E	b. Number 1
7. Data type: <input type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks				

1. Line item no. TD-17	2. DRD Title Space Station Payload Safety Data Package	3. Frequency RT	4. As-of-date --	5. 1st subm. date As directed in the Task Order	6. Copies	
					a. Type E	b. Number 1
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks				

1. Line item no. TD-18	2. DRD Title Space Station Hazard Reports (HRs)	3. Frequency RT	4. As-of-date --	5. 1st subm. date See Block 9	6. Copies	
					a. Type E	b. Number 1
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks Block 5: Phase I, II and III Report versions are submitted concurrent with the milestone reviews or as specified in the Task Order.				

1. Line item no. TD-19	2. DRD Title Risk Assessment Executive Summary Report	3. Frequency RT	4. As-of-date --	5. 1st subm. date See Block 9	6. Copies	
					a. Type E	b. Number 1
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks Block 5: Phase I, II and III Report versions are submitted concurrent with the milestone reviews or as specified in the Task Order.				

1. Line item no. TD-20	2. DRD Title Non-Conformance Record (NCR)	3. Frequency AR	4. As-of-date --	5. 1st subm. date --	6. Copies	
					a. Type E	b. Number 1
7. Data type: <input checked="" type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks - The Contractor shall provide NASA access to its internal electronic data system, if requested by the CO. Block 7: Written approval of "waiver", "use as is", and "repair" dispositions is required per requirements defined in Quality Plan and Configuration Management Plan.				

1. Line item no. TD-21	2. DRD Title Flight Products Failure Analysis Report	3. Frequency AR	4. As-of-date --	5. 1st subm. date See Block 9	6. Copies	
					a. Type E	b. Number 1
7. Data type: <input type="checkbox"/> (1) Written Approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks Block5: Established by agreement between the contractor and the COTR or the COTR's technical designee; may vary depending on the nature of the failure.				

1. Line item no. TD-22	2. DRD Title Engineering Design Change Proposal	3. Frequency AR	4. As-of-date --	5. 1st subm. date --	6. Copies	
					a. Type E	b. Number 1
7. Data type: <input type="checkbox"/> (1) Written Approval <input type="checkbox"/> (2) Mandatory Submittal <input checked="" type="checkbox"/> (3) Submitted upon request						
8. Distribution Deliver to the respective Task Order folder in the DDMS.		9. Remarks				

B.3 CONTRACT PHASE-IN (FIRM-FIXED PRICE)

The total firm fixed price of all phase-in effort for this contract is **\$(b) (4)** covering a 60-calendar day phase-in period from **March 1, 2013** through **April 30, 2013**.

(End of clause)

B.5 CONTRACT FUNDING (NFS 1852.232-81) (JUN 1990) (Applicable to Cost-Reimbursement Only)

(a) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds clause, the total amount allotted by the Government to this contract is **\$(b) (4)**. This allotment is for JSC Engineering, Technology and Science (JETS) efforts at NASA/JSC and covers the following estimated period of performance: May 1, 2013 through **July 14, 2015**.

(b) An additional amount of **\$(b) (4)** is obligated under this contract for payment of fee.

(End of clause)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE	PAGE OF PAGES 1 16
2. AMENDMENT/MODIFICATION NO. 000074	3. EFFECTIVE DATE See Block 16C	4. REQUISITION/PURCHASE REQ. NO. See Schedule	5. PROJECT NO. (If applicable)
6. ISSUED BY NASA/Johnson Space Center Attn: Lawrence Miller/BH2 2101 NASA Parkway Houston TX 77058-3696	CODE JSC	7. ADMINISTERED BY (If other than Item 6) NASA/Johnson Space Center Attn: Lawrence Miller/BH2 281.483.3916 lawrence.l.miller@nasa.gov 2101 NASA Parkway Houston TX 77058-3696	CODE JSC
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) JACOBS 600 WILLIAM NORTHERN BLVD TULLAHOMA TN 37388-4729		(x) 9A. AMENDMENT OF SOLICITATION NO.	
		9B. DATED (SEE ITEM 11)	
		x 10A. MODIFICATION OF CONTRACT/ORDER NO. NNJ13HA01C	
		10B. DATED (SEE ITEM 13) 02/08/2013	
CODE 07486	FACILITY CODE		

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended, ☐ is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required) Net Increase: \$12,622,220.09

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
x	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: Mutual Agreement of the Parties
	D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor ☐ is not, ☒ is required to sign this document and return 1 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

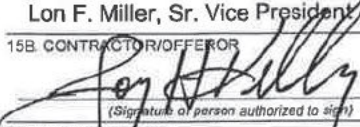
The purpose of this modification is to 1) increase contract funding from \$318,709,986.21 to \$331,332,206.30, an increase of \$12,622,220.09; 2) update contract clause B.5, Contract Funding; and 3) replace Attachment J-12, Wage Determination, with the attached. See additional page(s).

Payment Terms:

Net 30 days

FOB: Destination

Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print) Lon F. Miller, Sr. Vice President & General Manager		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Christian C. Gaspard	
15B. CONTRACTOR/OFFEROR  (Signature of person authorized to sign)	15C. DATE SIGNED 5/5/15	16B. UNITED STATES OF AMERICA CHRISTIAN GASPARD (Signature of Contracting Officer)	16C. DATE SIGNED 5/7/2015

NSN 7540-01-157-8070
Previous edition unusable

STANDARD FORM 30 (REV. 10-83)
Prescribed by GSA
FAR (48 CFR) 53.243

1. Clause B.3, Contract Phase-in (Firm-Fixed Price), is hereby revised as follows:

B.3 CONTRACT PHASE-IN (FIRM-FIXED PRICE)

The total firm fixed price of all phase-in effort for this contract is (b) (4) covering a 60-calendar day phase-in period from March 1, 2013 through April 30, 2013.

(End of clause)

2. Clause B.5, Contract Funding (NFS 1852.232-81) (JUN 1990), is hereby revised as follows:

B.5 CONTRACT FUNDING (NFS 1852.232-81) (JUN 1990) (Applicable to Cost-Reimbursement Only)

(a) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds clause, the total amount allotted by the Government to this contract is (b) (4). This allotment is for JSC Engineering, Technology and Science (JETS) efforts at NASA/JSC and covers the following estimated period of performance: May 1, 2013 through **August 14, 2015**.

(b) An additional amount of (b) (4) is obligated under this contract for payment of fee.

(End of clause)

3. Attachment J-12 is replaced in its entirety with the following:

JSC Engineering, Technology, and Science Contract

Wage Determination

Attachment J-12

STANDARD FORM 98a February 1973 U.S. DEPARTMENT OF LABOR Employment Standards Administration	NOTICE OF INTENTION TO MAKE A SERVICE CONTRACT AND RESPONSE TO NOTICE (Attachment A)	11. Notice No. NASA TBD	
12. CLASSES OF SERVICE EMPLOYEES TO BE EMPLOYED ON CONTRACT Harris County, TX; 2005-2516, Revision 15, Occupations included in “DOL Directory”		13. NUMBER OF EMPLOYEES IN EACH CLASS	14. HOURLY WAGE RATE THAT WOULD BE PAID IF FEDERALLY EMPLOYED
01111, General Clerk I (JETS SLC: Administrative Specialist I)		TBD	\$11.88
01012, General Clerk II (JETS SLC: Administrative Specialist II)		TBD	\$13.27
01013, General Clerk III (JETS SLC: Administrative Specialist III)		TBD	\$14.90
01270, Production Control Clerk, (JETS SLC: Planner/Scheduler I)		TBD	\$19.10
01270, Production Control Clerk, (JETS SLC: Planner/Scheduler II)		TBD	\$19.10
01270, Production Control Clerk, (JETS SLC: Planner/Scheduler III)		TBD	\$19.10
30081, Engineering Technician I (JETS SLC: Technician I)		TBD	\$20.02
30082, Engineering Technician II (JETS SLC: Technician II)		TBD	\$22.48
30083, Engineering Technician III (JETS SLC: Technician III)		TBD	\$25.15
30084, Engineering Technician IV (JETS SLC: Technical Specialist)		TBD	\$31.09
30081, Engineering Technician I (JETS SLC: Quality Assurance Specialist I)		TBD	\$20.02
30082, Engineering Technician II (JETS SLC: Quality Assurance Specialist II)		TBD	\$22.48

WD 05-2515 (Rev.-17) was first posted on www.wdol.gov on 12/30/2014

REGISTER OF WAGE DETERMINATIONS UNDER
THE SERVICE CONTRACT ACT
By direction of the Secretary of Labor

U.S. DEPARTMENT OF LABOR
EMPLOYMENT STANDARDS ADMINISTRATION
WAGE AND HOUR DIVISION
WASHINGTON D.C. 20210

Diane C. Koplewski
Director

Division of Wage
Determinations

Wage Determination No.: 2005-2515
Revision No.: 17
Date Of Revision: 12/22/2014

Note: Executive Order (EO) 13658 establishes an hourly minimum wage of \$10.10 for 2015 that applies to all contracts subject to the Service Contract Act for which the solicitation is issued on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.10 (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract. The EO minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

State: Texas

Area: Texas Counties of Austin, Brazoria, Chambers, Colorado, Fort Bend, Galveston, Grimes, Harris, Houston, Jackson, Lavaca, Liberty, Madison, Matagorda, Montgomery, San Jacinto, Trinity, Walker, Waller, Washington, Wharton

****Fringe Benefits Required Follow the Occupational Listing****

OCCUPATION CODE - TITLE	FOOTNOTE	RATE
01000 - Administrative Support And Clerical Occupations		
01011 - Accounting Clerk I		14.98
01012 - Accounting Clerk II		16.82
01013 - Accounting Clerk III		18.82
01020 - Administrative Assistant		25.91
01040 - Court Reporter		21.79
01051 - Data Entry Operator I		13.24
01052 - Data Entry Operator II		14.45
01060 - Dispatcher, Motor Vehicle		15.96
01070 - Document Preparation Clerk		13.41
01090 - Duplicating Machine Operator		13.41
01111 - General Clerk I		11.88
01112 - General Clerk II		13.27
01113 - General Clerk III		14.90
01120 - Housing Referral Assistant		20.69
01141 - Messenger Courier		12.55
01191 - Order Clerk I		13.52
01192 - Order Clerk II		15.24
01261 - Personnel Assistant (Employment) I		15.43
01262 - Personnel Assistant (Employment) II		17.27
01263 - Personnel Assistant (Employment) III		19.25

01270 - Production Control Clerk	19.10
01280 - Receptionist	12.02
01290 - Rental Clerk	14.75
01300 - Scheduler, Maintenance	16.59
01311 - Secretary I	16.59
01312 - Secretary II	18.57
01313 - Secretary III	20.69
01320 - Service Order Dispatcher	15.16
01410 - Supply Technician	25.91
01420 - Survey Worker	17.79
01531 - Travel Clerk I	13.71
01532 - Travel Clerk II	14.81
01533 - Travel Clerk III	15.83
01611 - Word Processor I	14.29
01612 - Word Processor II	16.04
01613 - Word Processor III	17.95
05000 - Automotive Service Occupations	
05005 - Automobile Body Repairer, Fiberglass	25.76
05010 - Automotive Electrician	23.79
05040 - Automotive Glass Installer	21.96
05070 - Automotive Worker	21.96
05110 - Mobile Equipment Servicer	20.23
05130 - Motor Equipment Metal Mechanic	25.76
05160 - Motor Equipment Metal Worker	21.96
05190 - Motor Vehicle Mechanic	25.76
05220 - Motor Vehicle Mechanic Helper	19.40
05250 - Motor Vehicle Upholstery Worker	20.83
05280 - Motor Vehicle Wrecker	21.96
05310 - Painter, Automotive	23.79
05340 - Radiator Repair Specialist	22.88
05370 - Tire Repairer	14.40
05400 - Transmission Repair Specialist	5.76
07000 - Food Preparation And Service Occupations	
07010 - Baker	10.06
07041 - Cook I	9.52
07042 - Cook II	10.88
07070 - Dishwasher	8.11
07130 - Food Service Worker	9.12
07210 - Meat Cutter	12.91
07260 - Waiter/Waitress	8.19
09000 - Furniture Maintenance And Repair Occupations	
09010 - Electrostatic Spray Painter	18.32
09040 - Furniture Handler	11.95
09080 - Furniture Refinisher	17.70
09090 - Furniture Refinisher Helper	14.58
09110 - Furniture Repairer, Minor	16.82
09130 - Upholsterer	18.32
11000 - General Services And Support Occupations	
11030 - Cleaner, Vehicles	9.90
11060 - Elevator Operator	8.82
11090 - Gardener	14.52

11122 - Housekeeping Aide	8.84
11150 - Janitor	8.84
11210 - Laborer, Grounds Maintenance	10.93
11240 - Maid or Houseman	7.96
11260 - Pruner	9.25
11270 - Tractor Operator	12.82
11330 - Trail Maintenance Worker	10.93
11360 - Window Cleaner	9.81
12000 - Health Occupations	
12010 - Ambulance Driver	15.00
12011 - Breath Alcohol Technician	15.64
12012 - Certified Occupational Therapist Assistant	23.69
12015 - Certified Physical Therapist Assistant	24.52
12020 - Dental Assistant	15.64
12025 - Dental Hygienist	32.93
12030 - EKG Technician	25.92
12035 - Electroneurodiagnostic Technologist	25.92
12040 - Emergency Medical Technician	15.00
12071 - Licensed Practical Nurse I	19.05
12072 - Licensed Practical Nurse II	21.32
12073 - Licensed Practical Nurse III	23.76
12100 - Medical Assistant	12.50
12130 - Medical Laboratory Technician	16.63
12160 - Medical Record Clerk	14.53
12190 - Medical Record Technician	16.57
12195 - Medical Transcriptionist	16.81
12210 - Nuclear Medicine Technologist	35.13
12221 - Nursing Assistant I	8.57
12222 - Nursing Assistant II	10.36
12223 - Nursing Assistant III	11.31
12224 - Nursing Assistant IV	12.69
12235 - Optical Dispenser	16.79
12236 - Optical Technician	15.29
12250 - Pharmacy Technician	19.18
12280 - Phlebotomist	13.30
12305 - Radiologic Technologist	26.70
12311 - Registered Nurse I	30.36
12312 - Registered Nurse II	38.37
12313 - Registered Nurse II, Specialist	38.37
12314 - Registered Nurse III	44.91
12315 - Registered Nurse III, Anesthetist	44.91
12316 - Registered Nurse IV	53.84
12317 - Scheduler (Drug and Alcohol Testing)	21.85
13000 - Information And Arts Occupations	
13011 - Exhibits Specialist I	19.30
13012 - Exhibits Specialist II	24.74
13013 - Exhibits Specialist III	28.94
13041 - Illustrator I	19.30
13042 - Illustrator II	23.91
13043 - Illustrator III	30.12
13047 - Librarian	26.69

13050 - Library Aide/Clerk	10.84
13054 - Library Information Technology Systems Administrator	24.09
13058 - Library Technician	16.04
13061 - Media Specialist I	17.39
13062 - Media Specialist II	19.46
13063 - Media Specialist III	21.68
13071 - Photographer I	15.32
13072 - Photographer II	18.15
13073 - Photographer III	22.56
13074 - Photographer IV	27.49
13075 - Photographer V	33.07
13110 - Video Teleconference Technician	16.73
14000 - Information Technology Occupations	
14041 - Computer Operator I	17.31
14042 - Computer Operator II	19.37
14043 - Computer Operator III	21.59
14044 - Computer Operator IV	24.00
14045 - Computer Operator V	26.57
14071 - Computer Programmer I	(see 1) 26.04
14072 - Computer Programmer II	(see 1)
14073 - Computer Programmer III	(see 1)
14074 - Computer Programmer IV	(see 1)
14101 - Computer Systems Analyst I	(see 1)
14102 - Computer Systems Analyst II	(see 1)
14103 - Computer Systems Analyst III	(see 1)
14150 - Peripheral Equipment Operator	17.31
14160 - Personal Computer Support Technician	24.00
15000 - Instructional Occupations	
15010 - Aircrew Training Devices Instructor (Non-Rated)	33.08
15020 - Aircrew Training Devices Instructor (Rated)	40.02
15030 - Air Crew Training Devices Instructor (Pilot)	47.98
15050 - Computer Based Training Specialist / Instructor	33.08
15060 - Educational Technologist	29.23
15070 - Flight Instructor (Pilot)	47.98
15080 - Graphic Artist	26.72
15090 - Technical Instructor	22.43
15095 - Technical Instructor/Course Developer	27.43
15110 - Test Proctor	18.43
15120 - Tutor	18.43
16000 - Laundry, Dry-Cleaning, Pressing And Related Occupations	
16010 - Assembler	9.40
16030 - Counter Attendant	9.40
16040 - Dry Cleaner	12.06
16070 - Finisher, Flatwork, Machine	9.40
16090 - Presser, Hand	9.40
16110 - Presser, Machine, Drycleaning	9.40
16130 - Presser, Machine, Shirts	9.40
16160 - Presser, Machine, Wearing Apparel, Laundry	9.40
16190 - Sewing Machine Operator	12.79
16220 - Tailor	13.75

16250 - Washer, Machine	10.32
19000 - Machine Tool Operation And Repair Occupations	
19010 - Machine-Tool Operator (Tool Room)	19.71
19040 - Tool And Die Maker	23.23
21000 - Materials Handling And Packing Occupations	
21020 - Forklift Operator	13.25
21030 - Material Coordinator	19.46
21040 - Material Expediter	19.46
21050 - Material Handling Laborer	12.26
21071 - Order Filler	11.47
21080 - Production Line Worker (Food Processing)	13.25
21110 - Shipping Packer	14.60
21130 - Shipping/Receiving Clerk	14.60
21140 - Store Worker I	11.34
21150 - Stock Clerk	16.06
21210 - Tools And Parts Attendant	13.58
21410 - Warehouse Specialist	13.25
23000 - Mechanics And Maintenance And Repair Occupations	
23010 - Aerospace Structural Welder	29.47
23021 - Aircraft Mechanic I	28.07
23022 - Aircraft Mechanic II	29.47
23023 - Aircraft Mechanic III	30.94
23040 - Aircraft Mechanic Helper	21.98
23050 - Aircraft, Painter	25.61
23060 - Aircraft Servicer	24.44
23080 - Aircraft Worker	25.76
23110 - Appliance Mechanic	18.61
23120 - Bicycle Repairer	13.91
23125 - Cable Splicer	25.34
23130 - Carpenter, Maintenance	19.71
23140 - Carpet Layer	18.45
23160 - Electrician, Maintenance	26.51
23181 - Electronics Technician Maintenance I	21.28
23182 - Electronics Technician Maintenance II	23.89
23183 - Electronics Technician Maintenance III	25.10
23260 - Fabric Worker	17.17
23290 - Fire Alarm System Mechanic	19.95
23310 - Fire Extinguisher Repairer	15.88
23311 - Fuel Distribution System Mechanic	20.96
23312 - Fuel Distribution System Operator	16.33
23370 - General Maintenance Worker	18.08
23380 - Ground Support Equipment Mechanic	28.07
23381 - Ground Support Equipment Servicer	24.44
23382 - Ground Support Equipment Worker	25.76
23391 - Gunsmith I	15.88
23392 - Gunsmith II	18.45
23393 - Gunsmith III	20.81
23410 - Heating, Ventilation And Air-Conditioning Mechanic	21.04
23411 - Heating, Ventilation And Air Contditioning Mechanic (Research Facility)	21.95

23430 - Heavy Equipment Mechanic	19.79
23440 - Heavy Equipment Operator	19.26
23460 - Instrument Mechanic	25.87
23465 - Laboratory/Shelter Mechanic	19.71
23470 - Laborer	11.04
23510 - Locksmith	18.99
23530 - Machinery Maintenance Mechanic	24.33
23550 - Machinist, Maintenance	20.81
23580 - Maintenance Trades Helper	14.94
23591 - Metrology Technician I	25.87
23592 - Metrology Technician II	26.99
23593 - Metrology Technician III	28.14
23640 - Millwright	21.53
23710 - Office Appliance Repairer	18.99
23760 - Painter, Maintenance	18.99
23790 - Pipefitter, Maintenance	21.38
23810 - Plumber, Maintenance	20.88
23820 - Pneudraulic Systems Mechanic	20.81
23850 - Rigger	20.81
23870 - Scale Mechanic	18.45
23890 - Sheet-Metal Worker, Maintenance	19.95
23910 - Small Engine Mechanic	18.08
23931 - Telecommunications Mechanic I	23.89
23932 - Telecommunications Mechanic II	24.95
23950 - Telephone Lineman	25.52
23960 - Welder, Combination, Maintenance	20.27
23965 - Well Driller	20.81
23970 - Woodcraft Worker	20.81
23980 - Woodworker	15.04
24000 - Personal Needs Occupations	
24570 - Child Care Attendant	10.65
24580 - Child Care Center Clerk	13.27
24610 - Chore Aide	7.35
24620 - Family Readiness And Support Services Coordinator	13.83
24630 - Homemaker	16.84
25000 - Plant And System Operations Occupations	
25010 - Boiler Tender	22.20
25040 - Sewage Plant Operator	18.70
25070 - Stationary Engineer	22.20
25190 - Ventilation Equipment Tender	14.58
25210 - Water Treatment Plant Operator	18.32
27000 - Protective Service Occupations	
27004 - Alarm Monitor	16.14
27007 - Baggage Inspector	11.56
27008 - Corrections Officer	19.62
27010 - Court Security Officer	21.18
27030 - Detection Dog Handler	17.90
27040 - Detention Officer	19.62
27070 - Firefighter	20.41
27101 - Guard I	11.56

27102 - Guard II	17.90
27131 - Police Officer I	24.19
27132 - Police Officer II	26.88
28000 - Recreation Occupations	
28041 - Carnival Equipment Operator	11.63
28042 - Carnival Equipment Repairer	12.36
28043 - Carnival Equipment Worker	8.51
28210 - Gate Attendant/Gate Tender	13.90
28310 - Lifeguard	12.38
28350 - Park Attendant (Aide)	15.55
28510 - Recreation Aide/Health Facility Attendant	11.35
28515 - Recreation Specialist	17.83
28630 - Sports Official	12.38
28690 - Swimming Pool Operator	17.44
29000 - Stevedoring/Longshoremen Occupational Services	
29010 - Blocker And Bracer	20.12
29020 - Hatch Tender	20.12
29030 - Line Handler	20.12
29041 - Stevedore I	18.72
29042 - Stevedore II	21.50
30000 - Technical Occupations	
30010 - Air Traffic Control Specialist, Center (HFO) (see 2)	40.33
30011 - Air Traffic Control Specialist, Station (HFO) (see 2)	27.81
30012 - Air Traffic Control Specialist, Terminal (HFO) (see 2)	30.63
30021 - Archeological Technician I	21.56
30022 - Archeological Technician II	25.47
30023 - Archeological Technician III	30.62
30030 - Cartographic Technician	30.62
30040 - Civil Engineering Technician	30.03
30061 - Drafter/CAD Operator I	21.56
30062 - Drafter/CAD Operator II	24.71
30063 - Drafter/CAD Operator III	27.56
30064 - Drafter/CAD Operator IV	33.10
30081 - Engineering Technician I	20.02
30082 - Engineering Technician II	22.48
30083 - Engineering Technician III	25.15
30084 - Engineering Technician IV	31.09
30085 - Engineering Technician V	38.65
30086 - Engineering Technician VI	46.10
30090 - Environmental Technician	29.96
30210 - Laboratory Technician	23.56
30240 - Mathematical Technician	30.62
30361 - Paralegal/Legal Assistant I	22.52
30362 - Paralegal/Legal Assistant II	27.90
30363 - Paralegal/Legal Assistant III	34.12
30364 - Paralegal/Legal Assistant IV	41.27
30390 - Photo-Optics Technician	30.62
30461 - Technical Writer I	23.21
30462 - Technical Writer II	28.38
30463 - Technical Writer III	34.93
30491 - Unexploded Ordnance (UXO) Technician I	25.63

30492 - Unexploded Ordnance (UXO) Technician II	31.01
30493 - Unexploded Ordnance (UXO) Technician III	37.17
30494 - Unexploded (UXO) Safety Escort	25.63
30495 - Unexploded (UXO) Sweep Personnel	25.63
30620 - Weather Observer, Combined Upper Air Or Surface Programs	(see 2) 26.35
30621 - Weather Observer, Senior	(see 2) 30.48
31000 - Transportation/Mobile Equipment Operation Occupations	
31020 - Bus Aide	11.88
31030 - Bus Driver	17.06
31043 - Driver Courier	14.03
31260 - Parking and Lot Attendant	9.17
31290 - Shuttle Bus Driver	15.28
31310 - Taxi Driver	11.54
31361 - Truckdriver, Light	15.28
31362 - Truckdriver, Medium	18.98
31363 - Truckdriver, Heavy	20.32
31364 - Truckdriver, Tractor-Trailer	20.32
99000 - Miscellaneous Occupations	
99030 - Cashier	10.01
99050 - Desk Clerk	11.72
99095 - Embalmer	23.71
99251 - Laboratory Animal Caretaker I	9.83
99252 - Laboratory Animal Caretaker II	10.71
99310 - Mortician	26.44
99410 - Pest Controller	15.80
99510 - Photofinishing Worker	12.62
99710 - Recycling Laborer	16.46
99711 - Recycling Specialist	20.06
99730 - Refuse Collector	14.67
99810 - Sales Clerk	12.66
99820 - School Crossing Guard	10.96
99830 - Survey Party Chief	20.96
99831 - Surveying Aide	14.35
99832 - Surveying Technician	18.13
99840 - Vending Machine Attendant	12.00
99841 - Vending Machine Repairer	14.41
99842 - Vending Machine Repairer Helper	12.31

ALL OCCUPATIONS LISTED ABOVE RECEIVE THE FOLLOWING BENEFITS:

HEALTH & WELFARE: \$4.02 per hour or \$160.80 per week or \$696.79 per month

VACATION: 2 weeks paid vacation after 1 year of service with a contractor or successor; 3 weeks after 5 years, and 4 weeks after 15 years. Length of service includes the whole span of continuous service with the present contractor or successor, wherever employed, and with the predecessor contractors in the performance of similar work at the same Federal facility. (Reg. 29 CFR 4.173)

HOLIDAYS: A minimum of ten paid holidays per year, New Year's Day, Martin Luther King Jr's Birthday, Washington's Birthday, Memorial Day, Independence Day, Labor Day, Columbus Day, Veterans' Day, Thanksgiving Day, and Christmas Day. (A contractor may substitute for any of the named holidays another day off with pay in accordance with a plan communicated to the employees involved.) (See 29 CFR 4174)

THE OCCUPATIONS WHICH HAVE NUMBERED FOOTNOTES IN PARENTHESES RECEIVE THE FOLLOWING:

1) **COMPUTER EMPLOYEES:** Under the SCA at section 8(b), this wage determination does not apply to any employee who individually qualifies as a bona fide executive, administrative, or professional employee as defined in 29 C.F.R. Part 541. Because most Computer System Analysts and Computer Programmers who are compensated at a rate not less than \$27.63 (or on a salary or fee basis at a rate not less than \$455 per week) an hour would likely qualify as exempt computer professionals, (29 C.F.R. 541.400) wage rates may not be listed on this wage determination for all occupations within those job families. In addition, because this wage determination may not list a wage rate for some or all occupations within those job families if the survey data indicates that the prevailing wage rate for the occupation equals or exceeds \$27.63 per hour conformances may be necessary for certain nonexempt employees. For example, if an individual employee is nonexempt but nevertheless performs duties within the scope of one of the Computer Systems Analyst or Computer Programmer occupations for which this wage determination does not specify an SCA wage rate, then the wage rate for that employee must be conformed in accordance with the conformance procedures described in the conformance note included on this wage determination.

Additionally, because job titles vary widely and change quickly in the computer industry, job titles are not determinative of the application of the computer professional exemption. Therefore, the exemption applies only to computer employees who satisfy the compensation requirements and whose primary duty consists of:

- (1) The application of systems analysis techniques and procedures, including consulting with users, to determine hardware, software or system functional specifications;
- (2) The design, development, documentation, analysis, creation, testing or modification of computer systems or programs, including prototypes, based on and related to user or system design specifications;
- (3) The design, documentation, testing, creation or modification of computer programs related to machine operating systems; or
- (4) A combination of the aforementioned duties, the performance of which requires the same level of skills. (29 C.F.R. 541.400).

2) **AIR TRAFFIC CONTROLLERS AND WEATHER OBSERVERS - NIGHT PAY & SUNDAY PAY:** If you work at night as part of a regular tour of duty, you will earn a night differential and receive an additional 10% of basic pay for any hours worked between 6pm and 6am. If you are a full-time employed (40 hours a week) and Sunday is part of your regularly scheduled workweek, you are paid at your rate of basic pay plus a Sunday premium of 25% of your basic rate for each hour of Sunday work which is not overtime (i.e. occasional work on Sunday outside the normal tour of duty is considered overtime work).

HAZARDOUS PAY DIFFERENTIAL: An 8 percent differential is applicable to employees employed in a position that represents a high degree of hazard when working with or in close proximity to ordinance, explosives, and incendiary materials. This includes work such as screening, blending, dying, mixing, and pressing of sensitive ordnance, explosives, and pyrotechnic compositions such as lead azide, black powder and photoflash powder. All dry-house activities involving propellants or explosives. Demilitarization,

modification, renovation, demolition, and maintenance operations on sensitive ordnance, explosives and incendiary materials. All operations involving regrading and cleaning of artillery ranges.

A 4 percent differential is applicable to employees employed in a position that represents a low degree of hazard when working with, or in close proximity to ordnance, (or employees possibly adjacent to) explosives and incendiary materials which involves potential injury such as laceration of hands, face, or arms of the employee engaged in the operation, irritation of the skin, minor burns and the like; minimal damage to immediate or adjacent work area or equipment being used. All operations involving, unloading, storage, and hauling of ordnance, explosive, and incendiary ordnance material other than small arms ammunition. These differentials are only applicable to work that has been specifically designated by the agency for ordnance, explosives, and incendiary material differential pay.

**** UNIFORM ALLOWANCE ****

If employees are required to wear uniforms in the performance of this contract (either by the terms of the Government contract, by the employer, by the state or local law, etc.), the cost of furnishing such uniforms and maintaining (by laundering or dry cleaning) such uniforms is an expense that may not be borne by an employee where such cost reduces the hourly rate below that required by the wage determination. The Department of Labor will accept payment in accordance with the following standards as compliance:

The contractor or subcontractor is required to furnish all employees with an adequate number of uniforms without cost or to reimburse employees for the actual cost of the uniforms. In addition, where uniform cleaning and maintenance is made the responsibility of the employee, all contractors and subcontractors subject to this wage determination shall (in the absence of a bona fide collective bargaining agreement providing for a different amount, or the furnishing of contrary affirmative proof as to the actual cost), reimburse all employees for such cleaning and maintenance at a rate of \$3.35 per week (or \$.67 cents per day). However, in those instances where the uniforms furnished are made of "wash and wear" materials, may be routinely washed and dried with other personal garments, and do not require any special treatment such as dry cleaning, daily washing, or commercial laundering in order to meet the cleanliness or appearance standards set by the terms of the Government contract, by the contractor, by law, or by the nature of the work, there is no requirement that employees be reimbursed for uniform maintenance costs.

The duties of employees under job titles listed are those described in the "Service Contract Act Directory of Occupations", Fifth Edition, April 2006, unless otherwise indicated. Copies of the Directory are available on the Internet. A links to the Directory may be found on the WHD home page at <http://www.dol.gov/esa/whd/> or through the Wage Determinations On-Line (WDOL) Web site at <http://wdol.gov/>.

**REQUEST FOR AUTHORIZATION OF ADDITIONAL CLASSIFICATION AND WAGE RATE
{Standard Form 1444 (SF 1444)}**

Conformance Process:

The contracting officer shall require that any class of service employee which is not listed herein and which is to be employed under the contract (i.e., the work to be performed is not performed by any classification listed in the wage determination), be classified by the contractor so as to provide a reasonable relationship (i.e., appropriate level of skill comparison) between such unlisted classifications and the classifications listed in the wage determination. Such conformed classes of employees shall be paid the monetary wages and furnished the fringe benefits as are determined. Such conforming process shall be initiated by the contractor prior to the performance of contract work by such unlisted class(es) of

employees. The conformed classification, wage rate, and/or fringe benefits shall be retroactive to the commencement date of the contract. {See Section 4.6 (C)(vi)} When multiple wage determinations are included in a contract, a separate SF 1444 should be prepared for each wage determination to which a class(es) is to be conformed.

The process for preparing a conformance request is as follows:

- 1) When preparing the bid, the contractor identifies the need for a conformed occupation(s) and computes a proposed rate(s).
- 2) After contract award, the contractor prepares a written report listing in order proposed classification title(s), a Federal grade equivalency (FGE) for each proposed classification(s), job description(s), and rationale for proposed wage rate(s), including information regarding the agreement or disagreement of the authorized representative of the employees involved, or where there is no authorized representative, the employees themselves. This report should be submitted to the contracting officer no later than 30 days after such unlisted class(es) of employees performs any contract work.
- 3) The contracting officer reviews the proposed action and promptly submits a report of the action, together with the agency's recommendations and pertinent information including the position of the contractor and the employees, to the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, for review. (See section 4.6(b)(2) of Regulations 29 CFR Part 4).
- 4) Within 30 days of receipt, the Wage and Hour Division approves, modifies, or disapproves the action via transmittal to the agency contracting officer, or notifies the contracting officer that additional time will be required to process the request.
- 5) The contracting officer transmits the Wage and Hour decision to the contractor.
- 6) The contractor informs the affected employees.

Information required by the Regulations must be submitted on SF 1444 or bond paper.

When preparing a conformance request, the "Service Contract Act Directory of Occupations" (the Directory) should be used to compare job definitions to insure that duties requested are not performed by a classification already listed in the wage determination. Remember, it is not the job title, but the required tasks that determine whether a class is included in an established wage determination. Conformances may not be used to artificially split, combine, or subdivide classifications listed in the wage determination.

REGISTER OF WAGE DETERMINATIONS UNDER
THE SERVICE CONTRACT ACT
By direction of the Secretary of Labor

U.S. DEPARTMENT OF LABOR
EMPLOYMENT STANDARDS ADMINISTRATION
WAGE AND HOUR DIVISION
WASHINGTON D.C. 20210

Diane C. Koplewski
Director

Division of Wage
Determinations

Wage Determination No.: CBA-2012-4795
Revision No.: 0
Date Of Revision: 1/24/2012

State: Texas

Area: Harris

Employed on Johnson Space Center contract for JSC Engineering, Technology and Science (JETS) Contract.

Collective Bargaining Agreement between contractor: Jacobs Technology Inc, and union: International Association of Machinist and Aerospace Workers, AF Local District, effective 2/1/2011 through 1/29/2014.

In accordance with Section 2(a) and 4(c) of the Service Contract Act, as amended, employees employed by the contractor(s) in performing services covered by the Collective Bargaining Agreement(s) are to be paid wage rates and fringe benefits set forth in the current collective bargaining agreement and modified extension agreement(s).

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT D CODE		PAGE OF PAGES 1 2	
2. AMENDMENT/MODIFICATION NO. 000075		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO.	
6. ISSUED BY NASA/Johnson Space Center Attn: Lawrence Miller/BH2 2101 NASA Parkway Houston TX 77058-3696		CODE JSC		5. PROJECT NO. (If applicable) JSC	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) JACOBS 600 WILLIAM NORTHERN BLVD TULLAHOMA TN 37388-4729		(x)		9A. AMENDMENT OF SOLICITATION NO.	
CODE 07486		FACILITY CODE		9B. DATED (SEE ITEM 11)	
		x		10A. MODIFICATION OF CONTRACT/ORDER NO. NNJ13HA01C	
				10B. DATED (SEE ITEM 13) 02/08/2013	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required) Net Decrease: -\$229,681.33
See Schedule

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) FAR 52.232-22, Limitation of Funds

E. IMPORTANT Contractor ☒ is not. ☐ is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

The purpose of this modification is to 1) decrease contract funding from \$331,332,206.30 to \$331,102,524.97, an decrease of \$229,681.33; and 2) update contract clause B.5, Contract Funding;

Payment Terms:

Net 30 days

FOB: Destination

Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Lawrence L. Miller	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA LAWRENCE MILLER <small>Digitally signed by LAWRENCE MILLER DN: c=US, o=U.S. Government, ou=NASA, ou=PM, cn=LAWRENCE MILLER 012445102000010011, Bin=642 Date: 2015.06.04 16:27:24 -0500</small>	16C. DATE SIGNED 6/4/2015 (Signature of Contracting Officer)

1. Clause B.3, Contract Phase-in (Firm-Fixed Price), is hereby revised as follows:

B.3 CONTRACT PHASE-IN (FIRM-FIXED PRICE)

The total firm fixed price of all phase-in effort for this contract is \$ (b) (4) covering a 60-calendar day phase-in period from March 1, 2013 through April 30, 2013.

(End of clause)

2. Clause B.5, Contract Funding (NFS 1852.232-81) (JUN 1990), is hereby revised as follows:

B.5 CONTRACT FUNDING (NFS 1852.232-81) (JUN 1990) (Applicable to Cost-Reimbursement Only)

(a) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds clause, the total amount allotted by the Government to this contract is \$ (b) (4). This allotment is for JSC Engineering, Technology and Science (JETS) efforts at NASA/JSC and covers the following estimated period of performance: May 1, 2013 through **August 14, 2015**.

(b) An additional amount of \$ (b) (4) is obligated under this contract for payment of fee.

(End of clause)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT D CODE		PAGE OF PAGES	
				1 2	
2. AMENDMENT/MODIFICATION NO. 000076		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO. See Schedule	
6. ISSUED BY NASA/Johnson Space Center Attn: Lawrence Miller/BH2 2101 NASA Parkway Houston TX 77058-3696		CODE JSC		5. PROJECT NO. (If applicable)	
		7. ADMINISTERED BY (If other than Item 6) NASA/Johnson Space Center Attn: Lawrence Miller/BH2 281.483.3916 lawrence.l.miller@nasa.gov 2101 NASA Parkway Houston TX 77058-3696		CODE JSC	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) JACOBS 600 WILLIAM NORTHERN BLVD TULLAHOMA TN 37388-4729		(x)		9A. AMENDMENT OF SOLICITATION NO.	
				9B. DATED (SEE ITEM 11)	
		x		10A. MODIFICATION OF CONTRACT/ORDER NO. NNJ13HA01C	
				10B. DATED (SEE ITEM 13) 02/08/2013	
CODE 07486		FACILITY CODE			

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required) Net Increase: \$4,665,360.58
See Schedule

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) FAR 52.232-22, Limitation of Funds

E. IMPORTANT Contractor ☒ is not. ☐ is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

The purpose of this modification is to 1) increase contract funding from \$331,102,524.97 to \$335,767,885.55, an increase of \$4,665,360.58; and 2) update contract clause B.5, Contract Funding;

Payment Terms:

Net 30 days

FOB: Destination

Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Lawrence L. Miller	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA LAWRENCE MILLER <small>Digitally signed by LAWRENCE MILLER DN: c=US, o=US Government, ou=NASA, ou=PPW, cn=LAWRENCE MILLER Date: 2015.06.04 16:23:19 -0500</small>	16C. DATE SIGNED 6/4/2015 (Signature of Contracting Officer)

1. Clause B.3, Contract Phase-in (Firm-Fixed Price), is hereby revised as follows:

B.3 CONTRACT PHASE-IN (FIRM-FIXED PRICE)

The total firm fixed price of all phase-in effort for this contract is \$ (b) (4) covering a 60-calendar day phase-in period from March 1, 2013 through April 30, 2013.

(End of clause)

2. Clause B.5, Contract Funding (NFS 1852.232-81) (JUN 1990), is hereby revised as follows:

B.5 CONTRACT FUNDING (NFS 1852.232-81) (JUN 1990) (Applicable to Cost-Reimbursement Only)

(a) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds clause, the total amount allotted by the Government to this contract is \$ (b) (4). This allotment is for JSC Engineering, Technology and Science (JETS) efforts at NASA/JSC and covers the following estimated period of performance: May 1, 2013 through **August 26, 2015**.

(b) An additional amount of \$ (b) (4) is obligated under this contract for payment of fee.

(End of clause)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT D CODE		PAGE OF PAGES 1 2	
2. AMENDMENT/MODIFICATION NO. 000077		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO.	
6. ISSUED BY NASA/Johnson Space Center Attn: Lawrence Miller/BH2 2101 NASA Parkway Houston TX 77058-3696		CODE JSC		5. PROJECT NO. (If applicable)	
		7. ADMINISTERED BY (If other than Item 6) NASA/Johnson Space Center Attn: Lawrence Miller/BH2 281.483.3916 lawrence.l.miller@nasa.gov 2101 NASA Parkway Houston TX 77058-3696		CODE JSC	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) JACOBS 600 WILLIAM NORTHERN BLVD TULLAHOMA TN 37388-4729		(x)		9A. AMENDMENT OF SOLICITATION NO.	
				9B. DATED (SEE ITEM 11)	
		x		10A. MODIFICATION OF CONTRACT/ORDER NO. NNJ13HA01C	
				10B. DATED (SEE ITEM 13) 02/08/2013	
CODE 07486		FACILITY CODE			

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended.
 Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required) Net Decrease: -\$447,510.05
 See Schedule

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) FAR 52.232-22, Limitation of Funds

E. IMPORTANT Contractor ☒ is not. ☐ is required to sign this document and return _____ 0 _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

The purpose of this modification is to 1) decrease contract funding from \$335,767,885.55 to 335,320,375.50, an decrease of \$447,510.05; and 2) update contract clause B.5, Contract Funding;

Payment Terms:

Net 30 days

FOB: Destination

Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Lawrence L. Miller	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA LAWRENCE MILLER <small>Digitally signed by LAWRENCE MILLER DN: cn=US, o=U.S. Government, ou=NASA, ou=P-V, cn=LAWRENCE MILLER 13.2.2002.120000000010011=sha1</small> (Signature of Contracting Officer)	16C. DATE SIGNED 6/26/2015

1. Clause B.3, Contract Phase-in (Firm-Fixed Price), is hereby revised as follows:

B.3 CONTRACT PHASE-IN (FIRM-FIXED PRICE)

The total firm fixed price of all phase-in effort for this contract is \$(b) (4) covering a 60-calendar day phase-in period from March 1, 2013 through April 30, 2013.

(End of clause)

2. Clause B.5, Contract Funding (NFS 1852.232-81) (JUN 1990), is hereby revised as follows:

B.5 CONTRACT FUNDING (NFS 1852.232-81) (JUN 1990) (Applicable to Cost-Reimbursement Only)

(a) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds clause, the total amount allotted by the Government to this contract is \$(b) (4). This allotment is for JSC Engineering, Technology and Science (JETS) efforts at NASA/JSC and covers the following estimated period of performance: May 1, 2013 through **August 26, 2015**.

(b) An additional amount of \$(b) (4) is obligated under this contract for payment of fee.

(End of clause)

1. Clause B.3, Contract Phase-in (Firm-Fixed Price), is hereby revised as follows:

B.3 CONTRACT PHASE-IN (FIRM-FIXED PRICE)

The total firm fixed price of all phase-in effort for this contract is \$ (b) (4) covering a 60-calendar day phase-in period from March 1, 2013 through April 30, 2013.

(End of clause)

2. Clause B.5, Contract Funding (NFS 1852.232-81) (JUN 1990), is hereby revised as follows:

B.5 CONTRACT FUNDING (NFS 1852.232-81) (JUN 1990) (Applicable to Cost-Reimbursement Only)

(a) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds clause, the total amount allotted by the Government to this contract is \$ (b) (4). This allotment is for JSC Engineering, Technology and Science (JETS) efforts at NASA/JSC and covers the following estimated period of performance: May 1, 2013 through **September 3, 2015**.

(b) An additional amount of \$ (b) (4) is obligated under this contract for payment of fee.

(End of clause)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT D CODE		PAGE OF PAGES 1 2	
2. AMENDMENT/MODIFICATION NO. 000079		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO.	
6. ISSUED BY NASA/Johnson Space Center Attn: Ryan Hancock/BH2 2101 NASA Parkway Houston TX 77058-3696		CODE JSC		5. PROJECT NO. (If applicable) JSC	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) JACOBS 600 WILLIAM NORTHERN BLVD TULLAHOMA TN 37388-4729		(x)		9A. AMENDMENT OF SOLICITATION NO.	
				9B. DATED (SEE ITEM 11)	
		x		10A. MODIFICATION OF CONTRACT/ORDER NO. NNJ13HA01C	
				10B. DATED (SEE ITEM 13) 02/08/2013	
CODE 07486		FACILITY CODE			

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required) Net Decrease: -\$1,084,272.98
See Schedule

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) FAR 52.232-22, Limitation of Funds

E. IMPORTANT Contractor ☒ is not. ☐ is required to sign this document and return _____ 0 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

The purpose of this modification is to 1) decrease contract funding from \$343,514,973.50 to \$342,430,700.52, an decrease of \$1,084,272.98; and 2) update contract clause B.5, Contract Funding;

Payment Terms:

Net 30 days

FOB: Destination

Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Rochelle N. Overstreet	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA ROCHELLE OVERSTREET Digitally signed by ROCHELLE OVERSTREET DN: c=US, o=U.S. Government, ou=NASA, ou=People, 0.9.2342.19200300.100.1.1=roverst, cn=ROCHELLE OVERSTREET (Signature of Contracting Officer)	16C. DATE SIGNED 8/7/2015

1. Clause B.3, Contract Phase-in (Firm-Fixed Price), is hereby revised as follows:

B.3 CONTRACT PHASE-IN (FIRM-FIXED PRICE)

The total firm fixed price of all phase-in effort for this contract is \$ (b) (4) covering a 60-calendar day phase-in period from March 1, 2013 through April 30, 2013.

(End of clause)

2. Clause B.5, Contract Funding (NFS 1852.232-81) (JUN 1990), is hereby revised as follows:

B.5 CONTRACT FUNDING (NFS 1852.232-81) (JUN 1990) (Applicable to Cost-Reimbursement Only)

(a) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds clause, the total amount allotted by the Government to this contract is \$ (b) (4). This allotment is for JSC Engineering, Technology and Science (JETS) efforts at NASA/JSC and covers the following estimated period of performance: May 1, 2013 through **September 3, 2015**.

(b) An additional amount of \$ (b) (4) is obligated under this contract for payment of fee.

(End of clause)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT D CODE		PAGE OF PAGES 1 2	
2. AMENDMENT/MODIFICATION NO. 000080		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO. See Schedule	
6. ISSUED BY NASA/Johnson Space Center Attn: Ryan Hancock/BH2 2101 NASA Parkway Houston TX 77058-3696		CODE JSC		5. PROJECT NO. (If applicable) JSC	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) JACOBS 600 WILLIAM NORTHERN BLVD TULLAHOMA TN 37388-4729		(x)		9A. AMENDMENT OF SOLICITATION NO.	
CODE 07486		FACILITY CODE		9B. DATED (SEE ITEM 11)	
		x		10A. MODIFICATION OF CONTRACT/ORDER NO. NNJ13HA01C	
				10B. DATED (SEE ITEM 13) 02/08/2013	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required) Net Increase: \$16,400,412.46
See Schedule

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) FAR 52.232-22, Limitation of Funds

E. IMPORTANT Contractor ☒ is not. ☐ is required to sign this document and return _____ 0 _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

The purpose of this modification is to 1) increase contract funding from \$342,430,700.52 to \$358,831,112.98, an increase of \$16,400,412.46; and 2) update contract clause B.5, Contract Funding;

Payment Terms:

Net 30 days

FOB: Destination

Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Rochelle N. Overstreet	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA ROCHELLE OVERSTREET (Signature of Contracting Officer)	16C. DATE SIGNED 8/10/2015

1. Clause B.3, Contract Phase-in (Firm-Fixed Price), is hereby revised as follows:

B.3 CONTRACT PHASE-IN (FIRM-FIXED PRICE)

The total firm fixed price of all phase-in effort for this contract is \$(b) (4) covering a 60-calendar day phase-in period from March 1, 2013 through April 30, 2013.

(End of clause)

2. Clause B.5, Contract Funding (NFS 1852.232-81) (JUN 1990), is hereby revised as follows:

B.5 CONTRACT FUNDING (NFS 1852.232-81) (JUN 1990) (Applicable to Cost-Reimbursement Only)

(a) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds clause, the total amount allotted by the Government to this contract is \$(b) (4). This allotment is for JSC Engineering, Technology and Science (JETS) efforts at NASA/JSC and covers the following estimated period of performance: May 1, 2013 through **October 5, 2015**.

(b) An additional amount of \$(b) (4) is obligated under this contract for payment of fee.

(End of clause)

SECTION B – SUPPLIES OR SERVICES AND PRICES/COSTS

B.1 LISTING OF CLAUSES INCORPORATED BY REFERENCE

Clause(s) at the beginning of this Section are incorporated by reference, with the same force and effect as if they were given in full text. Clauses incorporated by reference which require a fill-in by the Government include the text of the affected paragraph(s) only. This does not limit the clause to the affected paragraph(s). The Contractor is responsible for understanding and complying with the entire clause.

The following contract clauses pertinent to this section are hereby incorporated by reference:

I. FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1)

<u>CLAUSE NUMBER</u>	<u>DATE</u>	<u>TITLE</u>
--------------------------	-------------	--------------

NONE INCORPORATED BY REFERENCE

II. NASA FAR SUPPLEMENT (48 CFR CHAPTER 18) PROVISIONS

<u>CLAUSE NUMBER</u>	<u>DATE</u>	<u>TITLE</u>
--------------------------	-------------	--------------

NONE INCORPORATED BY REFERENCE

(End of Clauses Incorporated by Reference)

B.2 DESCRIPTION OF WORK

- (a) The Contractor shall provide all required services (except as may be expressly stated in this contract as furnished by the Government) necessary to successfully manage, deliver and/or perform, operate, maintain and provide all requirements in accordance with the Statement of Work (SOW) in Section C, as well as all Data Requirement Description (DRDs) provided in Section J, and all other requirements as specified throughout the contract.
- (b) In addition, the Contractor shall provide all resources and services (except as may be expressly stated in this contract as furnished by the Government) necessary to successfully perform all phase-in activities, in accordance with the Contract Phase-in Plan, Attachment J-10.

- (c) This is a performance-based, Indefinite Delivery/Indefinite Quantity (IDIQ) type contract. The contract performance will be measured in accordance with the Award Fee Plan, Section J-11.

(End of clause)

B.3 CONTRACT PHASE-IN (FIRM-FIXED PRICE)

The total firm fixed price of all phase-in effort for this contract is \$ (b) (4) covering a 60-calendar day phase-in period from **March 1, 2013** through **April 30, 2013**.

(End of clause)

B.4 ESTIMATED COST AND AWARD FEE (NFS 1852.216-85) (SEPT 1993)

- (a) The estimated cost of this contract is \$ (b) (4) The maximum available fee, excluding base fee, if any is \$ (b) (4) The base fee is \$^{(b) (4)} Total estimated cost and maximum fee is **\$220,155,372.40**.

- (b) The estimated firm-fixed price of this contract is **\$0**. (Excluding Phase-In)

	COST / PRICE	MAX AWARD FEE	TOTAL COST / PRICE AND FEE
PHASE-IN FP		(b) (4)	
TOTAL CONTRACT VALUE		(b) (4)	

(End of clause)

B.5 CONTRACT FUNDING (NFS 1852.232-81) (JUN 1990) (Applicable to Cost-Reimbursement Only)

- (a) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds clause, the total amount allotted by the Government to this contract is \$ (b) (4) This allotment is for JSC Engineering, Technology and Science (JETS) efforts at NASA/JSC and covers the following estimated period of performance: May 1, 2013 through August 12, 2014..

- (b) An additional amount of \$ (b) (4) is obligated under this contract for payment

of fee.

(End of clause)

B.6 MINIMUM/MAXIMUM IDIQ POTENTIAL CONTRACT VALUE

- (a) The maximum value, not to exceed (NTE) that can be ordered under the IDIQ provisions of the base contract period is **\$1,018,800,000**.

This NTE amount includes CR task orders. The amount includes both cost and fee. The maximum NTE amount is an estimate and does not reflect an obligation of the Government. The Government's obligation hereunder shall be based on the value specified in the task orders issued during the period of the contract.

- (b) The guaranteed minimum quantity of work initiated through the issuance of task orders, shall be **\$20,000,000**. The amount includes both cost and fee. There will be no further obligation on the part of the Government to issue additional task orders thereafter. If the Government orders supplies or services in excess of the minimum but not up to the maximum, this circumstance shall not constitute the basis for an equitable adjustment to any contract price estimated cost or fee.

(End of clause)

B.7 SPECIAL PROVISIONS REGARDING CONTRACT ADJUSTMENTS

- (a) Revisions to milestones, missions, schedules, manifests and/or processing requirements may be made by the government, and shall be deemed within the scope of this contract. The government will consider a proposed equitable adjustment (increase or decrease) to the contract value (cost and fee), when the estimated cost (exclusive of fee) of any single event exceeds \$650,000 or, when the aggregate amount of all events estimated to have a cost impact of \$650,000 or less (exclusive of fee) reaches \$7 million for the contract year unless the contractor's actions are a significant contributing factor causing a cost increase.
- (b) The government will consider an adjustment to the contract, for estimated cost only (no fee) for those events equal to or less than the above thresholds.

(End of clause)

B.8 FULLY BURDENED RATE TABLE FOR PRICING COST REIMBURSABLE (CR) TASK ORDERS

The purpose of this clause is to set forth the rates to be utilized in the subsequent negotiation of CR IDIQ Task Orders in accordance with clause H.6 - Task Ordering

Procedure.

Pricing of all CR IDIQ task orders shall be in accordance with the negotiated rates set forth below. Under no circumstances shall the rates used to price out CR task orders exceed the agreed upon rates in the Fully Burdened Rate Table shown below.

These following labor, indirect, and fee rates shall be used in establishment of the estimated cost of individual CR task orders. The labor rates are fully burdened composite team rates (prime and all subcontractors); but exclude prime fee. The Fee Rate is the maximum fee rate which may be proposed or negotiated for individual CR task orders during contract performance.

The parties agree that the fully burdened labor rates established below shall not be subject to any equitable adjustments on the basis of actual rates varying from these rates.

~~The parties agree that the fully burdened labor rates established below shall not be subject to any equitable adjustment (upwards or downwards), regardless of actual rates incurred during contract performance.~~

FULLY BURDENED RATE TABLE				5 Year Base Period					Option 1		Option 2	
Item #		Labor Category	Unit	Contract Year 1 Rates	Contract Year 2 Rates	Contract Year 3 Rates	Contract Year 4 Rates	Contract Year 5 Rates	Contract Years 6 Rates	Contract Years 7 Rates	Contract Years 8-Rates	Contract Years 9 Rates
				5/1/2013 - 4/30/2014	5/1/2014 – 4/30/2015	5/1/2015 – 4/30/2016	5/1/2016 – 4/30/2017	5/1/2017 – 4/30/2018	5/1/2018 – 4/30/2019	5/1/2019 – 4/30/2020	5/1/2020- 4/30/2021	5/1/2021- 4/30/2022
	1	Program Manager	Hour	<div>(b) (4)</div>								
	2	Manager	Hour									
	3	Supervisor	Hour									
	4	Scientist I	Hour									
	5	Scientist II	Hour									
	6	Scientist III	Hour									
	7	Scientist IV	Hour									
	8	Senior Scientist Specialist	Hour									
	9	Engineer I	Hour									
	10	Engineer II	Hour									
	11	Engineer III	Hour									
	12	Engineer IV	Hour									
	13	Senior Engineer Specialist	Hour									
	14	IT I	Hour									
	15	IT II	Hour									
	16	IT III	Hour									
	17	IT IV	Hour									

18	Engineering Technologist I	Hour
19	Engineering Technologist II	Hour
20	Engineering Technologist III	Hour
21	Senior Engineering Technologist	Hour
22	Technician I	Hour
23	Technician II	Hour
24	Technician III	Hour
25	Technician Specialist	Hour
26	Business Specialist I	Hour
27	Business Specialist II	Hour
28	Business Specialist III	Hour
29	Administration Specialist I	Hour
30	Administration Specialist II	Hour
31	Administration Specialist III	Hour
32	Projects Controls Specialist I	Hour
33	Projects Controls Specialist II	Hour
34	Projects Controls Specialist III	Hour
35	Planner/Scheduler I	Hour
36	Planner/Scheduler II	Hour
37	Planner/Scheduler III	Hour

(b) (4)

38	Configuration Management Specialist I	Hour
39	Configuration Management Specialist II	Hour
40	Quality Assurance Specialist I	Hour
41	Quality Assurance Specialist II	Hour
42	Product Assurance Manager	Hour
43	Safety Manager	Hour
44	Safety Engineer I	Hour
45	Safety Engineer II	Hour
46	Safety Engineer III	Hour
47	Quality Engineer I	Hour
48	Quality Engineer II	Hour
49	Quality Engineer III	Hour
50	Software Quality Assurance Engineer I	Hour
51	Software Quality Assurance Engineer II	Hour
52	Software Quality Assurance Engineer III	Hour
53	Software Quality Assurance Engineer IV	Hour
54	Indirect Cost Rate to be applied to Non-Labor Resources if required by a Task Order (Identify the Rate and the basis of application)	Over-head
		G&A
55	NTE Award Fee Rate	

(b) (4)

(End of clause)

B.9 LIMITIATION OF FUNDS (FIXED-PRICE CONTRACT) (NFS 1852.232-77)
(MAR 1989) (Applicable to fixed-price only)

(a) Of the total price estimated in Schedule B.5(c), the sum of \$0.00 is presently available for payment and allotted to this contract. It is anticipated that from time to time additional funds will be allocated to the contract in accordance with the following schedule, until the total price of said task orders is allotted:

SCHEDULE FOR ALLOTMENT OF FUNDS

Date	Amounts
TBD	TBD

(b) The Contractor agrees to perform or have performed work on the task orders specified in paragraph (a) of this clause up to the point at which, if this contract is terminated pursuant to the Termination for Convenience of the Government clause of this contract, the total amount payable by the Government (including amounts payable for subcontracts and settlement costs) pursuant to paragraphs (f) and (g) of that clause would, in the exercise of reasonable judgment by the Contractor, approximate the total amount at the time allotted to the contract. The Contractor is not obligated to continue performance of the work beyond that point. The Government is not obligated in any event to pay or reimburse the Contractor more than the amount from time to time allotted to the contract, anything to the contrary in the Termination for Convenience of the Government clause notwithstanding.

(c) (1) It is contemplated that funds presently allotted to this contract will cover the work to be performed until TBD.

(2) If funds allotted are considered by the Contractor to be inadequate to cover the work to be performed until that date, or an agreed date substituted for it, the Contractor shall notify the Contracting Officer in writing when within the next 60 days the work will reach a point at which, if the contract is terminated pursuant to the Termination for Convenience of the Government clause of this contract, the total amount payable by the Government (including amounts payable for subcontracts and settlement costs) pursuant to paragraphs (f) and (g) of that clause will approximate 75 percent of the total amount then allotted to the contract.

(3) (i) The notice shall state the estimate when the point referred to in paragraph (c)(2) of this clause will be reached and the estimated amount of additional funds required to continue performance to the date specified in paragraph (c)(1) of this clause, or an agreed date substituted for it.

(ii) The Contractor shall, 60 days in advance of the date specified in paragraph (c)(1) of this clause, or an agreed date substituted for it, advise the Contracting Officer in writing as to the estimated amount of additional funds required for the timely performance of the contract for a further period as may be specified in the contract or otherwise agreed to by the parties.

(4) If, after the notification referred to in paragraph (c)(3)(ii) of this clause, additional funds are not allotted by the date specified in paragraph (c)(1) of this clause, or an agreed date substituted for it, the Contracting Officer shall, upon the Contractor's written request, terminate this contract on that date or on the date set forth in the request, whichever is later, pursuant to the Termination for Convenience of the Government clause.

(d) When additional funds are allotted from time to time for continued performance of the work under this contract, the parties shall agree on the applicable period of contract performance to be covered by these funds. The provisions of paragraphs (b) and (c) of this clause shall apply to these additional allotted funds and the substituted date pertaining to them, and the contract shall be modified accordingly.

(e) If, solely by reason of the Government's failure to allot additional funds in amounts sufficient for the timely performance of this contract, the Contractor incurs additional costs or is delayed in the performance of the work under this contract, and if additional funds are allotted, an equitable adjustment shall be made in the price or prices (including appropriate target, billing, and ceiling prices where applicable) of the services to be performed, or in the time of delivery, or both.

(f) The Government may at any time before termination, and, with the consent of the Contractor, after notice of termination, allot additional funds for this contract.

(g) The provisions of this clause with respect to termination shall in no way be deemed to limit the rights of the Government under the default clause of this contract. The provisions of this Limitation of Funds clause are limited to the work on and allotment of funds for the items set forth in paragraph (a) of this clause. This clause shall become inoperative upon the allotment of funds for the total price of said work except for rights and obligations then existing under this clause.

(h) Nothing in this clause shall affect the right of the Government to terminate this contract pursuant to the Termination for Convenience of the Government clause of this contract.

(End of clause)

[END OF SECTION]