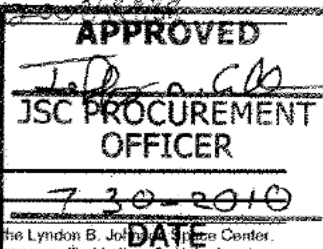


SOLICITATION, OFFER AND AWARD		1. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 350)	RATING DO-C9	PAGE SEE SECTION 11 BELOW
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2. CONTRACT NO. <b>NNJ09040809R</b>	3. SOLICITATION NO. <b>NNJ09040809R</b>	4. TYPE OF SOLICITATION <input type="checkbox"/> SEALED BID (IFB) <input checked="" type="checkbox"/> NEGOTIATED (RFP)	5. DATE ISSUED January 29, 2010	6. REQUISITION/PURCHASE NO. <b>248853</b>
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7. ISSUED BY NASA Lyndon B. Johnson Space Center BH3/ Michael Duskworth 2101 NASA Parkway Houston, TX 77058-3696	CODE <b>BH3</b>	8. ADDRESS OFFER TO (If other than item 7) NASA Johnson Space Center 2101 NASA Parkway Central Receiving, Bldg 421 Attn: Cynthia Maclean/BH/Bldg. 225 Houston, TX 77058-3696
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NOTE: In sealed bid solicitations "offer" and "offeror" mean "bid" and "bidder"

**SOLICITATION**  
9. Sealed offers in original and copies for furnishing the supplies or services in the Schedule will be received at the place specified in item 8, at the Lyndon B. Johnson Space Center, until **1:00 p.m.**, local time, on **March 29, 2010**. NOTE: Volume II, Past Performance, and the Cognizant Audit Office Template are due at the Lyndon B. Johnson Space Center, until **1:00 p.m.**, local time, on **February 26, 2010**. For further information, see Provision L.13 for delivery instructions and Provision L.18 for due dates and time. CAUTION - LATE Submissions, Modifications, and Withdrawals: See Provision L.1 (FAR 52.215-1). All offers are subject to all terms and conditions contained in this solicitation.

10. FOR INFORMATION CALL:	A. NAME <b>Cynthia W. Maclean</b>	B. TELEPHONE NO. (NO COLLECT CALLS) AREA CODE <b>281</b> NUMBER <b>244-2497</b> EXT.	C. EMAIL ADDRESS <b>cynthia.w.macleam@nasa.gov</b>
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11. TABLE OF CONTENTS							
(X)	SEC.	DESCRIPTION	PAGE	(X)	SEC.	DESCRIPTION	PAGE
PART I - THE SCHEDULE				PART II - CONTRACT CLAUSES			
<input checked="" type="checkbox"/>	A	SOLICITATION/CONTRACT FORM		<input checked="" type="checkbox"/>	I	CONTRACT CLAUSES	I.1
<input checked="" type="checkbox"/>	B	SUPPLIES OR SERVICES AND PRICES/COSTS	B.1	PART III - LIST OF DOCUMENTS, EXHIBITS AND OTHER ATTACH.			
<input checked="" type="checkbox"/>	C	DESCRIPTION/SPECS/WORK STATEMENT	C.1	<input checked="" type="checkbox"/>	J	LIST OF ATTACHMENTS	J.1
<input checked="" type="checkbox"/>	D	PACKAGING AND MARKING	D.1	PART IV - REPRESENTATIONS AND INSTRUCTIONS			
<input checked="" type="checkbox"/>	E	INSPECTION AND ACCEPTANCE	E.1	<input checked="" type="checkbox"/>	K	REPRESENTATIONS, CERTIFICATIONS AND	K.1
<input checked="" type="checkbox"/>	F	DELIVERIES OR PERFORMANCE	F.1			OTHER STATEMENTS OF OFFERORS	
<input checked="" type="checkbox"/>	G	CONTRACT ADMINISTRATION DATA	G.1	<input type="checkbox"/>	L	INSTRS., CONDS., AND NOTICES TO OFFERORS	L.1
<input checked="" type="checkbox"/>	H	SPECIAL CONTRACT REQUIREMENTS	H.1	<input type="checkbox"/>	M	EVALUATION FACTORS FOR AWARD	M.1

NOTE: Item 12 does not apply if the solicitation includes the provisions at 52.214-16, Minimum Bid Acceptance Period.

12. In compliance with the above, the undersigned agrees, if this offer is accepted within **240** calendar days (60 calendar days unless a different period is inserted by the offeror) from the date for receipt of offers specified above, to furnish any or all items upon which prices are offered at the price set opposite each item, delivered at the designated point(s), within the time specified in the schedule.

13. DISCOUNT FOR PROMPT PAYMENT (See Section I, clause No. 52-232-8)	10 CALENDAR DAYS %	20 CALENDAR DAYS %	30 CALENDAR DAYS %	CALENDAR DAYS %
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14. ACKNOWLEDGMENT OF AMENDMENTS (The offeror acknowledges receipt of amendments to the SOLICITATION). For offerors and related documents numbered and dated:		AMENDMENT NO	DATE	AMENDMENT NO	DATE
		001	10 February 2010	003	26 February 2010
		002	24 February 2010	004	9 March 2010
		005	20 May 2010	006	26 May 2010
		007	8 June 2010		

15. NAME AND ADDRESS OF OFFEROR <b>Raytheon Technical Services Company, LLC 555 Forge River Road, Suite 120 Webster, Texas 77598</b>	CODE <b>08-202-3276</b>	DUNS <b>08-202-3276</b>	FACILITY <b>IVNE3</b>	16. NAME AND TITLE OF PERSON AUTHORIZED TO SIGN <b>John M. Evans Director, Contracts</b>
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15B. TELEPHONE NO. (Include area code) <b>(b) (4)</b>	15C. CHECK IF REMITTANCE ADDRESS IS DIFFERENT FROM ABOVE - ENTER <input checked="" type="checkbox"/> SUCH ADDRESS IN SCHEDULE	17. SIGNATURE <i>[Signature]</i>	18. OFFER DATE <b>16 June 2010</b>
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**AWARD (To be completed by Government)**

19. ACCEPTED AS TO ITEMS NUMBERED	20. AMOUNT	21. ACCOUNTING AND APPROPRIATION
22. AUTHORITY FOR USING OTHER THAN FULL AND OPEN COMPETITION <input type="checkbox"/> 10 U.S.C. 2304(c) ( ) <input type="checkbox"/> 41 U.S.C. 253(c) ( )	23. SUBMIT INVOICES TO ADDRESS SHOWN IN (4 copies unless otherwise specified) ITEM Clause G.3	
24. ADMINISTERED BY (If other than item 7) CODE	25. PAYMENT WILL BE MADE BY NASA Shared Services Center (NSSC) Financial Management Division(FMD) - Accounts Payable Bldg. 1111, C. Road Stennis Space Center, MS 39529	

26. NAME OF CONTRACTING OFFICER (Type or print) <b>Cynthia W. Maclean</b>	27. UNITED STATES OF AMERICA <i>[Signature]</i> (Signature of Contracting Officer)	28. AWARD DATE <b>7/30/2010</b>
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## **A.1. DETAILED TABLE OF CONTENTS**

This solicitation/ contract consists of the following Sections:

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### **SECTION B — SUPPLIES OR SERVICES AND PRICES/ COSTS**

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B.3	Contract Value	B.1
B.4	Reserved	B.2
B.5	Minimum and Maximum IDIQ Ordering Value	B.2
B.6	Contract Funding	B.3

### **SECTION C— DESCRIPTION/ SPECIFICATION/ WORK STATEMENT**

Section & Number	Title	Page
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C.2	Contract Management and Administration	C.7
C.3	Common Facilities Support	C.18
C.4	NBL-Unique Support	C.23
C.5	SVMF-Unique Support	C.26
App. A	Acronyms	C.29
App. B	Definitions	C.30
App. C	Performance Standards	C.31

### **SECTION D— PACKAGING AND MARKING**

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### **SECTION E— INSPECTION AND ACCEPTANCE**

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E.3	Quality Assurance Surveillance Plan	E.1

## SECTION F— DELIVERIES OR PERFORMANCE

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F.7	Phase In and Phase Out	F.5

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J-21	Stock Equipment List

**[END OF SECTION]**

## SUPPLIES OR SERVICES AND COST/PRICES

### B.1. Listing of Clauses Incorporated by Reference

No clauses incorporated by reference in Section B.

#### END OF CLAUSES INCORPORATED BY REFERENCE

### B.2. Supplies and/or Services to be Furnished

The contractor shall provide all resources and services (except as may be expressly stated in this contract as furnished by the Government) necessary to operate, maintain, and provide sustaining engineering for the Neutral Buoyancy Laboratory, the Space Vehicle Mockup Facility, and the Logistics and Mockup Facility, in accordance with the Statement of Work in Section C.

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 perform phase-in period activities, in accordance with the Phase-in Plan (Attachment J-07).

This is a performance based, cost reimbursable type of contract. The contract performance will be measured in accordance with the Award/Incentive Fee Plan (Attachment J-11).

- (a) This contract contains a cost-plus award/incentive fee (CPAF/IF) core requirement and indefinite delivery/indefinite quantity (IDIQ) portion.
- (b) Statement of Work sections 3.4, 4.4, and 5.4 are the IDIQ portions of the contract, and will be covered by the terms and conditions of an IDIQ type contract.

(End of clause)

### B.3. Contract Value

#### (a) Contract value for CPAF/IF core (baseline) requirements:

The estimated cost of this contract is (b) (4). The maximum available award fee, excluding base fee, if any, is \$ (b) (4). The base fee is \$0. The target incentive fee is \$ (b) (4). Total estimated cost, maximum award fee, base fee, and target incentive fee is (b) (4). This is broken out as follows:

#### Costs

1. Total Estimated Costs

#### Award Fee

2. Maximum Award Fee (75% of Total Fee)

#### Incentive Fee

3. Minimum
4. Target (25% of Total Fee)
5. Maximum (target multiplied by 1.5)

Share Ratio Underrun: 85/15

Share Ratio Overrun: 75/25

(b) (4)

**Total Fee Range**

6. Minimum (3)
7. Maximum (2+5)

(b) (4)

**Target Total Cost-Plus-AF/IF (1+2+4)**

(b) (4)

**(b) Contract value for IDIQ requirements:**

The total estimated cost of issued delivery orders is \$ (b) (4) exclusive of the award fee of \$ (b) (4) and incentive fee of \$ (b) (4). The total estimated cost and award/incentive fee of the issued delivery orders is (b) (2).

The IDIQ value will be updated periodically as IDIQ delivery orders are issued or revised.

**(c) Contract value for the Firm Fixed Price contract phase-in requirements:**

The total firm fixed price of the phase-in of this contract is (b) (2). The contract phase-in period is August 1, 2010 through September 30, 2010.

**(d) Total contract value is derived by adding the values in paragraphs a-c above as follows:**

Supplies/Services	Estimated Cost/FFP	Maximum Award Fee	Target Incentive Fee	Total
Phase-in Period (Fixed Price)	(b) (2)			
Baseline Requirements				
Indefinite Delivery – Indefinite Quantity Orders Issued				
<b>Total Contract Value</b>	(b) (2)			\$155,334,869

\*Values are rounded

(End of Clause)

**B.4. Reserved**

**B.5. Minimum and Maximum IDIQ Ordering Value**

- (a) The guaranteed minimum quantity of work initiated through the issuance of delivery orders, shall be \$100,000. This amount includes both cost and fee. There will be no further obligation on the part of the Government to issue additional delivery orders thereafter.
- (b) The total maximum value which may be ordered under this contract is not to exceed (NTE) \$57,000,000. This NTE 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 that specified in the delivery orders issued during the period of the contract.

(End of clause)

**B.6 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 all NSOC efforts and covers the following estimated period of performance: August 25, 2016.
- (b) An additional amount of \$ (b) (4) is obligated under this contract for payment of fee.

(End of clause)

Note: Clause B.6 reflects the total cost and fee funded on this contract for all work (core, IDIQ, and phase-in requirements). Funding for the FFP phase-in work was placed in the total amount allotted to cost. Therefore, funding in the amount of \$149,353 for the FFP phase-in work is included in the total amount allotted to cost shown in paragraph (a) of this clause.

[END OF SECTION]



## **“DIRECTORATE NAME CHANGE**

**The Missions Operations Directorate (MOD) changed its name to the Flight Operations Directorate (FOD) in Government fiscal year 2014. Please note that any reference to MOD in existing contract should be understood to reference FOD. Additionally, any document referencing mail code “DX” should be understood to reference “CX.””**

## **SECTION C**

### **DESCRIPTION/SPECIFICATIONS/STATEMENT OF WORK**

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#### **1.0 NBL SVMF Operations Contract Overview**

- 1.1 Description of Programmatic Support
- 1.2 Description of Mission Operations Facilities
- 1.3 Activities performed at the NBL and SVMF

#### **2.0 Contract Management and Administration**

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- 2.2 Formal Contract Communications
- 2.3 Subcontracts
- 2.4 Organizational Conflict of Interest (OCI)
- 2.5 Technical Metrics
- 2.6 Logistics
- 2.7 Collaboration
- 2.8 Security
  - 2.8.1 Emergency Preparedness
  - 2.8.2 Export Control
- 2.9 Information Technology
  - 2.9.1 Information Technology Plan
  - 2.9.2 Information Technology Services
  - 2.9.3 Information Technology Security
- 2.10 Documentation Management
- 2.11 Safety and Health Management
- 2.12 Environmental and Energy Conservation
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- 2.14 Risk Management
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- 2.16 Configuration Management
  - 2.16.1 Technical Change Management
  - 2.16.2 Technical Change Process
  - 2.16.3 Technical Problem Process
  - 2.16.4 Contract Change Management
- 2.17 Property
  - 2.17.1 Government Property

- 2.17.2 Contractor-Owned Capital Property
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- 2.19 Training Coordination and Records
- 3.0 Common Facilities Support
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    - 3.1.4 Real-time Mission Support
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  - 3.2 Sustaining Engineering and Maintenance
    - 3.2.1 Facility and Installation Maintenance
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      - 3.6.1.1 Pre-event Safety
      - 3.6.1.2 Health and Safety
    - 3.6.2 Facility Manager
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- 4.0 NBL-Unique Support
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    - 4.1.2 Operations Control
    - 4.1.3 Event Support
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  - 4.2 Sustaining Engineering and Maintenance
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  - 4.4 IDIQ Projects
  - 4.5 External Customers
  - 4.6 Support Services
    - 4.6.1 Safety
    - 4.6.2 Facility Manager
    - 4.6.3 Training
- 5.0 SVMF-Unique Support
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    - 5.1.1 Scheduling
    - 5.1.2 Operations Control



- 5.1.3 Event Support
- 5.1.4 Real-time Mission Support
- 5.1.5 Tours, Media and Special Event Support
- 5.1.6 Flight Computer Support
- 5.2 Sustaining Engineering and Maintenance
  - 5.2.1 Facility and Installation Maintenance
- 5.3 Baseline Projects
- 5.4 IDIQ Projects
- 5.5 External Customers
- 5.6 Support Services
  - 5.6.1 Safety
  - 5.6.2 Facility Manager
  - 5.6.3 Training

#### Appendices

- Appendix A: Acronyms
- Appendix B: Definitions
- Appendix C: Performance Standards

## **1.0 Neutral Buoyancy Laboratory (NBL)/ Space Vehicle Mockup Facility (SVMF) Operations Contract (NSOC) Overview**

Section 1 serves as an information-only introduction to the Statement of Work (SOW).

The Neutral Buoyancy Laboratory (NBL) and Space Vehicle Mockup Facility (SVMF) are key Agency assets that support human space flight training and operations. Both facilities support the Space Shuttle, International Space Station (ISS) and other future space programs. Both are operated by JSC's Mission Operations Directorate (MOD).

The NBL SVMF Operations Contract (NSOC) specifies technical, managerial, and administrative work needed to ensure the availability, integrity, and reliability of mission operations facilities supporting NASA human spaceflight programs requiring mission operations support. For this contract, "facility" is defined as the systems and subsystems of integrated hardware and software used in the preparation for and performance of mission operations. The term "facility" does not refer to "brick and mortar" buildings or building functions, such as lighting, environmental control, and janitorial services.

The objectives of this contract are to:

Acquire support (labor and expertise) to ensure the continuing safe operation of the facilities. Increase opportunities for synergy across all functions, processes and systems. NASA will collaborate with the Contractor on developing technical and procedural innovations that improve safety, enhance quality, ensure user satisfaction, and reduce cost.

Provide cost savings to MOD by developing external customer utilization of current and future excess capacity in the facilities.

### **1.1 Description of Programmatic Support**

The NBL and SVMF currently support the Space Shuttle Program (SSP), the International Space Station Program (ISSP) and Constellation Program (CxP). Mission operations facilities supporting the CxP are under continuous development in concert with CxP formulation and implementation. NSOC applies to the facilities for all three of these programs, and any other programs requiring mission operations facility support.

### **1.2 Description of Mission Operations Facilities**

The following paragraphs describe the mission operations facilities that are within the scope of NSOC.

The NBL is a part of the Sonny Carter Training Facility (SCTF), located approximately 5 miles from Johnson Space Center (JSC). The NBL (Buildings 920N, 920L and 925) provides a unique environment to simulate micro-gravity using underwater neutral buoyancy techniques. It provides capabilities for astronaut training, real-time mission trouble-shooting, extravehicular activity (EVA) procedure development and verification, flight hardware development and verification, water survival training, and support of external users. The NBL has high-visibility to agency management and the general public due to its importance to NASA's mission and the highly hazardous operations performed there. The NBL also includes a Logistics & Mockup Facility (LMF) that provides fabrication, repair, and upgrade of mockups for both the NBL and SVMF. In addition, the NBL uses Building 925 as a mockup storage building.

The NBL contains a 202-foot long, 102-foot wide, and 40-foot deep-water tank that can simultaneously support two separate test operations. The tank has standard filtering, chlorinating, and pumping subsystems as a part of its water treatment system. Additional NBL systems include an environmental control system, a breathing gas system, a closed circuit television system, a communications system, multiple crane systems, two robotic manipulator systems, a surface-supplied diving system, and a diver voice communication system. The NSOC Contractor is responsible for providing all consumables for operating, and maintaining these systems. The NBL also contains a hyperbaric treatment chamber and hypobaric chamber. The facility has in its inventory over 1000 separate mockups, representing various SSP, ISSP, CxP and past program flight hardware. The NSOC Contractor is responsible for maintaining the configuration of the mockups as well as conducting their preventive and repair maintenance.

The buildings contain administrative space for the NSOC Contractor's management, technical, and dive support functions. Space for NBL civil service personnel and other organizations' contractors such as

Extravehicular Activity (EVA) suit support functions, EVA tool support functions, test control room support, utility support, test safety support, quality assurance support, and medical support are also provided for in the facility. The facility also contains a clean area. This clean area is available for use by the Contractor.

The SVMF is located in Building 9N and 9NW at JSC. It uses full-scale vehicle mockups, flight-like trainers, engineering test articles and environmental simulators to provide a unique environment that closely emulates the physical characteristics of "crewed" spacecraft. It provides capabilities for astronaut training, real-time mission trouble-shooting, mission development, flight procedures development and verification, flight vehicle sustaining engineering, developmental engineering analysis, and support to external users. The SVMF also has visibility to NASA management, the media and the general public. The SVMF includes a "light shop" in Building 59 used for mockup maintenance and outfitting.

The SVMF high bay area is ~57 feet high and covers ~73,125 square feet. Two overhead bridge cranes each have one 20-ton capacity hook and one 5-ton capacity hook. There is pressurized breathing air, for use in space suits, available from both bottles and human-rated air pumps located in the building. Two large changing rooms are located in the central part of the building. Audio and video links exist between most mockups in the SVMF and other buildings on site. An elevated enclosed walkway along the north wall provides visitors a view of the daily activities. The facility has in its inventory over 50 separate mockups and trainers, representing various SSP, ISSP, CxP and past program flight hardware.

The "mockups" used in the NBL and SVMF are full-scale (1:1) models of spacecraft or spacecraft components. Depending on their purpose, mockups can vary from "low fidelity", which models the basic volume and shape of the spacecraft/component, to "high fidelity" which very closely matches the "look and feel" of the spacecraft/ component. Mockups can be built to last briefly (e.g., for short-term engineering evaluations) or for many years. NBL mockups are usually made from stainless steel, composites and plastics. SVMF mockups often use steel and aluminum in addition to composites and plastics.

Both the NBL and SVMF support external customers; i.e., those from organizations outside of MOD. These include other JSC Directorates (e.g., Engineering, Life Sciences, Public Affairs), other NASA field centers (e.g., KSC, MSFC), other government agencies (e.g., U.S. Coast Guard) or commercial companies. Examples of this type of support include use of the NBL for submerged operations or water survival training, use of the SVMF for KSC ground crew proficiency training, and the use of both facilities for media and educational events.

### 1.3 Activities Performed at the NBL and SVMF

NSOC personnel provide facility operational support, including scheduling, configuration, set-up, anomaly resolution, and tear-down for each activity (SOW Sections 2 through 5 describe the detailed NSOC requirements). In contrast, the actual activity (e.g., training) is performed by non-NSOC personnel. For example, for a suited NBL training event NSOC personnel will: configure the mockups prior to the event; provide the required safety and utility divers, plus associated support personnel; provide system operators; and resolve any real-time anomalies. The actual event will be performed by suited subjects (e.g., Astronauts) and Test Conductors (NASA or non-NSOC contractors). Additionally, the event will be supported by non-NSOC personnel from Safety, Quality, Medical and EVA tools and suits.

- a. Astronaut and Cosmonaut Training – The NBL and SVMF are used to train personnel to conduct EVA and intravehicular activities (IVA), either as crew members or members of the ground team. Such training often includes communication among the on-orbit crew members, as well as between on-orbit and ground personnel.

The NBL supports training for planned EVAs, contingency EVAs, and their associated robotic operations (e.g., remote manipulation of crewmembers and hardware). Astronauts and Cosmonauts receive EVA training operations using underwater mockups while wearing pressurized Extravehicular Mobility Units (EMU's) or scuba. Suited water events are generally 4 to 6 hours in length. Other EVA-related training conducted at the NBL is performed "unsuited" and uses "one gee" (1-g) mockups located on the pool deck or in the high bay.

The SVMF supports training for a wide variety of vehicle systems and activities using mockups, engineering test articles and part-task trainers (PTT). Most of the training performed in the SVMF focuses on IVA or 1-g activities that occur onboard the Shuttle or ISS, such as crew systems operations, ISS emergency response, and Shuttle emergency egress. A limited amount of EVA training is also conducted in the SVMF in a 1-g environment. Such training includes use of ISS airlock systems, ISS pressurized "quick disconnects," and Space Shuttle tile repair tools.

- b. Real-time mission support – The NBL and SVMF are used to provide real-time support within hours of a request to support troubleshooting of on-orbit anomalies (e.g., equipment malfunction requiring EVA).
- c. Mission development – The NBL and SVMF are used to develop approaches and products for future mission activities. For example, at the NBL, a scuba evaluation of EVA hardware or rough procedures might be performed. At the SVMF, it might begin

with a basic walk through of the anticipated operations inside one or more mockups to “get a feel” for the associated volumetric and spatial considerations.

- d. Timeline/Procedure development and verification – The NBL and SVMF are used to develop timelines and procedures to be used by crew members and ground personnel to accomplish on-orbit tasks and objectives.

Developers of flight hardware, training organizations, flight controllers and astronauts utilize mockups and capabilities in both facilities to test out and verify the flight procedures necessary to accomplish tasks on-orbit.

- e. Vehicle and flight systems development – The NBL and SVMF are used to support development of new or modified equipment for existing flight vehicles and systems.
- f. Developmental engineering analysis – The NBL and SVMF provide tools, facilities, and personnel for conducting engineering tests.

At the NBL, the water tank and high bays are used to provide a neutrally buoyant and 1-g environment for evaluating EVA and IVA capabilities.

At the SVMF, environmental simulators (particularly the Precision Air Bearing Facility, the Air Bearing Floor, the Partial Gravity Simulator, or other tools) are used to conduct engineering simulations and tests.

- g. Mockup design and fabrication – The NBL and SVMF utilize mockups and trainers to accomplish their functions. These mockups are built/modified “in-house” by NSOC or sourced from external suppliers (e.g., Ames Research Center).

The LMF is an extensive machine shop that contains metal fabrication machines, wood shop tools and supporting equipment for fabrication, assembly and repair of mockups. Building 59 is a “light shop” that contains a limited number of metalworking tools, woodworking tools and supporting equipment. In these shops, nearly all the work is performed by NSOC personnel.

- h. External Customers – The NBL and SVMF are used to support external customers’ needs, as appropriate, within available capacity and priorities. The Government is working to streamline existing processes and policies in order to facilitate recruitment and retention of external customers.
- i. Public Affairs – The NBL and SVMF are used to facilitate communication of the NASA mission to the public. This public affairs function includes tours, media events, and public outreach.

## **2.0 Contract Management and Administration**

All scope within this SOW shall be considered baseline unless specifically identified as IDIQ.

The Contractor shall provide leadership, management oversight, direction and problem resolution for all functions performed on the contract. The Contractor shall:

- a. Plan, organize, direct and control all contractor activities required to accomplish the requirements of this SOW.

- b. Provide work authorization, direction, and coordination to Contractor personnel.
- c. Manage contract guidelines, budgets, schedules.
- d. Manage financial and contract performance.
- e. Prepare/update the program plan, establish program performance metrics, review/report program performance.
- f. Perform contract administration and subcontract management.
- g. Provide functional management and administration of all Contractor and NASA policies, standards and procedures.

The Contractor shall provide a management interface resident in both the NBL and SVMF who is authorized to direct day-to-day work, coordinate with NASA on contractual matters, respond to questions and action items from NASA and resolve problems. The interfaces or designees shall be within verbal contact 24 hrs/day, 365 days/year.

The Contractor shall:

- a. Perform continuous improvement in accordance with the Continuous Improvement Plan (DRD-NSOC-05).
- b. Collaborate with NASA and other contractors on strategic and innovative solutions for current and future operations and processes leading to increased safety, cost reductions, and improved operational efficiency.
- c. Perform project planning, implementation, measurement of results and reporting, for NASA-approved process improvements.

The Contractor shall organize and institute integrated processes and tools for managing the products and services specified in this SOW, in accordance with the Management Plan (DRD-NSOC-02).

The Contractor shall accept/utilize existing NSOC hardware, software and documentation unless otherwise agreed with NASA.

The Contractor shall capture the safety, technical, management, financial, and administrative lessons-learned at the NBL and SVMF. The Contractor shall:

- a. Document the problem, the resolution, the resulting lesson(s)-learned and any related recommendations or forward-work for each entry.
- b. Consolidate all lessons-learned in a searchable electronic format that is accessible to NASA. Incorporate all existing lessons-learned data into this tool.
- c. Review all documented lessons-learned at least once each year to assess the status of previous recommendations and forward work, identify patterns, and look for correlations.

The Contractor shall provide a tracking system and associated processes that ensures open actions are tracked and closed per the priorities of NASA and NSOC Management. These shall be developed in accordance with the Action Item DRD (DRD-NSOC-42).

The contractor shall provide a self-evaluation of its performance in meeting all contract requirements during the designated evaluation period in accordance with the Management Review Report (DRD-NSOC-32).

The contractor shall capture all records and data within this SOW in accordance with NBL & SVMF Databases (DRD-NSOC-37) and the Records Management Plan (DRD-NSOC-27).

The contractor shall provide a weekly summary of contractor performance in accordance with SVMF and NBL Weekly Report (DRD-NSOC-36).

## **2.1 Financial and Contract Performance**

The Contractor shall provide and maintain financial and contract performance management data for the planning, tracking, accumulation and monitoring of contract cost and contract performance to meet the budgeting, cost reporting, billing, and disclosure requirements of the contract.

The Contractor shall report the following financial and management data. These reports shall comply with the most current version of NPR 9501.2, NASA Contractor Financial Management Reporting for procedures and guidelines.

- a. Contractor Work Breakdown Structure (WBS) and SOW Dictionary (DRD-NSOC-01)
- b. Wage/Salary and Fringe Benefit Data (DRD-NSOC-40)
- c. Workforce Reports (DRD-NSOC-38)
- d. NF533M Cost Reporting with Supplemental Customer Cost Reporting (DRD-NSOC-39)
- e. Other business management and administrative reports, such as financial planning, historical information, technical support information, and budget impacts of proposed changes, as required in any pertinent DRD.

The Contractor shall provide and adhere to a Fiscal Year (FY) Operating Plan and Planning, Programming, Budgeting, and Execution (PPBE) as required in DRD-NSOC-08.

## **2.2 Formal Contract Communications**

Formal communications between NASA and the Contractor shall be in accordance with Clause G.5, Technical Direction.

## **2.3 Subcontracts**

The Contractor shall institute a plan for small business subcontracting, and provide associated reports, in accordance with the Small Business Subcontracting Plan and Reports (DRD-NSOC-09).

The Contractor shall perform subcontract administration in accordance with the Management Plan (DRD-NSOC-02).

## **2.4 Organizational Conflict of Interest (OCI)**

The Contractor shall institute processes to avoid, neutralize, and mitigate organizational conflicts of interest (OCI) in accordance with the Contractor Organizational Conflicts of Interest (OCI) Avoidance Plan (DRD-NSOC-25).

## **2.5 Technical Metrics**

The Contractor shall develop, implement and maintain a set of technical performance metrics aligned with NSOC functional areas in accordance with Technical Metrics Plan and Reports (DRD-NSOC-29).

The Contractor shall utilize the technical metrics to formulate technical and managerial strategies and tactics for optimizing work and improving performance.



The Contractor's systems for documenting and managing technical metrics and tracking associated measurement values shall support electronic exchange of information with NASA as specified in the applicable Data Requirements Descriptions (DRDs).

## **2.6 Logistics**

The Contractor shall provide logistical support for all the activities specified in this SOW. The Contractor shall:

- a. Plan and acquire raw materials, consumables and equipment to be used in the facility (upon CO approval).
- b. Stock and retrieve spare parts and equipment (reference Attachment J-21).
- c. Maintain and report an up-to-date inventory of all equipment and supplies for the facility, the current location and (where applicable) the operating condition.
- d. Control the check-in and check-out of equipment and supplies. The facilities currently use software which is available for use to control equipment.
- e. Coordinate shipping, receiving and transportation of equipment and materials between NASA facilities. Inspect and receive all Contractor Acquired Property (CAP) and Contractor Furnished Equipment (CFE). Provide packing, packaging, and handling of all outgoing property. Generate the shipping and property control documents required to support these functions.
- f. Track usage of all assigned Government vehicles.
- g. Provide the detection, evaluation and handling of nonconforming items.

## **2.7 Collaboration**

The Contractor shall:

- a. Cooperate with other organizations from outside the contract that are tasked to provide equipment or support to the facilities, providing support as requested by NASA.
- b. Establish Associate Contractor Agreements (ACAs) as required by NASA (reference Clause H.15, Associate Contractor Agreement for NSOC Activities). The ACAs shall specifically address all Contractor roles, responsibilities, expectations, and a remedy process for problem resolution. Additionally, the Contractor shall enter into ACAs with other contractors who depend on NSOC products to complete timely and quality work for NASA. All ACAs shall be submitted to the NSOC Contracting Officer's Technical Representative (COTR).

## **2.8 Security**

The Contractor shall comply with all applicable Federal, Agency and Center security requirements.

The Contractor shall provide industrial, physical, administrative, information and IT security.

The Contractor shall protect sensitive information as well as Privacy Act information, proprietary data, International Traffic in Arms Regulation (ITAR) data and technology embargoed from foreign dissemination, and IP data that is transmitted, stored, or processed in the facilities and systems in accordance with applicable law and NASA policy.

### **2.8.1 Emergency Preparedness**

The Contractor shall institute and implement processes and procedures to ensure emergency preparedness and disaster recovery, in accordance with the Emergency Preparedness and Disaster Recovery Plan (DRD-NSOC-26).

### **2.8.2 Export Control**

The Contractor shall adhere to the most current version of export control requirements in NPD 2190.1, NASA Export Control Program and J29W-01, JSC Export Compliance Work Instruction.

## **2.9 Information Technology**

### **2.9.1 Information Technology Plan**

The Contractor shall institute processes for Information Technology (IT) planning and management, as defined in the most current version of NPD 2800.1, Managing Information Technology for each facility.

The Contractor shall comply with Federal and NASA IT planning and reporting regulations and requirements in accordance with IT Plan and Reports (DRD-NSOC-28).

### **2.9.2 Information Technology Services**

The Contractor shall perform all activities associated with the development and operation of the IT infrastructure across the contract:

- a. Accept/develop and maintain management and technical information databases needed to execute the contract. in accordance with the NBL and SVMF Databases DRD (DRD-NSOC-37).
- b. Accept/Develop and maintain NBL, SVMF and LMF web pages and databases.
- c. Coordinate with the NASA IT contractor for procurement, installation, administration and maintenance on NASA-supplied equipment..
- d. Procure, install, administer, operate and maintain all IT hardware and software that is not provided by the NASA IT contractor.
- e. Perform software license tracking.
- f. Provide for and maintain incremental and full back-ups of all systems for which the Contractor is responsible.
- g. Develop other IT-related documentation, as requested.
- h. Interface with NASA-provided IT resources and systems (e.g., Integrated Collaborative Environment (ICE)).

The Contractor shall provide and update IT information in the NASA System for Registering and Tracking Applications and Websites (STRAW). Additionally, the Contractor shall provide and update IT information for the NASA Data Center and Network worksheets in accordance with the IT Plan and Reports (DRD-NSOC-28).

### **2.9.3 Information Technology Security**

The Contractor shall implement an IT security program, in compliance with the most current versions of NPD 2800.1, Managing Information Technology and NPD 2810.1, NASA Information Security Policy.

The Contractor shall submit an IT systems security plan in accordance with IT System Security Plan (DRD-NSOC-43).

The Contractor shall provide on-call support to respond to IT Security actions requiring immediate attention 24 hrs/day, 365 days/yr.

## **2.10 Documentation Management**

The Contractor shall:

- b. Maintain documents (e.g., reports and equipment drawings) and work instructions to ensure controlled identification, versioning, retention, archiving, and access in accordance with the Configuration Management Plan (DRD-NSOC-03).
- b. Facilitate updates and reviews of documents on Contractor and NASA Quality Management System (QMS) master lists. Provide document support (e.g., word processing, document formatting) and configuration management for all NBL and SVMF documents.
- c. Generate new documents to support contractual activities.
- d. Ensure that only configuration-controlled and approved documents are utilized to support operations

The Contractor shall provide and maintain an electronic documentation library that:

- c. Is web-accessible through the JSC domain.
- b. Allows downloading of NSOC documents.
- c. Provides native formats upon NASA request.

The Contractor shall accommodate approval via electronic signature for documents requiring NASA approval (e.g., Type 1 DRDs and CRs).

The Contractor shall ensure that the review schedule for Type 1 documents includes sufficient time for NASA review and concurrence prior to the scheduled delivery date.

The Contractor shall deliver DRDs by the date specified in the DRD. However, if the delivery date falls on a weekend or NASA holiday, then the Contractor shall deliver the DRD no later than the next NASA business day.

## **2.11 Safety and Health Management**

The Contractor shall develop, document, implement, and maintain a safety and health program in accordance with the most current version of JPR 1700.1, JSC Safety and Health Handbook.

The contractor shall comply with JSC and the SCTF safety program requirements, which are patterned to meet the intent of OSHA's Voluntary Protection Program (VPP).

In accordance with this safety and health program, the Contractor shall:

- a. Identify, mitigate and document all hazards related to the activities described in this SOW, as specified in NASA policies and in accordance with requirements for hazard reduction in the Safety and Health Plan (DRD-NSOC-17).

- b. Perform audits to verify that the NBL, SVMF and users are in compliance with all hazard controls and risk mitigations. Audits shall be of a statistically correct sample size and frequency to generate reliable results.
- c. Provide an annual Safety and Health Program Self-Evaluation (DRD-NSOC-18).
- d. Provide Monthly Safety and Health Metrics (DRD-NSOC-19).
- e. Implement system safety engineering tasks for flight and institutional program activities and products in accordance with the schedule and applicable flight and institutional requirements as documented in a System Safety Program Plan (DRD-NSOC-20).
- f. Provide lessons learned in accordance with the Lessons Learned Program Plan (DRD-NSOC-21).

The Contractor shall comply with the most current version of JPD 1710.1, Design, Inspection, and Certification of Pressure Vessels and Pressurized Systems.

The Contractor shall ensure that all users comply with the appropriate safety rules, regulations, documentation, and hazard analyses during all activities performed in the facility.

### **2.12 Environmental and Energy Conservation**

The Contractor shall provide data on affirmative procurement, waste reduction activity, energy efficient product procurement, and ozone depleting substances in accordance with Environmental and Energy Consuming Product Compliance Reports (DRD-NSOC-22).

### **2.13 Quality Assurance (QA)**

The Contractor shall establish and maintain a QA program that complies with the International Organization for Standardization (ISO) document American Society for Quality Control (ASQC) ISO-9001-2008 – Model for Quality Assurance in Design/Development, Production, Installation, and Servicing.

The Contractor shall:

- a. Perform hardware and software QA.
- b. Provide a quality plan for on-site and off-site resources within this contract and implement a peer review (i.e., QA designee) program as the primary method for all product assurance inspections in accordance with Quality Plan and Reports (DRD-NSOC-16).
- c. Collect and compile information derived from Contractor data (e.g., test results, analysis reports, inspection records, discrepancy data, nonconformance data, delivery logs, internal audits, work authorization documents) to demonstrate that the products and services delivered to NASA are in compliance with the requirements and specifications as specified in this contract. The delivery of the compliance information will be at the request of NASA, per the NASA surveillance plan.
- d. Report non-conformances in accordance with Non-conformance Record Template (DRD-NSOC-23).
- e. Share information in accordance with the Government Industry Data Exchange Program (GIDEP) and NASA Advisory Problem Data Sharing and Utilization Program Documentation and Reporting (DRD- NSOC-24).

The Contractor shall:

- a. Submit all manufacturing procurements to the NASA Quality Assurance Representative (QAR). This shall include the details of the procurement, drawing references, specifications, suppliers address, buy list and manufacturing schedule. If there are changes to the procurements they shall be submitted to the NASA QAR as well.
- b. Include the following statement on all procurements” The Government has the right to inspect and or test all line items of the contract as they deem necessary. These inspections or tests may be conducted anytime throughout manufacturing, testing, assembly through acceptance of the items.”

NASA dispositions all nonconforming products, except rework to specifications. The Contractor shall track and status all anomalies per Section 2.16.3, Technical Problem Process.

The Contractor may use the Receiving and Inspection Test Facility (RITF) training services for hand soldering, electrostatic discharge, and other special processes for personnel certification.

The Contractor shall conduct internal audits. In addition, process audits shall be performed at the request of the JSC Contracting Officer or the COTR to provide an assessment of processes to identify generic system anomalies and areas for improvement.

The Contractor shall coordinate equipment recalibration and maintenance to ensure that all equipment is fully functional, accurate and meets the following NASA certification requirements:

- a. The Contractor shall calibrate Contractor-owned inspection, measuring, and test equipment in accordance with ISO 10012:2003, Measurement Management Systems – Requirements for Measurement Processes and Measuring Equipment, and ANSI/NCSL Z540-1-1994, Calibration Laboratories and Measuring and Test Equipment.
- b. The Contractor shall calibrate Government-owned inspection, measuring, and test equipment in accordance with the most current version of JPR 1281.11, Control of Inspection, Measuring, and Test Equipment.

The Contractor shall maintain up-to-date calibration and maintenance records for all equipment, both Contractor and third-party

The contractor shall develop a systematic technique to designate certain trained and qualified maintenance, manufacturing, and test personnel to represent the quality assurance organization in performance of selected inspection functions. The quality control functions of the designees shall be performed as part of their regular duties. This technique shall be described in the Quality Plan and Reports (DRD-NSOC-16). This technique shall include the identification of hardware, fabrication processes, maintenance, manufacturing flow, and inspection points.

## **2.14 Risk Management**

The Contractor shall institute processes for risk management in compliance with the specifications in the most current version of NPR 8000.4, Risk Management Procedural Requirements and in accordance with the Risk Management Plan (DRD-NSOC-07).

## **2.15 Certification of Flight Readiness (CoFR)**

The Contractor shall provide facility integration and operations to ensure mission readiness of the facility to support the MOD Certificate of Flight Readiness (CoFR) process. The Contractor shall provide a Certificate of Flight Readiness Endorsement for all facilities for each mission, in compliance with DX-008 (Flight Readiness Review (FRR) Process Work Instruction).

## **2.16 Configuration Management**

The Contractor shall institute and document processes for managing the configurations of all NSOC responsible assets (e.g., hardware, software, data, documentation and displays), to

ensure controlled identification, versioning, and access, in accordance with the Configuration Management Plan (DRD- NSOC-03).

#### **2.16.1 Technical Change Management**

NASA owns the facility architecture and the requirements (i.e., signature approval) and is responsible for approving any changes to the facilities architecture or the requirements baseline. Where changes to the baseline introduce tradeoffs between existing facilities requirements and performance improvements, the COTR will be the deciding official with the authority to change or waive the facilities requirement, through the configuration management process.

The Contractor shall manage changes and corrections to NSOC products and processes, to ensure tracking, assessment, disposition, and controlled incorporation of proposed changes and corrections that constitute different or corrected facility functionality and performance.

The Contractor shall facilitate user access to the NSOC systems that enable management and tracking of changes and corrections by providing assistance to ensure user familiarity with functionality and administrative processes (e.g., user documentation, help feature, on-call support).

#### **2.16.2 Technical Change Process**

The Contractor shall manage and track technical change requests (CRs) and delivery orders (DOs) in accordance with work instruction DX-006, "DX Change Request Process" and the Change Control Process and Plan (DRD-NSOC-12).

The Contractor shall provide electronic access to the NSOC technical change management system for authorized NASA personnel and associated contractors. The NSOC change management system shall provide:

- a. Incorporation of existing CR and DO data for all facilities and systems covered in this SOW.
- b. Electronic submittal and authorization of CRs and DOs.
- c. Electronic web access to CRs/DOs and their current status from a centralized location that does not require an ID or password other than those used for the JSC domain.
- d. User interface with search criteria fields and selection lists.
- e. Electronic access control to CR and DO cost impact information.
- f. Sorting on specified fields.
- g. Reports generation.

#### **2.16.3 Technical Problem Process**

The Contractor shall provide a capability for the submittal, status, review, ranking, and reporting of discrepancies, including those in the existing discrepancy reporting (DR) system. The Contractor shall provide electronic read and write access to the anomaly data by authorized NASA and Contractor personnel. The Contractor shall provide the capability to export the above data in an industry standard format (e.g. Microsoft Excel). An existing system is available for use to meet these requirements.

The Contractor shall institute processes, procedures, and tools for the identification and documentation of specific corrections to NSOC products or processes (i.e., DRs) that are

necessary for compliance with functionality and performance requirements, in accordance with DX12-SLP-003, "Neutral Buoyancy Laboratory Discrepancy Reporting System Level Procedure" and OCC-W0023, "SVMF Discrepancy Report Work Instruction".

The Contractor shall provide electronic access by authorized NASA personnel and associated contractors to the NSOC system for managing DRs for the purpose of reviewing, planning, prioritizing, tracking, and measuring corrections for incorporation into deliveries.

The Contractor shall review DRs with NASA by providing a report listing and characterizing the DRs in the technical baseline for each facility

The Contractor shall plan DR corrections in accordance with NASA-provided guidance.

For DRs, the Contractor shall:

- a. Take responsibility for the discrepancy resolution, including existing discrepancies, for all facilities defined in this SOW.
- b. Track all sustaining and maintenance discrepancies of Contractor responsible hardware and software via a DR.
- c. Manage, track and correct all DRs written on the Contractor responsible hardware and software.
- d. Respond to DRs based on priority provided by the initiator or NASA.
- e. Provide facility-specific metric and project status reports on DR status for the facilities and systems defined in this SOW.
- f. Provide users with information on how to access this reporting system and its data.

#### **2.16.4 Contract Change Management**

The Contractor shall institute processes for managing changes to the contract baseline established on NSOC to enable tracking, assessment, disposition, and controlled incorporation of those changes by both the Contractor and NASA in accordance with the Contract Configuration Management Plan (DRD-NSOC-04).

#### **2.17 Property**

The integrated physical equipment and software that represent the facilities and systems defined in this SOW are classified as Government property.

"Contractor-acquired property" means property acquired, fabricated, or otherwise provided by the Contractor as a direct contract charge to NASA for performing a contract, and to which NASA has title (see Clause G.7, INSTALLATION-ACCOUNTABLE GOVERNMENT PROPERTY).

Attachment J-12, JSC On-site Installation Accountable Property, identifies the on-site Government property made available on a no-charge basis for use in performance of NSOC (see Clause G.7, INSTALLATION-ACCOUNTABLE GOVERNMENT PROPERTY).

##### **2.17.1 Government Property**

The Contractor shall document and maintain NSOC government property management processes and procedures in accordance with the Government Property Management Plan (DRD-NSOC-11).

The Contractor shall provide custodians to input and manage data in the Government's property tracking system for property provided under this contract. The Contractor shall track



and be accountable for all Contractor-acquired Government property with its own tracking system. The Contractor shall provide reports and inventories in accordance with Reports Required for Logistics Operations (DRD-NSOC-15).

The Contractor shall designate a property administrator and point-of-contact for NSOC Government property administration and management.

#### **2.17.2 Contractor-Owned Capital Property**

The Contractor shall track Contractor-owned capital property separately from Government property.

#### **2.18 Equipment Replacement/Obsolescence**

The Contractor shall provide and maintain a plan to prevent the obsolescence of deployed and utilized NSOC assets (hardware and software), accounting for all variables that affect the lifetime of assets (e.g., service agreements, component reliability, software licenses.), in accordance with the Maintenance Plan (DRD-NSOC-14).

The Contractor shall utilize and comply with the established technical change management process (Section 2.16 of this SOW) for planning and preparing efforts to rectify or prevent obsolete assets.

The Contractor shall define equipment replacement content within the FY Operating Plan and PPBE (DRD-NSOC-08)

#### **2.19 Training Coordination and Records**

The Contractor shall implement and maintain a system to establish, track, and status all NSOC training records to ensure completeness and timeliness of certifications and other required training.

The Contractor shall:

- a. Provide advanced notification of required training (including recertifications and yearly center-wide training) for all NSOC personnel.
- b. Provide advanced notification of recertifications involving NSOC provided training for non-NSOC personnel.
- c. Coordinate training and certification support to NSOC instructors.
- d. Ensure that all training records are accurate and up-to-date.
- e. Provide input and recommendations to current certification processes/requirements, and program/facility/individual training plans.

### **3.0 Common Facilities Support**

The requirements in this section are common to both the NBL and SVMF. Any facility-unique additions to these requirements are discussed in Sections 4.0 or 5.0 of this SOW.

The Contractor shall manage, develop, modify, sustain and operate all facilities and supporting functions defined in this SOW. The Contractor shall ensure the availability, integrity and reliability of these facilities.

The Contractor shall provide management and control of the facility hardware, software and data configurations for the purpose of ensuring the facilities are ready to support the flight/mission manifests.

The Contractor shall adhere to the standards and processes specified in the most current version of JSC-63756, Mission Operations Directorate Software Management Plan (SMP) for all MOD software and supporting data files. For existing software and supporting data files that are currently in the maintenance phase, MOD can grant a waiver to use a subset of the SMP or a previous SMP version; the Contractor shall be responsible for requesting such waivers for the affected software and supporting data files.

### **3.1 Operations**

#### **3.1.1 Scheduling**

For all NBL and SVMF events, the Contractor shall:

- a. Coordinate, schedule and obtain NASA approval.
- b. Ensure there are no conflicts between individual events, or between individual events and activities necessary to operate/maintain the facilities.
- c. Confirm that the necessary equipment and NSOC personnel are available. If the necessary personnel or equipment are unavailable or out of service, the Contractor shall notify the requestor and reschedule the event.

#### **3.1.2 Operations Control**

The Contractor shall:

- a. Serve as the JSC point of contact for all operations within the facilities.
- b. Provide emergency and safety coordination.
- c. Provide cognizance of, and obtain NASA approval for, all non-NSOC work in operational areas.
- d. Monitor and control access into the facility in compliance with JSC Security rules and policies.
- e. Serve as the point of contact and notify NASA and contract management when out-of-family (off-nominal) events occur in the facility (e.g., close calls, mishaps, security breaches, critical DRs).
- f. Staff the Operations Control Center (OCC) desk between the hours of 7AM and 5PM local time on all JSC work days (Monday – Friday). Provide additional OCC operation outside these hours upon request by NASA. (Reference SVMF-OCC-M0010, “SVMF Operations Control Center Handbook” and NBL-OCC-M003, “NBL Operations Control Center Procedures”)
- g. Collect performance feedback from all facility users and report the results to NASA in accordance with Daily Reports (DRD-NSOC-31).
- h. Provide a daily report of NBL in-water activities in accordance with the NBL In-water Activity Data Pack (DRD-NSOC-34).

#### **3.1.3 Event Support**

The Contractor shall configure the facilities to support all scheduled events and operate requested facility equipment in support of each event (e.g., breathing gas systems).

The Contractor shall verify the functionality of all equipment prior to the start of an event (e.g., ensure batteries are fully charged, equipment functions as expected, and equipment does not have visible damage). Exceptions can be made for equipment provided by non-NBL/SVMF entities over which the facility has no control (e.g. Class-III hardware, instructor-provided hardware).

The Contractor shall troubleshoot and resolve equipment or operational anomalies (e.g., tour interrupts a class at the SVMF) in real-time wherever possible, in support of the event.

The Contractor shall support all events as required by other sections of this SOW or reference documents.

The Contractor shall operate and maintain new mockups, trainers and systems upon NASA acceptance.

#### **3.1.4 Real-time Mission Support**

The Contractor shall activate and configure the facility, as requested by NASA (e.g., nights, weekends, holidays), to support ongoing spaceflight operations, in accordance with DX12-POL-002, "NBL Standard Operating Plan" and DX14-POL-002, "SVMF Standard Operating Plan."

#### **3.1.5 Tours, Media and Special Event Support**

The Contractor shall configure the facilities to support news media and other special events' requirements, upon request by NASA.

The Contractor shall perform informal guided tours of the facilities on a non-interference basis.

### **3.2 Sustaining Engineering and Maintenance**

The Contractor shall maintain all NBL and SVMF equipment and software, in accordance with the Maintenance Plan (DRD-NSOC-14).

The Contractor shall:

- a. Perform preventive maintenance on all equipment within Attachment J-20 and Attachment J-12. An existing system is available for use to support this requirement.
- b. Diagnose, correct and document hardware and software discrepancies.
- c. Refurbish or replace worn hardware.

The Contractor shall obtain NASA approval for any maintenance, repair, or replacement activity not covered by the Maintenance Plan (DRD-NSOC-14).

The Contractor shall update and maintain a data package on each major mockup and system, and provide an annual report of the data packages in accordance with Mockup and Systems Data Status Report (DRD-NSOC-41). The current list of major mockups and systems are provided in the Mockups and Systems List (Attachment J-20).

The Contractor shall notify the NASA office chief of any discrepancy that could potentially impact on-orbit equipment or on-orbit mission operations. Upon NASA concurrence, the Contractor shall notify the NASA program's (e.g., ISS) subsystem manager (or his/her representative).

The contractor shall maintain a critical spare inventory for items that must be kept on-hand to maintain operations or items that have long lead times to procure.

### **3.2.1 Facility and Installation Maintenance**

The Contractor shall provide a clean, safe and well-organized working environment for NBL and SVMF users at all times.

With NASA approval, the Contractor shall perform, or coordinate with JSC's COD to have them perform, all facility maintenance activities required to maintain the NBL and SVMF in fully-functional, showcase-like condition (e.g., clean/paint the facility, repair/replace equipment).

The Contractor shall be responsible for internal power and data distribution within each facility.

The Contractor shall monitor all public affairs-related displays and display areas and notify NASA when repairs, maintenance or upgrades are necessary.

With NASA approval, the Contractor shall coordinate with JSC's COD for maintenance, engineering and operation of installation-provided services (e.g., power, heating, ventilation, air conditioning, and safety controls).

### **3.3 Baseline Projects**

NASA will determine all facility requirements. The Contractor shall implement NASA-approved requirements for development and modification/changes.

Examples of baseline projects are system development, system/mockup upgrades, integration of GFE, minor mockup development and manufacture, software development and new documentation.

The Contractor shall:

- a. Provide baseline project support for all facilities defined in this SOW.
- b. Comply with the technical change process defined in section 2.16.2 of this SOW.

The Contractor shall support NASA planning for future projects by:

- a. Providing preliminary estimates of project cost, schedule and workload leveling.
- b. Recommending projects, requirements and priorities.

For projects selected by NASA to become CRs or DOs, the Contractor shall prepare, plan, estimate and obtain NASA approval.

The Contractor shall perform all activities necessary to complete approved CRs.

For GFE, the Contractor shall provide NBL or SVMF expertise during design, implementation and initial deployment in the NBL or SVMF.

### **3.4 IDIQ Projects**

NASA will determine all facility requirements. The Contractor shall implement NASA-approved requirements for development and modification changes.

Examples of IDIQ projects are implementation and execution of major new mockups/systems, major system/facility upgrades, and NASA-contracted External Customer agreements and CxP support (e.g. operations). In addition, the Contractor shall perform maintenance, engineering and operation of installation-provided services at NASA direction.

The Contractor shall:

- a. Comply with Clause H.2, Task Ordering Procedures.

- b. Comply with the technical change process defined in section 2.16.2 of this SOW.

The Contractor shall support NASA planning for future projects by:

- a. Providing preliminary estimates of project cost, schedule and workload leveling.
- b. Recommending projects, requirements and priorities.

For projects selected by NASA, the Contractor shall prepare, plan, estimate and obtain NASA approval for the DOs.

The Contractor shall perform all activities necessary to complete approved DOs.

### **3.5 External Customers**

The Contractor shall provide facility support services for non-MOD users in NSOC facilities, consisting of the functionalities defined in this SOW, and in accordance with External Customers Plan (DRD-NSOC-06).

The contractor shall secure External Customers to utilize NSOC facilities, in order to reduce the total cost to MOD without compromising safety, process integrity or infrastructure resources, in accordance with DRD-NSOC-06, External Customers Plan.

The Contractor shall perform the following, in accordance with External Customers Plan (Attachment J-04):

- a. Assist NASA in developing the infrastructure to support External Customers and development of supporting documentation (e.g., NBL and SVMF work instructions, facility layouts, operational and facility constraints).
- b. Recruit External Customers that are able to comply with all applicable NASA constraints and policies.
- c. With NASA approval, identify and propose resolutions to External Customer issues.
- d. Upon NASA direction, provide input to External Customer documentation (e.g., NASA CRs and DOs, draft Space Act Agreements (SAAs), draft Integrated Task Agreements (ITAs)).

Execution of External Customer agreements shall be in accordance with Clause H.17, Non-Government Use of NSOC Facilities.

### **3.6 Support Services**

#### **3.6.1 Safety**

##### **3.6.1.1 Pre-event Safety**

The Contractor shall ensure that NBL and SVMF events satisfy all applicable safety requirements before they occur (e.g., an engineering evaluation cannot be conducted if the required Test Readiness Review (TRR) has not been completed).

The Contractor shall coordinate the preparation and execution of Safety Reviews (SRs) and TRRs. To accomplish this task the Contractor shall:

- a. Identify all events, equipment and user-provided equipment for which an SR or TRR is required.
- b. Schedule all required SRs and TRRs.
- c. Coordinate with all affected personnel to ensure that the required products will be prepared or updated in time to be distributed to the SR or TRR participants.

- d. Distribute the products needed to support the SRs and TRRs.
- e. Participate in SRs and TRRs.
- f. Coordinate SR and TRR action item completion.
- g. Provide SR and TRR status to management.

### **3.6.1.2 Health and Safety**

The Contractor shall provide a resident point of contact for health and safety in each facility who shall:

- a. Serve as the focal point to ensure the safety and health of the buildings' users.
- b. Initiate/facilitate and document facility safety and health management policies and procedures.
- c. Communicate institutional and occupational safety and health information to the buildings' users.
- d. Plan, coordinate and lead facility safety inspections, as established in the most current version of JPR 1700.1. Track anomalies identified during inspections through closure.
- e. Plan, coordinate and lead monthly safety stand-down days.
- f. Organize and lead all Safety, Health and Maintenance events.
- g. Initiate safety investigations.

### **3.6.2 Facility Manager**

Facility Managers may be NASA or Contractor personnel, at NASA's discretion. When directed by NASA, the Contractor shall provide primary and/or alternate facility managers, who shall:

- a. Perform the JSC generic FM duties as defined in JWI-8831.1, Facility Manager Program.
- b. Monitor and ensure that all NSOC and JSC COD facility functionality is maintained for NSOC. The FM shall address issues in real-time to reduce impacts to events.
- c. Recommend, maintain and prioritize a list of proposed modifications to NSOC and JSC COD buildings and building equipment in support of NSOC. Upon NASA approval, the FM shall initiate the associated work requests (e.g., JSC Form 930, CR, DO).
- d. Coordinate with other JSC Facility Managers and JSC Alternate Facility Managers, as required.
- e. Review and approve critical lift packages. (Reference JPR 1700.1, "JSC Safety and Health Handbook")

The Contractor shall:

- a. Coordinate with NASA for the management of assigned high bay floor space to accommodate Contractor, NASA, other Government agencies, and non-government tenants.
- b. Provide support for planning, development, and integration of projects within the NBL and SVMF high bays.
- c. Maintain drawings of the layout of facility floor space, including the location of utilities.

### **3.6.3 Training**

The Contractor shall:

- a. Provide and maintain trained and certified personnel, in accordance with the Training and Certification Plan (DRD-NSOC-30).
- b. Complete Center-wide training requirements for all affected NSOC personnel.
- c. Provide any NSOC technical training or certifications to non-NSOC personnel, as requested by NASA.

## **4.0 NBL-Unique Support**

The Contractor shall adhere to the following tier one policy documents which provide the rules and regulations for operating and maintaining the NBL. The Contractor shall adhere to all lower tier documents referenced in a Tier 1 document.

DX12-POL-001, NBL General Operating Plan (GOP)

DX12-POL-002, NBL Standard Operating Plan (SOP)

DX12-POL-003, NBL Configuration Management Policy

DX12-POL-004, NBL Training and Certification Policy

DX12-POL-005, NBL Engineering Policy

DX12-POL-006, NBL Maintenance Policy

DX12-POL-007, NBL Safety and Mission Assurance Policy

DX12-POL-008, SCTF Lifting Policy

DX12-POL-009, LMF Standard Operating Plan (SOP)

The System Level Procedures (SLPs) are in the second tier of documentation and provide descriptions and constraints of the events that can be conducted within the two facilities. The third and final tier of documentation is the Work Instructions (WIs) and Unique Work Instructions (UWIs) that provide the employee with specific direction for the job responsibilities. The checklists and forms are resident at the WI and UWI level and provide additional guidance and direction for critical processes and procedures.

The Contractor shall perform the work in the NBL and LMF documents that are defined for “general contractor” and for “Operations Contractor” (NSOC).

The contractor shall provide a twelve-month projection of all NBL events in accordance with NBL Facility Utilization Summary (DRD-NSOC-33).

The following sections will provide additional clarity and direction for functions not covered in the NBL and LMF documentation.

## **4.1 Operations**

### **4.1.1 Scheduling**

The Contractor shall provide a representative to the Long Range Planning (LRP) meeting to ensure that the facility and operational support can meet the requirements of NASA. Changes to the LRP must have NASA approval.

### **4.1.2 Operational Control**



The Contractor shall operate the NBL Operations Control Center as defined in NBL-OCC-M0003, "Neutral Buoyancy Laboratory Operations Control Procedures."

#### **4.1.3 Event Support**

The Contractor shall provide integration functions for suited operations in accordance with DX12-SLP-015, "NBL Test Integration Procedure,"

The Contractor shall provide suited testing support in accordance with DX12-SLP-006, "NBL Suited Event Procedure."

If dive operations occur outside regular business hours, the Contractor shall provide certified Hyperbaric Chamber Operators. The Contractor shall coordinate with the Neutral Buoyancy Office Chief and the Human Test Support Group (HTSG) to schedule the training.

The Contractor shall provide water survival training in accordance with DX12-SLP-007, "NBL Water Survival Event Procedure."

The Contractor shall provide configured SCUBA support in accordance with DX12-SLP-008, "NBL Configured SCUBA Event."

The Contractor shall provide 1-g activity support in accordance with DX12-SLP-009, "NBL 1g Activities Procedures."

The Contractor shall provide diving and swimming services in accordance with DX12-SLP-010, "NBL Diving and Swimming Procedures."

The Contractor shall operate the critical systems in accordance with the following WIs:

Video:

DX12-UWI-010, "NBL Television Console Operator Work Instruction"

Communications:

DX12-UWI-011, "NBL Communications Operator Work Instruction Procedure"

DX12-COMM-W0012, "NBL Diver Voice Communication System Operations and Maintenance Procedure"

Breathing Gas System:

DX12-CS-BGS-W0011, "NBL Breathing Gas System Operations Procedures"

DX12-CS-BGS-M0004, "NBL Breathing Gas System Operations Manual"

Clean Room:

DX12-CS-CLN-W0002, "NBL Clean Room Procedures"

Pressure Testing Equipment:

DX12-CS-FAC-W0005, "NBL Pneumatic and Hydrostatic Test Bench Procedures"

Environmental Control System:

DX12-UWI-026, "NBL Environmental Control System Operations Work Instruction"

Robotics:

DX12-UWI-025, "NBL Robotics Systems Test Duty Station Work Instruction"

DX12-CS-ROBSS-TS0058, "NBL SSRMS Rules"

DX12-CS-ROBS-TS0033, "NBL SRMS Rules"

DX12-CS-ROB-TS0011, “NBL Robotic Systems Diagnostic Procedures and Guidelines”

DX12-CS-ROBTS-M0001, “NBL Hydraulic Test Stand Hydraulic Power Unit Operations”

Surface-Supplied Diving System:

NBL-CS-SSDS-W0003, “Neutral Buoyancy Surface-Supplied Diving System Work Instructions”

Water Treatment System:

NBL-CS-WTS-W0025, “NBL Water Treatment System Operations Procedures”

Tank:

NBL-CS-WTS-W0030, “NBL Pool Wall Inspection Procedures and Guidelines”

Lifting:

DX12-0114, “SCTF Lifting Procedures”

#### **4.1.4 Real-time Mission Support**

No NBL-unique requirements have been identified in this area.

#### **4.1.5 Tours, Media and Special Event Support**

The Contractor shall provide tour, media and special event support as defined in NBL-OCC-M0003, “Neutral Buoyancy Laboratory Operations Control Procedures.”

### **4.2 Sustaining Engineering and Maintenance**

The following documents provide the current process to perform maintenance for mockups and systems. Any deviations from these procedures must be documented in the Maintenance Plan (DRD-NSOC-14).

NBL-Maint-L0010, “NBL Maintenance Plan”

NBL-Eng-W0139, “NBL Integration Engineering Team Handbook”

NBL-CS-SCU-W0056, “Dive Systems/SCUBA Technician”

#### **4.2.1 Facility and Installation Maintenance**

No NBL-unique requirements have been identified in this area.

#### **4.3 Baseline Projects**

No NBL-unique requirements have been identified in this area.

#### **4.4 IDIQ Projects**

No NBL-unique requirements have been identified in this area.

#### **4.5 External Customers**

No NBL-unique requirements have been identified in this area.

#### **4.6 Support Services**

##### **4.6.1 Safety**

The Contractor shall follow the SR and TRR processes, in accordance with DX-006, “DX Change Request Process” and DX12-SLP-002, “NBL Test Readiness Review System Level Procedure.”

##### **4.6.2 Facility Manager**

No NBL-unique requirements have been identified in this area.

#### **4.6.3 Training**

No NBL-unique requirements have been identified in this area.

### **5.0 SVMF-Unique Support**

The Contractor shall accomplish all work in this SOW in accordance with DX14-POL-002, "SVMF Standard Operating Plan" and JSC-26830, "SVMF General Operating Procedures."

#### **5.1 Operations**

##### **5.1.1 Scheduling**

No SVMF-unique requirements have been identified in this area.

##### **5.1.2 Operations Control Center**

No SVMF-unique requirements have been identified in this area.

##### **5.1.3 Event Support**

The Contractor shall accommodate user requests for minor changes to the requested configuration prior to the event.

Mockup management may be provided by NASA or Contractor personnel, at NASA's discretion. When directed by NASA, the Contractor shall perform the following mockup management functions for all assigned mock-ups and equipment:

- a. Serve as the primary point-of-contact for users.
- b. Provide day-to-day oversight on behalf of SVMF management (e.g., know the operational status and current constraints that affect operations).
- c. Review utilization requests, coordinate the utilization activity schedule, and disposition (i.e., approve, disapprove) the utilization request.
- d. Lead/Coordinate DR analysis, resolution and closure. Understand the impact of each DR, its projected closure plan and schedule.
- e. Recommend a disposition to the responsible control board for all related CRs and DOs.
- f. Monitor the technical, cost and schedule status of all related CRs and DOs that have been approved for implementation. Recommend solutions to SVMF management when problems are identified.
- g. Participate in Test Readiness Reviews, Safety Reviews and operations briefings.
- h. Resolve user concerns, issues and complaints. Coordinate with NASA when necessary.
- i. Solicit user needs and seek ways to accommodate them.
- j. Assist users with CR and DO development (e.g., completing the CR form, recommending requirements, helping determine the relative priority of the change, coordinating meetings with SVMF technical experts to answer questions).

##### **5.1.4 Real-time Mission Support**

No SVMF-unique requirements have been identified in this area.

##### **5.1.5 Tours, Media and Special Event Support**

No SVMF-unique requirements have been identified in this area.

### **5.1.6 Flight Computer Support**

The Contractor shall perform all the activities necessary to provide Station Support Computers (SSC) and Portable Computer Systems (PCS) in support of training conducted in the SVMF. The Contractor shall:

- a. Obtain the most current version of all SSC and PCS computers and software (applications software and mission-specific software loads) from the Space Station Program Office, for all of the missions currently in training.
- b. Decompile the software code for PCS displays, modify the code for use in malfunction training, then recompile, test and install the resulting code
- c. Install and maintain the SSC and PCS applications software and mission-specific loads on the SSC and PCS computers required to support scheduled training events

## **5.2 Sustaining Engineering and Maintenance**

The Contractor shall maintain, repair and control the SVMF's fleet of bicycles.

### **5.2.1 Facility and Installation Maintenance**

No SVMF-unique requirements have been identified in this area.

### **5.3 Baseline Projects**

No SVMF-unique requirements have been identified in this area.

### **5.4 IDIQ Projects**

No SVMF-unique requirements have been identified in this area.

### **5.5 External Customers**

No SVMF-unique requirements have been identified in this area.

## **5.6 Support Services**

### **5.6.1 Safety**

The Contractor shall follow the SR and TRR processes, in accordance with DX14-027, "SVMF Safety Review/Test Readiness Review Work Instruction".

### **5.6.2 Facility Manager**

No SVMF-unique requirements have been identified in this area.

### **5.6.3 Training**

All Contractor mockup managers shall be certified in accordance with DX14-0037, "SVMF Office Staff Certification Guide."

## **Appendix A: Acronyms**

Certain acronyms used in this statement of work are listed and defined below. This appendix is for informational purposes only. If and to the extent any definition contained below conflicts with any other portion of the contract, the other portion of the contract shall prevail.

CIPAA – Cure in Place Ablator Applicator

COTS – Commercial off the shelf

CR – Change request

DMT – Dexterous Manipulator Trainer

DO – Delivery Order

DR – Discrepancy Report

FM – Facility Manager

GIDEP – Government Industry Data Exchange Program

IRD – Information Resources Directorate

MRMDF – Mobile Remote Manipulator Development Facility

NASA – National Aeronautics and Space Administration

PABF – Precision Air Bearing Floor

PAO – Public Affairs Office

PCS – ISS Portable Computer System

PGS – Partial Gravity System, alternately known as “POGO”

ROM – Rough Order of Magnitude

SOW – Statement of Work

SR – Safety Review

SMP – Software Management Plan

SSC – Station Support Computer

TOM – Test Operations Manager

TRR – Test Readiness Review

## **Appendix B: Definitions**

**Discrepancy** – An item that fails to meet a specific requirement; an anomaly.

**Discrepancy Report** – a record describing discrepant hardware, system or procedure

**Equipment** – Mockups, trainers, systems, portable equipment, tools or machinery (e.g., air conditioners used with SVMF mockups)

**Event** – any activity that takes place in the SVMF or NBL. Examples include: classes, engineering evaluations, tests, practice sessions, maintenance actions and tours. Events may be scheduled or unscheduled. Events that are subject to the workload sizing clause are further identified and characterized in Clause H.13.

**Facility** – The systems and subsystems of integrated hardware and software used in the preparation for and performance of mission operations. The term “facility” does not refer to “brick and mortar” buildings or building functions, such as lighting, environmental control, and janitorial services.

**Installation-Provided Services** – Basic services and utilities provided by JSC to each of its buildings or facilities to keep them safe, physically intact and usable for its assigned function. The following are examples: electrical power, environmental control (heating/ventilation/air conditioning), lighting, structural or roofing repair when necessary, emergency services (fire, security) and janitorial services.

**User** – anyone who uses the NSOC facilities to accomplish their work. The following are examples: NBL and SVMF employees, Instructors who teach classes, Astronauts who receive training, guides who lead tours, scientists and engineers who conduct research, tests or evaluations, people participating in tours and other guests.



## Appendix C: Performance Standards

The following Performance Standards are applicable to all contract requirements.

1. Required Service: Provide operational facilities to support user events at the NBL and SVMF.  
Standard of Excellence: 99% availability and functionality to support scheduled events due to factors within the scope of the SOW.  
Minimum Requirement: 95% availability and functionality to support scheduled events due to factors within the scope of the SOW.
2. Required Service: Ensure NBL user satisfaction  
Standard of Excellence: The aggregate score for internal customer evaluations shall be greater than 98%.  
Minimum Requirement: The aggregate score for internal customer evaluations shall be greater than 95%.
3. Required Service: Ensure SVMF user satisfaction  
Standard of Excellence: Less than 2.5% of the events each week have complaints about impacts to user operations.  
Minimum Requirement: Less than 5% of the events each week have complaints about impacts to user operations.
4. Required Service: Perform Project development and implementation  
Standard of Excellence: 100% of approved projects meet all requirements; are executed in accordance with the approved schedule; cost estimates (at CR/DO approval) are within +/- 5 percent of actual costs.  
Minimum Requirement: 90% of approved projects meet all requirements; are executed in accordance with the approved schedule; cost estimates (at CR/DO approval) are within +/- 10 percent of final actual costs.
5. Required Service: Provide problem identification and resolution at the NBL and SVMF  
Standard of Excellence: Contractor routinely identifies potential problems to NASA, and, with NASA approval, completes necessary corrective actions to resolve issues/ concerns before they can impact safety, events or projects. Zero deviations, waivers, or exceptions to policies/ constraints are presented each year.  
Minimum Requirement: Contractor communicates technical, cost and schedule problems to NASA, including recommended corrective actions, in time to resolve the problem before a safety violation, event cancellation or project impact occurs. Less than 4 deviations, waivers, or exceptions to policies/ constraints are presented each year.
6. Required Service: Support External Customers  
Standard of Excellence: Cost savings to FOD due to external customers equals the values in Table 1, \$ (b) (4) (Extension Base Period Only) of the External Customer Plan (DRD-NSOC-06/ Attachment J-04).  
Minimum Requirement: Cost savings to FOD due to external customers equals the values



in Table 1, \$ (b) (4) (Extension Base Period Only) of the  
External Customer Plan (DRD-NSOC-06/ Attachment J-04).

**[END OF SECTION]**

## **PACKAGING AND MARKING**

### **D.1. Listing of Clauses Incorporated by Reference**

Clause

Number

Date

Title

**1852.211-70**

**SEP 2005**

**Packaging, Handling, and Transportation**

END OF CLAUSES INCORPORATED BY REFERENCE

**[END OF SECTION]**

## INSPECTION AND ACCEPTANCE

### E.1. Listing of Clauses Incorporated by Reference

Clause

Number	Date	Title
<b>52.246-3</b>	<b>MAY 2001</b>	<b>Inspection of Supplies – Cost-Reimbursement</b>
<b>52.246-5</b>	<b>APR 1984</b>	<b>Inspection of Services – Cost-Reimbursement</b>
<b>52.246-11</b>	<b>FEB 1999</b>	<b>Higher-level Contract Quality Requirement</b>

	Number	Title
	ISO 9001:2008	Model for Quality Assurance in Design/Development, Production, Installation, and Servicing

### **1852.246-72      AUG 2003      Material Inspection and Receiving Report**

(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 copies (an original and 2 copies).

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. Quality Assurance Surveillance Plan

A Quality Assurance Surveillance Plan (Attachment J-18) will be developed and implemented by the Contracting Officer's Technical Representative as a part of the contract administration and monitoring activities conducted to assure that the Government receives products and services that conform to contract requirements. The nature and extent of quality assurance surveillance contemplated in this plan will be based, in part, on the specific content of the contractor's Quality Plan (DRD-NSOC-16).

(End of clause)

**[END OF SECTION]**

## DELIVERIES OR PERFORMANCE

### F.1. Listing of Clauses Incorporated by Reference

Clause Number	Date	Title
52.242-15	AUG 1989	Stop Work Order; Alternate I (APR 1984)
52.247-29	FEB 2006	FOB Origin

END OF CLAUSES INCORPORATED BY REFERENCE

### F.2. Place of performance

The place of performance for the work called for hereunder will be the Johnson Space Center, Sonny Carter Training Facility, Houston Texas and other locations where the requirements are specified in section C of this contract.

(End of clause)

### F.3. Completion of Work

All work required under this contract, including submission of all reports, shall be completed on or before **September 30, 2017**.

(End of clause)

### F.4. Shipping Instructions

- (a) All documentation shall be shipped to the individuals specified in the respective Data Requirements List and Data Requirements Descriptions incorporated as Attachments J-09 and J-10 in Section J.

Shipment of all other items shall be in accordance with the following:

NASA Johnson Space Center  
Central Receiving  
Building 421  
2101 NASA Parkway  
Houston, TX 77058-3696

Other Documentation Shipments:  
Mark For: Susan Sinclair/DX  
Building No. 585, Room 121D

Parcel Post Shipments and Freight Shipments:  
Mark for: Accountable Property Officer  
Contract Number: **NNJ10HD35C**

- (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.

(End of clause)

**F.5. Option to Extend Period of Performance**

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 Clause F.3, Completion of Work. 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:

**F.5.1 Option 1 (Fourth Contract Year - 12 Months)**

(a) B.3, *Contract Value*, shall be modified at paragraph (a) to reflect the addition of the amounts below:

**(1) Contract Cost and Fee Summary****Costs****1. Total Estimated Costs****Award Fee****2. Maximum Award Fee (75% of Total Fee)****Incentive Fee****3. Minimum****4. Target (25% of Total Fee)****5. Maximum (target multiplied by 1.5)**

Share Ratio Underrun: 85/15

Share Ratio Overrun: 75/25

**Total Fee Range****6. Minimum (3)****7. Maximum (2+5)****Target Total Cost-Plus-AF/IF (1+2+4)****(b) (4)****(b) (4)**

- (b) B.3, *Contract Value*, shall be modified at paragraph (a) to reflect the addition of **(b) (4)** to the total estimated costs, **(b) (4)** to the maximum available award fee, and **(b) (4)** to the target incentive fee of this contract. The table in B.3(d) shall also be modified to reflect these additions
- (c) B.5, *Minimum and Maximum IDIQ Ordering Value*, shall be modified at paragraph (b) to reflect the addition of **\$8,000,000** to the total estimated cost of the IDIQ NTE section.
- (d) F.3, *Completion of Work*, shall be modified to extend the completion date to **September 30, 2014**.
- (e) FAR Clause 52.222-2, *Payment of Overtime Premiums*, shall be modified to state: (a) The use of overtime is authorized under this contract if the overtime premium does not exceed to **be determined**, or the overtime premium is paid for work defined within sections (a)(1) through (a)(3) of this clause.
- (f) Section J, Attachment J-11, *Award/ Incentive Fee Plan*, shall be modified to reflect the addition of available fee for the option period.

**F.5.2 Option 2 (Fifth Contract Year - 12 Months)**

(a) B.3, *Contract Value*, shall be modified at paragraph (a) to reflect the addition of the amounts below:

(1) Contract Cost and Fee Summary

Costs

1. Total Estimated Costs

Award Fee

2. Maximum Award Fee (75% of Total Fee)

Incentive Fee

3. Minimum

4. Target (25% of Total Fee)

5. Maximum (target multiplied by 1.5)

Share Ratio Underrun: 85/15

Share Ratio Overrun: 75/25

Total Fee Range

6. Minimum (3)

7. Maximum (2+5)

Target Total Cost-Plus-AF/IF (1+2+4)

(b) (4)

(b) (4)

(b) B.3, *Contract Value*, shall be modified at paragraph (a) to reflect the addition of \$ (b) (4) to the total estimated costs, \$ (b) (4) to the maximum available award fee, and \$ (b) (4) to the target incentive fee of this contract. The table in B.3(d) shall also be modified to reflect these additions

(c) B.5, *Minimum and Maximum IDIQ Ordering Value*, shall be modified at paragraph (b) to reflect the addition of \$10,000,000 to the total estimated cost of the IDIQ NTE section.

(d) F.3, *Completion of Work*, shall be modified to extend the completion date to **September 30, 2015**.

(e) FAR Clause 52.222-2, Payment of Overtime Premiums, shall be modified to state: (a) The use of overtime is authorized under this contract if the overtime premium does not exceed **to be determined**, or the overtime premium is paid for work defined within sections (a)(1) through (a)(4) of this clause.

(f) Section J, Attachment J-11, Award/ Incentive Fee Plan, shall be modified to reflect the addition of available fee for the option period.

(End of clause)

**F.5.3 Extension Option 3 (Eighth Contract Year - 12 Months)**

(a) B.3, *Contract Value*, shall be modified at paragraph (a) to reflect the addition of the amounts below:



(1) Contract Cost and Fee Summary

Costs

1. Total Estimated Costs \$ (b) (4)

Award Fee

2. Maximum Award Fee (75% of Total Fee) \$ (b) (4)

Incentive Fee

3. Minimum \$0

4. Target (25% of Total Fee) \$ (b) (4)

5. Maximum (target multiplied by 1.5) \$ (b) (4)

Share Ratio Underrun: 85/15

Share Ratio Overrun: 75/25

Total Fee Range

6. Minimum (3) \$0

7. Maximum (2+5) \$ (b) (4)

Target Total Cost-Plus-AF/IF (1+2+4) (b) (4)

(b) B.3, *Contract Value*, shall be modified at paragraph (a) to reflect the addition of \$ (b) (4) to the total estimated costs, \$ (b) (4) to the maximum available award fee, and \$ (b) (4) to the target incentive fee of this contract. The table in B.3(d) shall also be modified to reflect these additions

(c) B.5, *Minimum and Maximum IDIQ Ordering Value*, shall be modified at paragraph (b) to reflect the addition of \$10,500,000 to the total estimated cost of the IDIQ NTE section.

(d) F.3, *Completion of Work*, shall be modified to extend the completion date to September 30, 2018.

(e) FAR Clause 52.222-2, *Payment of Overtime Premiums*, shall be modified to state: (a) The use of overtime is authorized under this contract if the overtime premium does not exceed to be determined, or the overtime premium is paid for work defined within sections (a)(1) through (a)(3) of this clause.

(f) Section J, Attachment J-11, *Award/ Incentive Fee Plan*, shall be modified to reflect the addition of available fee for the option period.

(End of clause)

**F.5.4 Extension Option 4 (Ninth Contract Year - 12 Months)**

(a) B.3, *Contract Value*, shall be modified at paragraph (a) to reflect the addition of the amounts below:

(1) Contract Cost and Fee Summary



Costs

1. Total Estimated Costs \$ (b) (4)

Award Fee

2. Maximum Award Fee (75% of Total Fee) \$ (b) (4)

Incentive Fee

3. Minimum \$0

4. Target (25% of Total Fee) \$ (b) (4)

5. Maximum (target multiplied by 1.5) \$ (b) (4)

Share Ratio Underrun: 85/15

Share Ratio Overrun: 75/25

Total Fee Range

6. Minimum (3) \$0

7. Maximum (2+5) \$ (b) (4)

Target Total Cost-Plus-AF/IF (1+2+4) (b) (4)

(b) B.3, *Contract Value*, shall be modified at paragraph (a) to reflect the addition of \$ (b) (4) to the total estimated costs, \$ (b) (4) to the maximum available award fee, and \$ (b) (4) to the target incentive fee of this contract. The table in B.3(d) shall also be modified to reflect these addition.

(c) B.5, *Minimum and Maximum IDIQ Ordering Value*, shall be modified at paragraph (b) to reflect the addition of \$10,500,000 to the total estimated cost of the IDIQ NTE section.

(d) F.3, *Completion of Work*, shall be modified to extend the completion date to **September 30, 2019**.

(e) FAR Clause 52.222-2, *Payment of Overtime Premiums*, shall be modified to state: (a) The use of overtime is authorized under this contract if the overtime premium does not exceed **to be determined**, or the overtime premium is paid for work defined within sections (a)(1) through (a)(4) of this clause.

(f) Section J, Attachment J-11, *Award/ Incentive Fee Plan*, shall be modified to reflect the addition of available fee for the option period.

(End of clause)

**F.6. Bills of Lading NFS 1852.247-73 (JUN 2002)**

The purpose of this clause is to define when a commercial bill of lading or a government bill of lading is to be used when shipments of deliverable items under this contract are FOB origin.

- (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: **NNJ10HD35C**; Destination: Johnson Space Center

- (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.

At least 15 days before shipment, the Contractor shall request in writing GBLs from: Sylvia Hanagriff, Traffic Management Specialist, Johnson Space Center, 2101 NASA Parkway, Mail Code JB7, Houston, Texas, 77058-3696. If time is limited, requests may be by telephone: 281-483-6507. 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.7. Phase-in and Phase-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. To this end, the Contractor shall conduct an orderly phase-in of contract activities prior to assumption of responsibility for the effort described in the Statement of Work (SOW).
- (2) Beginning with the effective date of the contract, the Contractor shall have 60 calendar days in which to conduct phase-in. During this time, the Contractor shall not be responsible for performance of the effort described in the SOW. It is understood that during phase-in the predecessor contractor(s) will be performing work which will be covered by the SOW of this contract after phase-in.
- (3) After 60 calendar days from the effective date of the contract (i.e., on the 61<sup>st</sup> day), the Contractor shall assume full responsibility for the effort covered by the SOW.
- (4) During phase-in, the Contractor 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 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 parties agree that the total cost for phase-in shall not exceed **\$149,353**. Any costs incurred in excess of this amount shall be unallowable under this or any other Government contract.

##### **(b.) Contractor Phase-Out**

- (1) Prior to contract completion, a successor contractor(s) may be selected to perform the work requirements covered by the SOW. The Contractor will 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 60 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) Optional Management Information Systems (MIS) support is available from the contractor through a one year noncommercial software use license agreement that will be negotiated before the contract ends; with an effective date that will align with the successor contractor's start date. The cost for the license agreement is based on a one-time material cost (WBS 1.3 in year 3 of the 3 year Base Period) for the Secure ID Keyfobs to allow NASA JSC, MOD and/or a follow-on contractor access to the NASA data located on RTSC servers, for the one year license period.  
  
Access to the data beyond the RTSC period of performance shall be solely for the purposes of continuing operations in support of NASA JSC, MOD and the successor contractor's migration of NASA data to the successor contractor's MIS system.  
  
NASA JSC, MOD shall maintain a list of NASA and successor contractor personnel authorized to use the Keyfobs, and shall provide the list to contractor upon written request.

(End of clause)

**[END OF SECTION]**

## CONTRACT ADMINISTRATION DATA

### G. Listing of Clauses Incorporated by Reference

Clause Number	Date	Title
<b>1852.227-70</b>	<b>MAY 2002</b>	<b>New Technology</b>
<b>1852.227-86</b>	<b>DEC 1987</b>	<b>Commercial Computer Software – Licensing</b>
<b>1852.242-73</b>	<b>NOV 2004</b>	<b>NASA Contractor Financial Management Reporting</b>

END OF CLAUSES INCORPORATED BY REFERENCE

#### G.2. Award Fee for Service Contracts (NFS 1852.216-76) (JUN 2000)

- (a) The contractor can earn award fee from a minimum of \$0 to the maximum stated in Clause B.5, *Estimated Cost and Award/Incentive Fee*.
- (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 the Award/Incentive Fee Plan (Attachment J-11). 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) Financial Management Division (FMD) will make payment based on the issuance of a unilateral modification by Contracting Officer.
- (d) After 85 percent of the potential award fee has been paid, the Contracting Officer may direct the withholding of further payment of award fee until a reserve is set aside in an amount that the Contracting Officer considers necessary to protect the Government's interest. This reserve shall not exceed 15 percent of the total potential award fee.
- (e) The amount of award fee which can be awarded in each evaluation period is limited to the amounts set forth in the Award/Incentive Fee Plan (Attachment J-11). 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 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 52.216-92 Submission of Vouchers for Payment. (MAY 2014) (JSC Procurement Instruction)**

(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](mailto: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.3. 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, the following named representatives are hereby designated by the Contracting Officer to administer such clause:

New Technology Representative:

Patent Representative:

Mark For: Technology Transfer Office/AF2

Mark for: Patent Counsel/ AL

Contract Number: NNJ10HD35C

Contract Number: NNJ10HD35C

- (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. 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.4. 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 via a Transmittal/Information Request Form (TIRF), JSC Form JF991C.

- (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.5. Contractor Requests for Government-provided Equipment (NFS 1852.245-70) (SEP 2007) (DEVIATION); Alternate I (SEP 2007) (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.

(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 calendar 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 52.245-1, Government Property.
- (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.6. Installation-accountable Government Property (NFS 1852.245-71) (SEP 2007) (DEVIATION); Alternate I (SEP 2007) (DEVIATION)**

- (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). For the purposes of disposal of property on this contract, Contractor facilities within **5 miles** of JSC are considered to be within NASA installations.

Under this clause, the Government retains accountability for, and title to, the property acquired by the Contractor for the Government, in accordance with FAR 52.245-1. During the process of acquiring property for the Government, the Contractor shall comply with the following:

- (1) The contractor shall manage controlled property and maintain records of property in a NASA sub-installation domain in accordance with:
  - (i) NASA Procedural Requirements (NPR) 4100.1, NASA Materials Inventory Management Manual
  - (ii) NASA Procedural Requirements (NPR) 4200.1, NASA Equipment Management Procedural Requirements
  - (iii) NASA Procedural Requirement (NPR) 4300.1, NASA Personal Property Disposal Procedural Requirements
  - (iv) NASA Procedural Directive (NPD) 4300.4 Use of Space Shuttle and Aerospace Vehicle Materials as Mementos
  - (v) NASA Procedural Requirement (NPR) 4310.1, Identification and Disposition of NASA Artifacts
  - (vi) JWI4210.2, JSC Instructions for Control of Program Stock
- (2) NASA Owned property provided under this contract that meets controlled property or exceeds the Agency capitalization threshold shall be maintained in the NASA sub-installation, including capital items located at subcontractor locations.
- (3) The contractor shall maintain records of supplies and materials that do not qualify for control under the requirements of this clause and the aforementioned policies and manuals in accordance with the requirements of the FAR property clause incorporated elsewhere in this contract.
- (4) The official accountable recordkeeping, physical inventory, financial control, and reporting of the controlled property subject to this clause shall be retained by the Government. The contractor shall perform management of all recordkeeping functions as a sub-installation.
- (5) The contractor is responsible for, accountable for and shall record all contractor-acquired property in accordance with the FAR property clauses until the property is entered into contractor NASA sub-installation. The contractor shall record all property that qualifies for control under the requirements of NPR 4200.1, or succeeding documents within the same calendar month as receipt and invoicing.
- (6) After entry into NASA sub-installation, the contractor shall continue to maintain such internal records as are necessary to execute the custodian/user responsibilities and document the acquisition 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.

Property not recorded in NASA property systems must be managed in accordance with the requirements of FAR 52.245-1.

The Contractor shall establish and adhere to a system of written procedures to assure continued, effective management control and compliance with these user responsibilities. Such procedures must include holding employees liable, when appropriate, for loss, damage, or destruction of Government property.

(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 of the property as required by FAR 52.245-1, Government Property, and furnish to the Industrial Property Officer a DD Form 1149, Requisition and Invoice/Shipping Document, (or installation equivalent) to transfer accountability to the Government within 5 working days after receipt of the property by the Contractor. The Contractor is accountable for all contractor-acquired property until the property is transferred to the Government's accountability.

(iv) Contractor use of Government property at an off-site location and off-site subcontractor use require 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, 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 are available for official purposes only.
- ✓ (2) Office furniture.

- ✓ (3) Property listed in Attachment J-12, JSC On-site Installation Accountable Property.
  - (ii) 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.
  - (iii) 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: (See Attachment J-15, List of Facilities).
- ✓ (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) Moving and hauling for office moves, movement of large equipment, and delivery of supplies. Moving services may be provided on-site, as approved by the Contracting Officer.

(End of clause)

**G.7. Financial Reporting of NASA Property in the Custody of Contractors (NFS 1852.245-73) (SEP 2007) (DEVIATION)**

(a) The Contractor shall submit annually a NASA Form (NF) 1018, NASA Property in the Custody of Contractors, in accordance with the provisions of NFS 1845.505-14, the instructions on the form, subpart NFS 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: [Insert name and address of appropriate NASA Center office.], 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 1845.505-14 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 (b)(1) through (3) of this clause.

(End of clause)

**G.8. Identification and Marking of Government Equipment (NFS 1852.245-74) (SEP 2007)  
(DEVIATION)**

- (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 Handbook. This includes deliverable equipment listed in the schedule and other equipment when 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) Property shall be marked in a location that will be human readable, without disassembly or movement of the property, 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 items physically transferred under paragraph (a) the following additional data is required:
  - (1) Date originally placed in service.
  - (2) Item condition.
  - (3) Date last serviced.
- (e) The data required in paragraphs (c) and (d) shall be delivered to the NASA center receiving activity listed below:

See Clause F.4, Shipping Instructions
- (f) 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.9. Property Management Changes (NFS 1852.245-75) (SEP 2007) (DEVIATION)**

- (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 and Industrial Property Officer (IPO), 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.
- (b) The Contractor shall contact the IPO at:

NASA/Johnson Space Center  
Attn.: Michael Caputo/JB  
2101 Nasa Parkway  
Houston, TX. 77058-3696

(End of clause)

**G.10. Physical Inventory of Capital Personal Property (NFS 1852.245-78) (SEP 2007) (DEVIATION)**

- (a) In addition to physical inventory requirements under the clause at FAR 52.245-1, Government Property, 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, condition 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 NASA Industrial Property Officer (IPO), 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 NASA IPO, when all of the conditions in either (1) or (2) below 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,
    - (i) The Contractor provides written confirmation that the Government property exists in the recorded condition and location; and
    - (ii) The items continue to be used exclusively for performance of the contract or as otherwise authorized by the Contracting Officer.
  - (3) The Contractor shall submit the request to the cognizant property administrator and obtain approval from the IPO prior to implementation of the practice.
- (c) The Contractor shall report the results of the physical inventory to the property administrator and the NASA Industrial Property Officer 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, damage or destruction, in accordance with the clause at FAR 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 all physical inventory records, including records of all transactions associated with inventory reconciliation. All records shall be subject to Government review and/or audit.

(End of clause)

**G.11. Records and Disposition for Government Property with Potential Historic or Significant Real Value (NFS 1852.245-79) (SEP 2007) (DEVIATION)**

- (a) Items of Government property flown in space or used to support other pioneering NASA programs have increased probability of historic significance and an intrinsic value that is likely to exceed their unused material or physical value. Descriptions of physical characteristics alone are often insufficient to determine an item's historic significance or real value. In addition to the property record data required by the clause at FAR 52.245-1, Government Property in this contract, Contractor records of all Government property under this contract shall —
  - (1) Identify the projects or missions that used the items;
  - (2) Specifically identify items of flown property;
  - (3) When known, associate individual items of property used in space flight operations with the using astronaut(s); and
  - (4) Identify property used in test activity and, when known, the individuals who conducted the test.
- (b) The Contractor shall include this information within item descriptions —
  - (1) On any Standard Form 1428, Inventory Schedule;
  - (2) In automated disposition systems;
  - (3) In any other disposition related reports; and
  - (4) In other requests for disposition instructions.
- (c) The Contractor shall not remove NASA identification or markings from Government-furnished property prior to disposition without the advanced written approval of the NASA Industrial Property Officer.

(End of clause)

**G.12. Occupancy Management Requirements (NFS 1852.245-82) (SEP 2007) (DEVIATION)**

- (a) In addition to the requirements of the clause at FAR 52.245-1, Government Property, the Contractor shall comply with the following in performance of work in and around Government real property:
  - (1) NPD 8800.14, Policy for Real Property Management.
  - (2) NPR 8831.2, Facilities Maintenance Management
- (b) The Contractor shall obtain the written approval of the Contracting Officer before installing or removing Contractor-owned property onto or into any Government real property or when movement of Contractor-owned property may damage or destroy Government-owned property. The Contractor shall restore damaged property to its original condition at the Contractor's expense.

- (c) The Contractor shall not acquire, construct or install any fixed improvement or structural alterations in Government buildings or other real property without the advance, written approval of the Contracting Officer. Fixed improvement or structural alterations, as used herein, means any alteration or improvement in the nature of the building or other real property that, after completion, cannot be removed without substantial loss of value or damage to the premises. Title to such property shall vest in the Government.
- (d) The Contractor shall report any real property or any portion thereof when it is no longer required for performance under the contract, as directed by the Contracting Officer.

(End of clause)

**G.13. Security/ Badging Requirements for Foreign National Visitors and Employees of Foreign Contractors (JSC 52.204-91) (JAN 2006) Reference NASA Procedural Requirement 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 onsite 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.14. 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 develop and maintain an 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 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.15. 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 7:30 p.m., Monday through Friday, and 7:30 am to 3:00 pm on Saturday. 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.16. Repair of Government Property**

When removal of Government-owned property from its place of use for repair is necessary, the Contractor must prepare a JSC Form 1318 prior to removing the equipment. The form and instructions regarding its use are available from the Property and Equipment Branch, Building 419, Room 162, phone number 281-483-6524. The repaired Government property is to be returned to the location from which it was removed unless otherwise directed by the Government.

(End of clause)

#### **G.17. Emergency Preparedness and Response**

The Contractor's obligation may include resolution of unusual or emergency situations. The Contractor may be required to assist NASA, within the general scope of work, but in currently unidentified ways, in preparation for, or in response to emergencies. Obligations under this requirement shall only arise when one or more of the criteria at FAR 18.001, enabling NASA to utilize "Emergency Acquisition Flexibilities", are met. If the emergency preparedness and

response requirements result in changes to the contract, all contract adjustments will be processed in accordance with the Changes clause of this contract.

(End of clause)

**[END OF SECTION]**



## SPECIAL CONTRACT REQUIREMENTS

### H. Listing of Clauses Incorporated by Reference

Clause Number	Date	Title
<b>1852.208-81</b>	<b>NOV 2004</b>	<b>Restrictions on Printing and Duplication</b>
<b>1852.223-75</b>	<b>FEB 2002</b>	<b>Major Breach of Safety or Security</b>
<b>1852.225-70</b>	<b>FEB 2000</b>	<b>Export Licenses</b>

END OF CLAUSES INCORPORATED BY REFERENCE

#### H.2. Task Ordering Procedures (NFS 1852.216-80) (OCT 1996)

- (a) Only the Contracting Officer may issue delivery orders to the Contractor, providing specific authorization or direction to perform work within sections 3.4, 4.4, and 5.4 of the Statement of Work. The Contractor may incur costs under this contract in performance of delivery orders and delivery 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 delivery order, the Contracting Officer shall 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 the technical approach, period of performance, appropriate cost information, and any other information required to determine the reasonableness of the Contractor's proposal.
- (c) Within **5 business days** after receipt of the Contracting Officer's request, the Contractor shall submit a proposal conforming to the request. The contractor's proposal will utilize the direct, indirect and fee rates established in Section J, Attachment J-08, *IDIQ Labor Rates Table*, to determine the estimated costs for each IDIQ Delivery Order.
- (d) After review and any necessary discussions, the Contracting Officer may issue a task order to the Contractor containing, as 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.

- (e) The Contractor shall provide acknowledgment of receipt to the Contracting Officer within 5 calendar days after receipt of the delivery 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 delivery order which includes a ceiling price may be issued.
- (g) The Contracting Officer may amend tasks in the same manner in which they were issued.
- (h) In the event of a conflict between the requirements of the delivery order and the Contractor's approved proposal, the delivery order shall prevail.
- (i) Contractor shall submit monthly delivery order progress reports. As a minimum, the reports shall contain the following information:
  - (1) Contract number, delivery order number, and date of the order.
  - (2) Ceiling price.
  - (3) Cost and hours incurred to date for each issued task.
  - (4) Costs and hours estimated to complete each issued task.
  - (5) Significant issues/problems associated with a task.
  - (6) Cost summary of the status of all tasks issued under the contract.

(End of clause)

## **H.2 1852.225-74, 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/manufacturer'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)**

### **H.3. Safety and Health (NFS 1852.223-70) (APRIL 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 for:
- (1) Written hazardous operating procedures for all hazardous operations; and/or
  - (2) Qualification standards for personnel involved in hazardous operations.

(End of clause)

#### **H.4. Federal Automotive Statistical Reporting (NFS 1852.223-76) (JUL 2003)**

If authorized to operate Government-owned or –leased vehicles, including interagency fleet management system (IFMS) vehicles or related services in performance of this contract, the Contractor shall report the data describing vehicle usage required by the Federal Automotive

Statistical Tool (FAST) by October 15 of each year. FAST is accessed through <http://fastweb.inel.gov/>.

(End of clause)

**H.5. Cross-Waiver of Liability for International Space Station Activities (NFS 1852.228-76)  
(OCT 2009) (DEVIATION)**

- (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 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;
  - (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; 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.6. Key Personnel and Facilities (NFS 1852.235-71) (MAR 1989)**

- (a) The personnel and/or facilities listed below (or specified in the contract Schedule) 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:**

**1) Program Manager**

**Randal Linder**

**2) Deputy Program Manager**

(b) (4)

**3) Engineering Office Manager**

(b) (4)

- 4) SVMF Operations Manager
- 5) NBL Operations Manager
- 6) External Customer Office
- 7) Environmental, Health and Safety Manager

Key Facilities: N/A

(b) (4)

(End of clause)

#### **H.7. Observance of Legal Holidays (NFS 1852.242-72) (AUG 1992)**

- (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.8. Small Disadvantaged Business Participation – Contract Targets

- (a) FAR 19.1202-4(a) requires that SDB subcontracting targets be incorporated in the Contract. Targets for this contract are as follows:

*NAICS Industry Subsectors	Percent of Contract Value
(b) (4)	
Total	(b) (4)
*North American Industry Classification System (NAICS) Industry Subsectors as determined by the Department of Commerce as being underrepresented in accordance with FAR 19.201(b)	

- (b) FAR 19.1202-4(b) requires that SDB concerns that are specifically identified by the Offeror be listed in the contract when the identification of such subcontractors was evaluated as part of the subfactor on Small Business Utilization. SDB concerns (subcontractors) specifically identified by the Offeror are as follows:

Name of Concern(s): (b) (4)

The Contractor shall notify the Contracting Officer of any substitutions of the firms listed if the replacement contractor is not an SDB concern.

- (c) If the prime Offeror is an SDB the target for the work it intends to perform as the prime Contractor is as follows:

*NAICS Industry Subsectors	Dollar Target	Percent of Contract Value
	(TO BE PROPOSED BY OFFERORS)	

(End of clause)

#### H.9. Small Business Subcontracting Goals (52.219-90) (OCT 2006)

The total small business goal, expressed as a percent of total contract value including options, is (b) (4) percent for FY16 through FY19. The small business percentage goal includes the following goals expressed as a percent of total contract value:

Subcategories of Small Business Concerns**	FY16 through FY15	FY16 through FY19
	Percent of Contract Value	Percent of Contract Value
Women Owned Small Business	(b) (4)	(4)
Small Disadvantaged Business		
Veteran Owned Small Business		
Service-Disabled Veteran-Owned Small Business		
HUBZone Small Business		
Historically Black Colleges and Universities		
Total		
**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 "Historically Black College or University (HBCU)" are defined in paragraph 2.101 of the Federal Acquisition Regulation.		

**NOTE:** Dollar Value to be subcontracted per Category does NOT include fee. Therefore the Team Goal as a Percent of Total Contract Value less fee.

(End of clause)

#### H.10. Environmental and Energy Conservation Requirements (JSC 52.223-93) (May 2008)

- (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: JPD 8500.1, JSC Environmental Excellence Policy; JPR 8550.1, JSC Environmental Compliance Procedural Requirements; JPR 8553.1, JSC Environmental Management System Manual; CWI JE9W-06, EMS Aspect/Impact Assessment and EMP Process; NPR 8570.1, Energy Efficiency and Water Conservation; JSC's Energy and Water Conservation 5-Year Plan; and CWI J69W-03, Energy Conservation. The Contractor shall provide data on affirmative procurement, waste reduction activity, energy efficient product procurement, and ozone depleting substances in accordance with DRD-NSOC-22, Environmental and Energy Consuming Product Compliance Reports.
- (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 in actions.

(End of clause)

#### **H.11. 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:

Contractor personnel working on-site; and Contractor personnel dedicated to the contract effort who are working off-site within 10 miles of JSC; and 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 FAR 52.242-94, Administrative Leave." All such invoices paid will be subject to review, audit, and revision when routine operations re-commence.
- (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.12. Contract Adjustment**

The purpose of this clause is to set forth the terms and conditions governing adjustment to the estimated cost and award/incentive fee, if any, to account for growth or shrinkage in the work to be performed.

The Government's objective is to have the Statement of Work performed in the most efficient manner possible, consistent with the furnishing of high quality services. One means of achieving this objective is to minimize changes, and thus reduce or eliminate the administrative costs to both parties that are caused by issuing, pricing, and negotiating changes. The contract adjustment provisions set forth herein are intended to achieve that objective, while at the same time compensating the contractor fairly for the furnishing of services that are within a reasonable range of the baseline work (including workload sizing data and metrics) projected to be performed under the contract.

- (a) The elements of work described in the Statement of Work are in some instances accompanied by "workload sizing data or metrics", see Clause H.13, *Workload Sizing Data*. These data represent the Government's estimates of the level of services required, and are only intended to reflect the amount of activity anticipated for those elements of work. Workload sizing data do not constitute a limitation on the contractor's obligation to perform work in the areas to which they relate.
- (b) Work performed under the contract that falls within a range identified by the workload sizing data will **not** be subject to contract adjustment (unless an adjustment is necessitated by some other provision of this contract). The fact that the contractor has performed work that exceeds the workload-sizing maximum shall not relieve the contractor of its obligation to continue to perform such work to the extent it is required by the Government.
- (c) An equitable adjustment (either upward or downward) will be made in the cost and fee provided for in this contract if both of the following conditions are met at the end of each performance year of the contract:
  - (1) one or more of the workload sizing data thresholds has either been exceeded or has not been met by the upper or lower ranges; and
  - (2) the net cost increase or decrease of all workload sizing data combined is greater than **\$400,000**.

The adjustment provisions of this clause shall not be construed as a limitation of the Government's rights under the termination clause of this contract.

- (d) The contractor is responsible for tracking the performance of work in each area which is subject to workload sizing data; keeping current, complete, and accurate records regarding the quantum of work performed in relation to the applicable workload sizing data; making such records available to the Contracting Officer as may be requested from time to time; and submitting an adjustment proposal if the contractor believes the conditions of paragraph (c) above are met, or if requested by the Contracting Officer. If initiated by the contractor, the contractor's proposal shall be submitted within **30 calendar days** of the last day of the

contract performance period. If requested by the Contracting Officer, the proposal shall be submitted within **60 calendar days** of the request.

(End of clause)

### H.13. Workload Sizing Data

The contractor's support of the NBL/SVMF shall include certain enumerated tasks as required within the matrices set forth below. The workload sizing data set forth below shall be used independently for each year and each option year of the contract (see H.12, *Contract Adjustment*, for further information).

For the purpose of workload sizing, an SVMF Event to be counted against this amount is either a training event or an engineering evaluation. Tours, maintenance and other events do not count in workload sizing. Additionally, maintenance and project Events submitted by the contractor primarily for scheduling purposes do not count in the workload sizing evaluation.

<i>ELEMENT</i>	<i>Lower</i>	<i>Nominal</i>	<i>Upper</i>
<b>SVMF Events</b>			
Year 1	1984	2480	2976
Year 2	1700	2100	2800
Year 3	1700	2100	2800
Year 4 (Option Period 1)	1700	2100	2800
Year 5 (Option Period 2)	1700	2100	2800
Extension Year 1	1700	2100	2500
Extension Year 2	1700	2100	2500
Extension Option 3, if exercised	1700	2100	2500
Extension Option 4, if exercised	1700	2100	2500

For the purpose of workload sizing, an NBL Event is defined as a training event or engineering evaluation activity using from one to three pressurized suits or water survival training. Nominally events will have one to two pressurized suits; five percent of the total events will have three pressurized suits. For each NBL event there will be a 1-G activity. Life guards will be provided for a minimum of one hour per day to support no more than ten individuals at a time for lap swimming outside an NBL event.

<i>ELEMENT</i>	<i>Lower</i>	<i>Nominal</i>	<i>Upper</i>
<b>NBL Events</b>			
Year 1	185	200	215
Year 2	165	180	195
Year 3	120	135	150
Year 4 (Option Period 1)	120	135	150
Year 5 (Option Period 2)	120	135	150
Extension Year 1	120	135	150
Extension Year 2	120	135	150
Extension Option 3, if exercised	120	135	150
Extension Option 4, if exercised	120	135	150
<b>Configured SCUBA</b>			
Year 1	12	30	46
Year 2	12	30	46
Year 3	12	30	46
Year 4 (Option Period 1)	12	30	46
Year 5 (Option Period 2)	12	30	46
Extension Year 1	12	30	46
Extension Year 2	12	30	46
Extension Option 3, if exercised	12	30	46
Extension Option 4, if exercised	12	30	46



(End of clause)

#### **H.14. System Administrator Security Certification Program**

In addition to any other requirements of this contract, all individuals who perform tasks as a system administrator or have authority to perform tasks normally performed by system administrator shall be required to demonstrate knowledge appropriate to those tasks. This demonstration, referred to as the NASA System Administrator Security Certification, is a NASA funded two-tier assessment to verify that system administrators are able to:

- (1) Demonstrate knowledge in system administration for the operating systems for which they have responsibility.
- (2) Demonstrate knowledge in the understanding and application of Network and Internet Security.

Certification is granted upon achieving a score above the certification level on both an Operating System test and the Network and Internet Security Test. The Certification earned under this process will be valid for three years. The criteria for the skills assessments have been established by the NASA Chief Information Officer. The objectives and procedures for this certification can be obtained by contacting the IT Security Awareness and Training Center at (216) 433-2063.

A system administrator is one who provides IT services, network services, files storage, web services, etc. to someone else other than themselves and takes or assumes the responsibility for the security and administrative controls of that service or machine. A lead system administrator has responsibility for information technology security (ITS) for multiple computers or network devices represented within a system; ensuring all devices assigned to them are kept in a secure configuration (patched/mitigated); and ensuring that all other system administrators under their lead understand and perform ITS duties. An individual that has full access or arbitrative rights on a system or machine that is only servicing themselves does not constitute a "system administrator" since they are only providing or accepting responsibility for their system. An individual that is only servicing themselves is not required to obtain a System Administrator Certification."

(End of clause)

#### **H.15. Associate Contractor Agreement (ACA) for NSOC Activities**

- (a) The success of the NSOC is dependent on the efforts of multiple contractors. The NSOC contractor is a key participant. The other contracts of the key participating contractors are (this list is subject to change):

NNJ05HB40B Crew, Robotics, and Vehicle Equipment (CRAVE)  
NNJ09JA01C Center Institution Safety Services (CISS)  
NNJ09HD46C Facilities Development and Operations Contract (FDOC)  
NNJ08JA02C Facilities Contract  
NNJ06HB47C Occupational Medicine & Occupational Health (OMOH)  
NNJ06VA01C Space Program Operations Contract (SPOC)

NNJ05HI05C Engineering & Science Contract (ESC)  
NNJ08VA01C Integrated Mission Operations Contract (IMOC)  
NNJ06TA25C Orion, CEV Phase II  
NNJ04HA01C One EVA Contract  
NNJ09TA40C Constellation Space Suit Systems Contract (CSSS)  
TBD Extravehicular Activity Space Operations Contract (ESOC)

Under the aforementioned contracts and their successors, the contractors will provide the necessary technical, engineering and processing products and services required to develop, operate, maintain and utilize NSOC systems. All ACAs shall be submitted to the NSOC Contracting Officer's Technical Representative (COTR).

- (b) In order to achieve efficient and effective implementation of the NSOC, 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 the Mission Operations Directorate (MOD) with increased safety, efficiency, and productivity.
- (c) Given the unique role of this contract in developing, operating, maintaining and utilizing the NSOC systems, the contractor will engage in cooperative relationships that facilitate effective management of the overall NSOC effort. This joint cooperation will be evaluated as part of the contract award fee process, as defined in the Award/Incentive Fee Plan (Attachment J-11) for the contract. Successful performance will be determined by the Government's assessment of the overall and combined performance of the operation and utilization requirements in the contracts, as modified.
- (d) To ensure successful implementation and utilization of the NSOC, the contractors shall establish formal guidelines to address coordination, cooperation and communication. All program elements shall work in a coordinated fashion. Each contractor shall establish the means for the exchange of such data as needed to keep other project elements fully informed.

(End of clause)

#### **H.16. Requirement for Cost Tracking**

Costs for each program (i.e. Space Shuttle and ISS) shall be tracked and reported separately in order to comply with requirements that accurate and timely reporting of ISS costs to the Congress can be accomplished by NASA. These costs, to be reported in accordance with the requirements of NFS 1852.242-73, *NASA Contractor Financial Management Reporting*, and NFS 1852.242-74, *NASA Contractor Financial Management Reporting (Performance Analysis Report)*, must be in suitable format and adequate detail to fulfill obligations placed on NASA.

(End of clause)

#### **H.17. Non-Government Use of NSOC Facilities**

The Government may allow nonexclusive, non-government use of NSOC facilities by the contractor under this contract. If found appropriate by the Government through the Contracting Officer, the contractor and Government shall enter into a Facility Reimbursable Agreement (FRA) 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 FRA 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 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 FRA. 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 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 IDIQ delivery 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 an FRA or any other contractor work. The Government's intent is to avoid interfering with the execution of contractor agreements.

(End of Clause)

#### **H.18 Identification of Non-Commercial Computer Software; Non-Commercial Computer Software Documentation; and Computer Databases Subject to Delivery under DRD-NSOC-13**

(a) The terms used in this provision are defined in FAR 2.101.

(b) This solicitation sets forth the Government's known delivery or use under a license agreement requirements for data in accordance to Data Requirements Descriptions (DRDs). In regard to data items subject to delivery or use under a license agreement as required under DRD-NSOC-13, offers submitted in response to this solicitation shall identify the following data items to the extent known at the time an offer is submitted to the Government: (1) computer software that does not comprise commercial computer software; (2) computer software documentation not associated with commercial computer software; and (3) computer databases. Further, said identification shall include the following: (4) a full name (i.e., no acronyms), including version number (if applicable); (5) a functional description; and (6) a short

background as to an item's origin (e.g., developed at private expense; developed under a previous Government contract [include contract name and number if known]).

(c) The identification obligation defined in paragraph (b) of this provision shall continue during the course of contract performance. For any data items not previously identified and disclosed to the Government under subsection b above of this provision, during the course of contract performance, in regard to data items subject to delivery or use under a license agreement as required under DRD-NSOC-13, on at least an annual basis, the Contractor shall identify the following data items specifically used in performance of this contract to the Contracting Officer: (1) computer software that does not comprise commercial computer software; (2) computer software documentation not associated with commercial computer software; and (3) computer databases. Further, said identification shall include the following: (4) a full name (i.e., no acronyms), including version number (if applicable); (5) a functional description; and (6) a short background as to an item's origin (e.g., developed at private expense; developed under a previous Government contract [include contract name and number if known]).

(End of Clause)

#### **H.19 Identification and Assertion of Use, Release, or Disclosure Restrictions**

(a) The terms used in this provision are defined in FAR 52.227-14, Rights in Data-General clause. This provision is related to FAR 52.227-15(b), but it does not presuppose fulfilling a known data delivery requirement.

(b) The identification and assertion requirements in this provision apply only to data (which includes technical data and computer software) that could be delivered or use under a license agreement to the Government under the subject contract with other than unlimited rights..

(c) Offers submitted in response to this solicitation shall identify and assert, to the extent known at the time an offer is submitted to the Government, the technical data or computer software that the Offeror, its subcontractors or suppliers, or potential subcontractors or suppliers anticipate using in performance of the subject contract and which may be furnished to the Government with restrictions on use, release, or disclosure.

(d) The Offeror's assertions, including the assertions of its subcontractors or suppliers or potential subcontractors or suppliers, shall be submitted as an attachment to its offer in the following format, dated and signed by an official authorized to contractually obligate the Offeror:

Technical Data or Computer Software That May Be Furnished With Restrictions*	Basis for Assertion**	Asserted Rights Category***	Name of Person Asserting Restrictions****
(b) (4)	Developed Exclusively at Private Expense	Restricted Rights	Raytheon Missile Systems
	Developed Exclusively at Private Expense	Restricted Rights	RTSC
	Developed Exclusively at Private Expense	Restricted Rights	RTSC
	Developed Exclusively at Private Expense	Restricted Rights	RTSC

\*For technical data pertaining to items, components, or processes developed at private expense, identify both a functional description of the technical data and each such item, component, or process. For computer software or computer software documentation identify the software by its full name (i.e., no acronyms), including version number and a functional description, or documentation, respectively.

\*\*Generally, development at private expense is the only basis for asserting restrictions. For technical data, development refers to development of the item, component, or process to which the data pertain. For computer software, development refers to the software. Indicate whether development was accomplished exclusively or partially at private expense. If development was not accomplished at private expense, or for computer software documentation, enter the specific basis for asserting restrictions.

\*\*\*Enter asserted rights category (e.g., government purpose license rights from a prior contract, rights in SBIR data generated under another contract, limited, restricted, or government purpose rights under this or a prior contract, or specially negotiated licenses).

\*\*\*\*Corporation, individual, or other person, as appropriate.

\*\*\*\*\*Enter "none" when all data or software will be submitted without restrictions.

Date	June 8, 2010
Printed Name and Title	(b) (4) Director, Contracts
Signature	(b) (4)

(End of identification and assertion)

(e) An Offeror's failure to submit, complete, or sign the notification and identification required by paragraph (d) of this provision with its offer may render the offer ineligible for award.

(f) If the Offeror is awarded a contract, the assertions identified in paragraph (d) of this provision shall be listed in an attachment to that contract. Upon request by the Contracting Officer, the Offeror shall provide sufficient information to enable the Contracting Officer to evaluate any listed assertion. Any identification of limited rights data or restricted computer software in the Offeror's response to this provision is not determinative of the status of the subject data, should a contract be awarded to the Offeror.

(g) After contract award, the identification and assertion obligations of this provision shall continue through the term of this contract. For data items not previously identified to the Government under paragraph (d) of this provision, on at least an annual basis, the Contractor shall identify and assert to the Contracting Officer the technical data or computer software that the Contractor, its subcontractors or suppliers specifically used in performance of this contract and which may be furnished to the Government with restrictions on use, release, or disclosure. The Contractor's identification and assertions, including the assertions of its subcontractors or suppliers or potential subcontractors or suppliers, shall be submitted in accordance to the format defined in paragraph (d) of this provision signed by an official authorized to contractually obligate the Contractor.

(End of Clause)

(End of identification and assertion)



## **CONTRACT CLAUSES**

### **I.1. Listing of Clauses Incorporated by Reference**

<b>Clause Number</b>	<b>Date</b>	<b>Title</b>
<b>52.202-1</b>	<b>JUL 2004</b>	<b>Definitions</b>
<b>52.203-3</b>	<b>APR 1984</b>	<b>Gratuities</b>
<b>52.203-5</b>	<b>APR 1984</b>	<b>Covenant Against Contingent Fees</b>
<b>52.203-6</b>	<b>SEP 2006</b>	<b>Restrictions on Subcontractor Sales to the Government</b>
<b>52.203-7</b>	<b>JUL 1995</b>	<b>Anti-Kickback Procedures</b>
<b>52.203-8</b>	<b>JAN 1997</b>	<b>Cancellation, Rescission, and Recovery of Funds for Illegal or Improper Activity</b>
<b>52.203-10</b>	<b>JAN 1997</b>	<b>Price or Fee Adjustment for Illegal or Improper Activity</b>
<b>52.203-12</b>	<b>SEP 2007</b>	<b>Limitation on Payments to Influence Certain Federal Transactions</b>
<b>52.203-13</b>	<b>DEC 2008</b>	<b>Contractor Code of Business Ethics and Conduct</b>
<b>52.203-14</b>	<b>DEC 2007</b>	<b>Display of Hotline Poster(s)</b>
<b>52.203-17</b>	<b>APR2014</b>	<b>Contractor Employee Whistleblower Rights and Requirement to Inform Employees of Whistleblower Rights.</b>
<b>52.204-4</b>	<b>AUG 2000</b>	<b>Printed or Copied Double-Sided on Recycled Paper</b>
<b>52.204-7</b>	<b>APR 2008</b>	<b>Central Contractor Registration</b>
<b>52.204-9</b>	<b>SEP 2007</b>	<b>Personal Identity Verification of Contractor Personnel</b>
<b>52.207-5</b>	<b>FEB 1995</b>	<b>Option to Purchase Equipment</b>
<b>52.209-6</b>	<b>SEP 2006</b>	<b>Protecting the Government's Interest When Subcontracting with Contractors Debarred, Suspended, or Proposed for Debarment</b>
<b>52.211-5</b>	<b>AUG 2000</b>	<b>Material Requirements</b>
<b>52.211-15</b>	<b>APR 2008</b>	<b>Defense Priority and Allocation Requests</b>
<b>52.215-2</b>	<b>MAR 2009</b>	<b>Audit and Records- Negotiation</b>
<b>52.215-8</b>	<b>OCT 1997</b>	<b>Order of Precedence – Uniform Contract Format</b>
<b>52.215-10</b>	<b>OCT 1997</b>	<b>Price Reduction for Defective Cost or Pricing Data</b>
<b>52.215-11</b>	<b>OCT 1997</b>	<b>Price Reduction for Defective Cost or Pricing Data – Modifications</b>
<b>52.215-12</b>	<b>OCT 1997</b>	<b>Subcontractor Cost or Pricing Data</b>
<b>52.215-13</b>	<b>OCT 1997</b>	<b>Subcontractor Cost or Pricing Data – Modifications</b>



<b>52.215-14</b>	<b>OCT 1997</b>	<b>Integrity of Unit Prices</b>
<b>52.215-15</b>	<b>OCT 2004</b>	<b>Pension Adjustments and Asset Reversions.</b>
<b>52.215-18</b>	<b>JUL 2005</b>	<b>Reversion or Adjustment of Plans for Postretirement Benefits (PRB) other than Pensions</b>
<b>52.215-21</b>	<b>OCT 1997</b>	<b>Requirements for Cost or Pricing Data or Information Other Than Cost or Pricing Data – Modifications</b>
<b>52.215-23</b>	<b>OCT 2009</b>	<b>Limitations on Pass-Through Charges</b>
<b>52.216-7</b>	<b>DEC 2002</b>	<b>Allowable Cost and Payment</b>
<b>52.216-18</b>	<b>OCT 1995</b>	<b>Ordering</b>  (a) Any supplies or services specified in sections 3.4, 4.4, and 5.4 of the Statement of Work shall be ordered by issuance of delivery orders by the individuals or activities designated in the Schedule. Such orders may be issued through the period stated in Clause H.2 of this contract.
<b>52.216-19</b>	<b>OCT 1995</b>	<b>Order Limitations</b>  (a) Minimum order: When the Government requires supplies or services covered by this contract in an amount of less than <b><u>\$10,000</u></b> , 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 — <ol style="list-style-type: none"> <li>(1) Any order for a single item in excess of the NTE amount established in B.5 of this contract;</li> <li>(2) Any order for a combination of items in excess of the NTE amount established in B.5 of this contract; or</li> <li>(3) A series of orders from the same ordering office within 5 calendar days that together call for deliveries exceeding the NTE amount established in B.5 of this contract.</li> </ol> (c) Notwithstanding paragraph (b) 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 5 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.

<b>52.216-22</b>	<b>OCT 1995</b>	<b>Indefinite Quantity “up to 12 months after the completion date of this contract”</b>
<b>52.217-8</b>	<b>NOV 1999</b>	<b>Option to Extend Services</b>  The Contracting Officer may exercise the option by written notice to the contractor within 30 calendar days prior to the Option start date.
<b>52.217-9</b>	<b>MAR 2000</b>	<b>Option to Extend the Term of the Contract</b>  (a) The Government may extend the term of this contract by written notice to the Contractor no later than 30 calendar days prior to the Option start date, provided that the Government gives the Contractor a preliminary written notice of its intent to extend at least 60 calendar days 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 5 years.
<b>52.219-4</b>	<b>JUL 2005</b>	<b>Notice of Price Evaluation Preference for HUB Zone Small Business Concerns</b>
<b>52.219-8</b>	<b>MAY 2004</b>	<b>Utilization of Small Business Concerns</b>
<b>52.219-9</b>	<b>APR 2008</b>	<b>Small Business Subcontracting Plan; Alternate II (OCT 2001)</b>
<b>52.219-16</b>	<b>JAN 1999</b>	<b>Liquidated Damages – Subcontracting Plan</b>
<b>52.219-25</b>	<b>APR 2008</b>	<b>Small Disadvantaged Business Participation Program – Disadvantaged Status and Reporting</b>
<b>52.219-28</b>	<b>APR 2009</b>	<b>Post-Award Small Business Program Representation</b>
<b>52.222-1</b>	<b>FEB 1997</b>	<b>Notice to the Government of Labor Disputes</b>
<b>52.222-2</b>	<b>JUL 1990</b>	<b>Payment for Overtime Premiums</b>  (a) The use of overtime is authorized under this contract if the overtime premium does not exceed <b>to be determined</b> , or the overtime premium is paid for work defined within sections (a)(1) through (a)(4) of this clause.
<b>52.222-3</b>	<b>JUN 2003</b>	<b>Convict Labor</b>
<b>52.222-4</b>	<b>JUL 2005</b>	<b>Contract Work Hours and Safety Standards Act - Overtime Compensation</b>
<b>52.222-19</b>	<b>AUG 2009</b>	<b>Child Labor - Cooperation with Authorities and Remedies</b>
<b>52.222-21</b>	<b>FEB 1999</b>	<b>Prohibition of Segregated Facilities</b>

52.222-26	MAR 2007	Equal Opportunity
52.222-35	SEP 2006	Equal Opportunity for Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans
52.222-36	JUN 1998	Affirmative Action for Workers with Disabilities
52.222-37	SEP 2006	Employment Reports on Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans
52.222-41	NOV 2007	Service Contract Act of 1965
52.222-50	FEB 2009	Combating Trafficking in Persons
52.222-54	SEP 2009	Employment Eligibility Verification
52.223-3	JAN 1997	Hazardous Material Identification and Material Safety Data
52.223-5	AUG 2003	Pollution Prevention and Right-to-Know Information
52.223-6	MAY 2001	Drug-Free Workplace
52.223-10	AUG 2000	Waste Reduction Program
52.223-14	AUG 2003	Toxic Chemical Release Reporting
52.223-15	DEC 2007	Energy Efficiency in Energy-consuming Products
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
52.227-15	DEC 2007	Representation of Limited Rights Data and Restricted Computer Software
52.227-16	JUN 1987	Additional Data Requirements
52.228-7	MAR 1996	Insurance – Liability to Third Persons
52.230-2	OCT 2008	Cost Accounting Standards
52.230-6	MAR 2008	Administration of Cost Accounting Standards
52.232-9	APR 1984	Limitation on Withholding of Payments
52.232-17	OCT 2008	Interest
52.232-22	APR 1984	Limitation of Funds
52.232-23	JAN 1986	Assignment of Claims
52.232-25	OCT 2008	Prompt payment

<b>52.232-33</b>	<b>OCT 2003</b>	<b>Payment by Electronic Funds Transfer – Central Contractor Registration</b>
<b>52.233-1</b>	<b>JUL 2002</b>	<b>Disputes; Alternate I (DEC 1991)</b>
<b>52.233-3</b>	<b>AUG 1996</b>	<b>Protest after Award; Alternate I (JUN 1985)</b>
<b>52.233-4</b>	<b>OCT 2004</b>	<b>Applicable Law for Breach of Contract Claim</b>
<b>52.237-2</b>	<b>AUG 1984</b>	<b>Protection of Government Buildings, Equipment, and Vegetation</b>
<b>52.237-3</b>	<b>JAN 1991</b>	<b>Continuity of Services</b>
<b>52.242-1</b>	<b>AUG 1984</b>	<b>Notice of Intent to Disallow Costs</b>
<b>52.242-3</b>	<b>MAY 2001</b>	<b>Penalties for Unallowable Costs</b>
<b>52.242-4</b>	<b>JAN 1997</b>	<b>Certification of Final Indirect Costs</b>
<b>52.242-13</b>	<b>JUL 1995</b>	<b>Bankruptcy</b>
<b>52.243-2</b>	<b>AUG 1987</b>	<b>Changes – Cost Reimbursement; Alternate II (APR 1984)</b>
<b>52.244-2</b>	<b>JUN 2007</b>	<b>Subcontracts</b>
<b>52.243-7</b>	<b>APR 1984</b>	<b>Notification of Changes</b>
<b>52.244-5</b>	<b>DEC 1996</b>	<b>Competition in Subcontracting</b>
<b>52.244-6</b>	<b>AUG 2009</b>	<b>Subcontracts for Commercial Items</b>
<b>52.245-1</b>	<b>JUN 2007</b>	<b>Government Property</b>
<b>52.245-9</b>	<b>JUN 2007</b>	<b>Use &amp; Charges</b>
<b>52.246-25</b>	<b>FEB 1997</b>	<b>Limitation of Liability – Services</b>
<b>52.247-1</b>	<b>FEB 2006</b>	<b>Commercial Bill of Lading Notations</b>
<b>52.247-63</b>	<b>JUN 2003</b>	<b>Preference for U.S. Flag Air Carriers</b>
<b>52.247-64</b>	<b>FEB 2006</b>	<b>Preference for Privately Owned U.S. Flag Commercial Vessels</b>
<b>52.248-1</b>	<b>FEB 2000</b>	<b>Value Engineering</b>
<b>52.249-6</b>	<b>MAY 2004</b>	<b>Termination (Cost-Reimbursement)</b>
<b>52.249-14</b>	<b>APR 1984</b>	<b>Excusable Delays</b>
<b>52.251-1</b>	<b>APR 1984</b>	<b>Government Supply Sources</b>
<b>52.251-2</b>	<b>JAN 1991</b>	<b>Interagency Fleet Management System Vehicles and Related Services</b>
<b>52.253-1</b>	<b>JAN 1991</b>	<b>Computer Generated Forms</b>
<b>1852.203-70</b>	<b>JUN 2001</b>	<b>Display of Inspector General Hotline Posters</b>
<b>1852.219-74</b>	<b>SEP 1990</b>	<b>Use of Rural Area Small Business</b>
<b>1852.219-75</b>	<b>MAY 1999</b>	<b>Small Business Subcontracting Reporting</b>

<b>1852.223-74</b>	<b>MAR 1996</b>	<b>Drug and Alcohol-Free Workplace</b>
<b>1852.228-75</b>	<b>OCT 1988</b>	<b>Minimum Insurance Coverage</b>
<b>1852.235-70</b>	<b>DEC 2006</b>	<b>Center for Aerospace Information</b>
<b>1852.237-70</b>	<b>DEC 1988</b>	<b>Emergency Evacuation Procedures</b>
<b>1852.243-71</b>	<b>MAR 1997</b>	<b>Shared Saving</b>

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 JSC Procurement Officer and shall not be binding until so approved.

(End of clause)

**I.3. 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.4. Incentive Fee (FAR 52.216-10) (MAR 1997)**

- (a) General. The Government shall pay the Contractor for performing this contract a fee determined as provided in this contract.
- (b) Target cost and target fee. The target cost and target fee specified in the Schedule, are, subject to adjustment if the contract is modified in accordance with paragraph (d) of this clause.
  - (1) "Target cost," as used in this contract, means the estimated cost of this contract as initially negotiated, adjusted in accordance with paragraph (d) below.
  - (2) "Target fee," as used in this contract, means the fee initially negotiated on the assumption that this contract would be performed for a cost equal to the estimated cost initially negotiated, adjusted in accordance with paragraph (d) of this clause.
- (c) Withholding of payment. Normally, the Government shall pay the fee to the Contractor as specified in the Schedule. However, when the Contracting Officer considers that performance or cost indicates that the Contractor will not achieve target, the Government shall pay on the basis of an appropriate lesser fee. When the Contractor demonstrates that performance or cost clearly indicates that the Contractor will earn a fee significantly above the target fee, the Government may, at the sole discretion of the Contracting Officer, pay on the basis of an appropriate higher fee. After payment of 85 percent of the applicable fee, the Contracting Officer may withhold further payment of fee until a reserve is set aside in an amount that the Contracting Officer considers necessary to protect the Government's interest. This reserve shall not exceed 15 percent of the applicable fee or \$100,000, whichever is less. The Contracting Officer shall release 75 percent of all fee withholds under this contract after receipt of the certified final indirect cost rate proposal, covering the year of physical completion of this contract, provided the Contractor has satisfied all other contract terms and conditions, including the submission of the final patent and royalty reports, and is not delinquent in submitting final vouchers on prior years' settlements. The Contracting Officer may release up to 90 percent of the fee withholds under this contract based on the Contractor's past performance related to the submission and settlement of final indirect cost rate proposals.
- (d) Equitable adjustments. When the work under this contract is increased or decreased by a modification to this contract or when any equitable adjustment in the target cost is authorized under any other clause, equitable adjustments in the target cost, target fee, minimum fee, and maximum fee, as appropriate, shall be stated in a supplemental agreement to this contract.
- (e) Fee payable.
  - (1) The fee payable under this contract shall be the target fee increased by **fifteen cents** for every dollar that the total allowable cost is less than the target cost or decreased by **twenty-five cents** for every dollar that the total allowable cost exceeds the target cost. In no event shall the fee be greater than **target fee multiplied by 1.5** or less than **\$0**.
  - (2) The fee shall be subject to adjustment, to the extent provided in paragraph (d) of this clause, and within the minimum and maximum fee limitations in paragraph (e)(1) of this

clause, when the total allowable cost is increased or decreased as a consequence of (i) payments made under assignments or (ii) claims excepted from the release as required by paragraph (h)(2) of the Allowable Cost and Payment clause.

- (3) If this contract is terminated in its entirety, the portion of the target fee payable shall not be subject to an increase or decrease as provided in this paragraph. The termination shall be accomplished in accordance with other applicable clauses of this contract.
- (4) For the purpose of fee adjustment, "total allowable cost" shall not include allowable costs arising out of:
  - (i) Any of the causes covered by the Excusable Delays clause to the extent that they are beyond the control and without the fault or negligence of the Contractor or any subcontractor;
  - (ii) The taking effect, after negotiating the target cost, of a statute, court decision, written ruling, or regulation that results in the Contractor's being required to pay or bear the burden of any tax or duty or rate increase in a tax or duty;
  - (iii) Any direct cost attributed to the Contractor's involvement in litigation as required by the Contracting Officer pursuant to a clause of this contract, including furnishing evidence and information requested pursuant to the Notice and Assistance Regarding Patent and Copyright Infringement clause;
  - (iv) The purchase and maintenance of additional insurance not in the target cost and required by the Contracting Officer, or claims for reimbursement for liabilities to third persons pursuant to the Insurance--Liability to Third Persons clause;
  - (v) Any claim, loss, or damage resulting from a risk for which the Contractor has been relieved of liability by the Government Property clause; or
  - (vi) Any claim, loss, or damage resulting from a risk defined in the contract as unusually hazardous or as a nuclear risk and against which the Government has expressly agreed to indemnify the Contractor.
- (5) All other allowable costs are included in "total allowable cost" for fee adjustment in accordance with this paragraph (e), unless otherwise specifically provided in this contract.
- (f) Contract modification. The total allowable cost and the adjusted fee determined as provided in this clause shall be evidenced by a modification to this contract signed by the Contractor and Contracting Officer.
- (g) Inconsistencies. In the event of any language inconsistencies between this clause and provisioning documents or Government options under this contract, compensation for spare parts or other supplies and services ordered under such documents shall be determined in accordance with this clause.

(End of clause)



**I.5. Notification of Employee Rights Concerning Payment of Union Dues or Fees (FAR 52.222-39) (DEC 2004)**

- (a) Definition as used in this clause; "United States" means the 50 States, the District of Columbia, Puerto Rico, the Northern Mariana Islands, American Samoa, Guam, the U.S. Virgin Islands, and Wake Island.
- (b) Except as provided in paragraph (e) of this clause, during the term of this contract, the Contractor shall post a notice, in the form of a poster, informing employees of their rights concerning union membership and payment of union dues and fees, in conspicuous places in and about all its plants and offices, including all places where notices to employees are customarily posted. The notice shall include the following information (except that the information pertaining to National Labor Relations Board shall not be included in notices posted in the plants or offices of carriers subject to the Railway Labor Act, as amended (45 U.S.C. 151-188)).

**Notice to Employees**

Under Federal law, employees cannot be required to join a union or maintain membership in a union in order to retain their jobs. Under certain conditions, the law permits a union and an employer to enter into a union-security agreement requiring employees to pay uniform periodic dues and initiation fees. However, employees who are not union members can object to the use of their payments for certain purposes and can only be required to pay their share of union costs relating to collective bargaining, contract administration, and grievance adjustment.

If you do not want to pay that portion of dues or fees used to support activities not related to collective bargaining, contract administration, or grievance adjustment, you are entitled to an appropriate reduction in your payment. If you believe that you have been required to pay dues or fees used in part to support activities not related to collective bargaining, contract administration, or grievance adjustment, you may be entitled to a refund and to an appropriate reduction in future payments.

For further information concerning your rights, you may wish to contact the National Labor Relations Board (NLRB) either at one of its Regional offices or at the following address or toll free number:

National Labor Relations Board  
Division of Information  
1099 14th Street, N.W.  
Washington, DC 20570  
1-866-667-6572  
1-866-316-6572 (TTY)

To locate the nearest NLRB office, see NLRB's website at <http://www.nlr.gov>.

- (c) The Contractor shall comply with all provisions of Executive Order 13201 of February 17, 2001, and related implementing regulations at 29 CFR Part 470, and orders of the Secretary of Labor.
- (d) In the event that the Contractor does not comply with any of the requirements set forth in paragraphs (b), (c), or (g), the Secretary may direct that this contract be cancelled, terminated, or suspended in whole or in part, and declare the Contractor ineligible for further Government contracts in accordance with procedures at 29 CFR Part 470, Subpart B—Compliance Evaluations, Complaint Investigations and Enforcement Procedures. Such other sanctions or remedies may be imposed as are provided by 29 CFR Part 470, which implements Executive Order 13201, or as are otherwise provided by law.
- (e) The requirement to post the employee notice in paragraph (b) does not apply to—
  - (1) Contractors and subcontractors that employ fewer than 15 persons;
  - (2) Contractor establishments or construction work sites where no union has been formally recognized by the Contractor or certified as the exclusive bargaining representative of the Contractor's employees;
  - (3) Contractor establishments or construction work sites located in a jurisdiction named in the definition of the United States in which the law of that jurisdiction forbids enforcement of union-security agreements;
  - (4) Contractor facilities where upon the written request of the Contractor, the Department of Labor Deputy Assistant Secretary for Labor-Management Programs has waived the posting requirements with respect to any of the Contractor's facilities if the Deputy Assistant Secretary finds that the Contractor has demonstrated that—
    - (i) The facility is in all respects separate and distinct from activities of the Contractor related to the performance of a contract; and
    - (ii) Such a waiver will not interfere with or impede the effectuation of the Executive order; or
  - (5) Work outside the United States that does not involve the recruitment or employment of workers within the United States.
- (f) The Department of Labor publishes the official employee notice in two variations; one for contractors covered by the Railway Labor Act and a second for all other contractors. The Contractor shall—
  - (1) Obtain the required employee notice poster from the Division of Interpretations and Standards, Office of Labor-Management Standards, U.S. Department of Labor, 200 Constitution Avenue, NW, Room N-5605, Washington, DC 20210, or from any field office of the Department's Office of Labor-Management Standards or Office of Federal Contract Compliance Programs;
  - (2) Download a copy of the poster from the Office of Labor-Management Standards website at <http://www.olms.dol.gov>; or
  - (3) Reproduce and use exact duplicate copies of the Department of Labor's official poster.

- (g) The Contractor shall include the substance of this clause in every subcontract or purchase order that exceeds the simplified acquisition threshold, entered into in connection with this contract, unless exempted by the Department of Labor Deputy Assistant Secretary for Labor-Management Programs on account of special circumstances in the national interest under authority of 29 CFR 470.3(c). For indefinite quantity subcontracts, the Contractor shall include the substance of this clause if the value of orders in any calendar year of the subcontract is expected to exceed the simplified acquisition threshold. Pursuant to 29 CFR Part 470, Subpart B—Compliance Evaluations, Complaint Investigations and Enforcement Procedures, the Secretary of Labor may direct the Contractor to take such action in the enforcement of these regulations, including the imposition of sanctions for noncompliance with respect to any such subcontract or purchase order. If the Contractor becomes involved in litigation with a subcontractor or vendor, or is threatened with such involvement, as a result of such direction, the Contractor may request the United States, through the Secretary of Labor, to enter into such litigation to protect the interests of the United States.

(End of clause)

**I.6. 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-16, and is for information only, and should not be considered as a Wage Determination.

(End of clause)

**I.7. Rights and Data – General; as Modified by NFS 1852.227-14 (52.227-14) (DEC 2007)  
Alternate II (DEC 2007) and Alternate III (DEC 2007)**

(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 paragraph (g)(3) 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 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 rights 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 the 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, without prior approval of the Contracting Officer, assert 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 an 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 the 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 paragraph (c)(1) of this clause or, if such data are restricted computer software, the Government shall acquire a copyright license as set forth in paragraph (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 that contain restrictive markings, the Contractor shall treat the data in accordance with such markings unless specifically authorized otherwise in writing by the Contracting Officer.
- (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) if included in this clause, and use of the notices is not authorized by this clause, or if the 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 paragraph (e)(1)(i) of this clause, the Contracting Officer will consider such written justification and determine whether or not the markings are to be cancelled 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 will 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 will 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 paragraph (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 the clause from bringing a claim, in accordance with the Disputes clause of this contract, that may arise as the 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 the data, permission to have authorized notices placed on the data at the Contractor's expense. 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 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:
  - (b) This notice shall be marked on any reproduction of these data, in whole or in part.
- (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.
- (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 those 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.8. FAR 52.227-23 Rights to Proposal Data (Technical) (FAR 52.227-23) (JUN 1987)**

Except for data contained on pages TBD, 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 TBD, upon which this contract is based.

(End of clause)

**I.9. Submission of Transportation Documents for Audit (FAR 52.247-67) (FEB 2006)**

(a) The Contractor shall submit to the address identified below, for prepayment audit, transportation documents on which the United States will assume freight charges that were paid—

(1) By the Contractor under a cost-reimbursement contract; and

(2) By a first-tier subcontractor under a cost-reimbursement subcontract there under.

(b) Cost-reimbursement Contractors shall only submit for audit those bills of lading with freight shipment charges exceeding \$100. Bills under \$100 shall be retained on-site by the Contractor and made available for on-site audits. This exception only applies to freight shipment bills and is not intended to apply to bills and invoices for any other transportation services.

(c) Contractors shall submit the above referenced transportation documents to

NASA/JSC  
2101 NASA Parkway  
Houston, TX 77058-3696  
Attn: Mail code: JB7

**I.10. 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 these addresses:

Federal Acquisition Regulation (FAR) clauses: <http://www.acqnet.gov/far/>

NASA FAR Supplement (NFS) clauses:

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

(End of clause)

**I.11. 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](http://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 the ADL.

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.12. Ombudsman (NFS 1852.215-84) (OCT 2003) Alternate I (JUN 2000)**

- (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:

Melanie Saunders/ AC  
2101 NASA Parkway  
Houston, TX 77058  
Phone: 281-244-7925  
FAX: 281-483-2200

- (c) If this is a task or delivery order contract, the ombudsman shall review complaints from contractors and ensure they are afforded a fair opportunity to be considered, consistent with the procedures of the contract.

Concerns, issues, disagreements, and recommendations which cannot be resolved at the installation may be referred to the NASA ombudsman, the Director of the Contract Management Division, Diane S. Thompson, at 202-358-0514, e-mail [Diane.Thompson@nasa.gov](mailto:Diane.Thompson@nasa.gov). 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.13. NASA 8 Percent Goal (NFS 1852.219-76) (JULY 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.14. NASA Mentor-Protégé Program (NFS 1852.219-77) (MAY 2009)**

- (a) Prime contractors are encouraged to participate in the NASA Mentor-Protégé Program for the purpose of providing developmental assistance to eligible protégé entities to enhance their capabilities and increase their participation in NASA contracts.
- (b) The Program consists of:
  - (1) Mentors, which are large businesses and prime contractors with at least one active and approved NASA subcontracting plan;
  - (2) Protégés, which are subcontractors to the prime contractor. Protégés must qualify as certified small disadvantaged business concerns, women-owned small business concerns, veteran-owned or service-disabled veteran-owned small business concerns, HUBZone small business concerns, Historically Black Colleges and Universities, minority institutions of higher education, meeting the qualifications defined in FAR Part 2, Definitions of Parts and Term, active NASA SBIR Phase II companies or nonprofit agencies employing people who are blind or severely disabled as defined in 41 CFR Chapter 51.
  - (3) Mentor-protégé agreements endorsed by the cognizant NASA centers and approved by the NASA Office of Small Business Programs (OSBP);
  - (4) In contracts with award fee incentives, potential for payment of an award fee for voluntary participation and successful performance in the Mentor-Protégé Program, in accordance with NFS 1819.7208.
- (c) Mentor participation in the Program, described in NFS 1819.72, means providing technical, managerial and financial assistance to aid protégés in developing requisite high-tech expertise and business systems to compete for and successfully perform NASA contracts and subcontracts.
- (d) Contractors interested in participating in the program are encouraged to contact the NASA OSBP, Washington, DC 20546, (202) 358-2088, for further information.

(End of clause)

**I.15. Access to Sensitive Information (NFS 1852.237-72) (JUNE 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 Avoidance Plan, 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.16. 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 NFS clause at 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 numbers or other identification of pages].

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 NFS clause at 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 NFS clause at 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 Avoidance Plan, 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 NFS clause at 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.17. Engineering Change Proposals NFS 1852.243-70 (OCT 2001)**

- (a) Definitions.

"ECP" means an Engineering Change Proposal (ECP) which is a proposed engineering change and the documentation by which the change is described, justified, and submitted to the procuring activity for approval or disapproval.

- (b) Either party to the contract may originate ECPs. Implementation of an approved ECP may occur by either a supplemental agreement or, if appropriate, as a written change order to the contract.
- (c) Any ECP submitted to the Contracting Officer shall include a "not-to-exceed" TBD increase or decrease adjustment amount, if any, and the required TBD adjustment, if any, acceptable to the originator of the ECP. If the change is originated within the Government, the Contracting Officer shall obtain a written agreement with the contractor regarding the "not-to-exceed" TBD and TBD adjustments, if any, prior to issuing an order for implementation of the change.
- (d) After submission of a contractor initiated ECP, the contracting officer may require the contractor to submit the following information:
  - (1) Cost or pricing data in accordance with FAR 15.403-5 if the proposed change meets the criteria for its submission under FAR 15.403-4; or
  - (2) Information other than cost or pricing data adequate for contracting officer determination of price reasonableness or cost realism. The contracting officer reserves the right to request additional information if that provided by the contractor is considered inadequate for that purpose. If the contractor claims applicability of one of the exceptions to submission of cost or pricing data, it shall cite the exception and provide rationale for its applicability.
- (e) If the ECP is initiated by NASA, the contracting officer shall specify the cost information requirements, if any.

(End of clause)

**I. 18 52.232-99, Providing Accelerated Payment to Small Business Subcontractors  
(AUG 2012)(DEVIATION)**

The contracting officer shall insert the following clause in all solicitations and resultant contracts.

**PROVIDING ACCELERATED PAYMENT TO SMALL BUSINESS SUBCONTRACTORS**

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.19 52.204–15, Service Contract Reporting Requirements for Indefinite-Delivery Contracts (JAN 2014)**

(a) Definitions.

“First-tier subcontract” means a subcontract awarded directly by the Contractor for the purpose of acquiring supplies or services (including construction) for performance of a prime contract. It does not include the Contractor’s supplier agreements with vendors, such as long-term arrangements for materials or supplies that benefit multiple contracts and/or the costs of which are normally applied to a Contractor’s general and administrative expenses or indirect costs.

(b) The Contractor shall report, in accordance with paragraphs (c) and (d) of this clause, annually by October 31, for services performed during the preceding Government fiscal year (October 1-September 30) under this contract for orders that exceed the thresholds established in [4.1703\(a\)\(2\)](#).

(c) The Contractor shall report the following information:

(1) Contract number and order number.

(2) The total dollar amount invoiced for services performed during the previous Government fiscal year under the order.

(3) The number of Contractor direct labor hours expended on the services performed during the previous Government fiscal year.

(4) Data reported by subcontractors under paragraph (f) of this clause.

(d) The information required in paragraph (c) of this clause shall be submitted via the internet at [www.sam.gov](http://www.sam.gov). (See SAM User Guide). If the Contractor fails to submit the report in a timely manner, the Contracting Officer will exercise appropriate contractual remedies. In addition, the Contracting Officer will make the Contractor’s failure to comply with the reporting requirements a part of the Contractor’s performance information under FAR [Subpart 42.15](#).

(e) Agencies will review Contractor reported information for reasonableness and consistency with available contract information. In the event the agency believes that revisions to the Contractor reported information are warranted, the agency will notify the Contractor no later than November 15. By November 30, the Contractor shall revise the report, or document its rationale for the agency.

(f)(1) The Contractor shall require each first-tier subcontractor providing services under this contract, with subcontract(s) each valued at or above the thresholds set forth in [4.1703\(a\)\(2\)](#), to provide the following detailed information to the Contractor in sufficient time to submit the report:

(i) Subcontract number (including subcontractor name and DUNS number), and

(ii) The number of first-tier subcontractor direct-labor hours expended on the services performed during the previous Government fiscal year.

(2) The Contractor shall advise the subcontractor that the information will be made available to the public as required by section 743 of Division C of the Consolidated Appropriations Act, 2010.



(End of clause)

All solicitations issued after January 23, 2-14 shall use FAR clause 52.219-9 (Deviation) in lieu 52.219-9 when a small business subcontract plan is required in accordance with FAR 19.702. Solicitations shall not include NFS clause 1852.219-75. For existing solicitations already issued or awarded contracts which contain 52.219-9, the contracting officer is encouraged to replace 52.219-9 with 52.219-9 (Deviation). If the contracting officer replaces 52.219-9 with 52.219-9 (Deviation), NFS clause 1852.219-75 shall also be removed. The change lessens the reporting requirements on prime contractors and should be accomplished in return for consideration from the contractor, or, at a minimum, without cost to the Government due to the corresponding decrease in Government processing and review effort, as appropriate.

(End of clause)

**I.20                    52.219-9, Small Business Subcontracting Plan (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) The offeror, upon request by the Contracting Officer, shall submit and negotiate a subcontracting plan, where applicable, that separately addresses subcontracting with small business concerns, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business concerns, small disadvantaged business, and with 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 the 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) For DoD and NASA, the report shall be submitted semi-annually for the six months ending March 31 and the twelve months ending September 30. For civilian agencies, 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)**

**[END OF SECTION]**



**SMALL BUSINESS SUBCONTRACTING PLAN**  
**FOR THE**  
**NEUTRAL BUOYANCY LABORATORY/  
SPACE VEHICLE MOCKUP FACILITY**  
**OPERATIONS CONTRACT**  
**CONTRACT NO. NNJ10HD35C**

**February 7, 2014**

**Revision C**

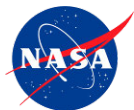


Prepared for:

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Prepared by:

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## PREFACE

This document, the Neutral Buoyancy Laboratory/Space Vehicle Mockup Facility (NBL/SVMF) Small Business Subcontracting Plan, was prepared for the NASA Johnson Space Center by Team Raytheon. It is submitted in accordance with Data Requirements Description (DRD) 09, Contract Number NNJ10HD35C.

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**SMALL BUSINESS SUBCONTRACTING PLAN**

**FOR THE**

**NEUTRAL BUOYANCY LABORATORY/**

**SPACE VEHICLE MOCKUP FACILITY**

**OPERATIONS CONTRACT**

**CONTRACT NO. NNJ10HD35C**

**(b) (4)**

02/07/2014

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02/06/2014

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## DOCUMENT CHANGE/REVISION LOG

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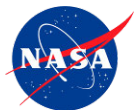


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**SAFETY AND HEALTH PLAN  
FOR THE  
NEUTRAL BUOYANCY LABORATORY/  
SPACE VEHICLE MOCKUP FACILITY  
OPERATIONS CONTRACT**

**CONTRACT NO. NNJ10HD35C**

**May 11, 2011**



Prepared for:

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## PREFACE

This document, the Neutral Buoyancy Laboratory/Space Vehicle Mockup Facility (NBL/SVMF) Safety and Health Plan, was prepared for the NASA Johnson Space Center by Team Raytheon. It is submitted in accordance with Data Requirements Description (DRD) 17, Contract Number NNJ10HD35C.

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SAFETY AND HEALTH PLAN (DRD-NSOC-17)

FOR THE

NEUTRAL BUOYANCY LABORATORY/

SPACE VEHICLE MOCKUP FACILITY

OPERATIONS CONTRACT

CONTRACT NO. NNJ10HD35C

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## DOCUMENT CHANGE/REVISION LOG

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**CONTINUOUS IMPROVEMENT PLAN  
FOR THE  
NEUTRAL BUOYANCY LABORATORY/  
SPACE VEHICLE MOCKUP FACILITY  
OPERATIONS CONTRACT**

**CONTRACT NO. NNJ10HD35C**

**March 31, 2011**



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## PREFACE

This document, the Neutral Buoyancy Laboratory/Space Vehicle Mockup Facility (NBL/SVMF) Continuous Improvement Plan, was prepared for the NASA Johnson Space Center by Team Raytheon. It is submitted in accordance with Data Requirements Description (DRD) 05, Contract Number NNJ10HD35C.

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CONTINUOUS IMPROVEMENT PLAN (DRD-NSOC-05)

FOR THE  
NEUTRAL BUOYANCY LABORATORY/  
SPACE VEHICLE MOCKUP FACILITY  
OPERATIONS CONTRACT

CONTRACT NO. NNJ10HD35C

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/s/ Susan Sinclair 04/29/11

Susan Sinclair  
EVA, Robotics, and Crew Systems  
Operations Division  
Contracting Officer's Technical  
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NASA Johnson Space Center

/s/ Cynthia Maclean 04/15/11

Cynthia Maclean  
Contracting Officer  
NASA Johnson Space Center

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**EXTERNAL CUSTOMER PLAN  
FOR THE  
NEUTRAL BUOYANCY LABORATORY/  
SPACE VEHICLE MOCKUP FACILITY  
OPERATIONS CONTRACT  
CONTRACT NO. NNJ10HD35C**

**May 31, 2011**



Prepared for:

National Aeronautics and Space Administration  
EVA, Robotics, and Crew Systems  
Operations Division  
Lyndon B. Johnson Space Center  
Houston, Texas 77058

Prepared by:

Raytheon Technical Services Company LLC  
Operations Training and Logistics  
Integrated Training Solutions – Houston Operations  
555 Forge River Road, Suite 120  
Webster, Texas 77598-4357

This Program Plan includes data that shall not be disclosed outside the Government and shall not be duplicated, used, or disclosed - in whole or part in part - for any other purpose. The data subject to this restriction is contained on the following pages.

RAYTHEON PROPRIETARY/COMPETITION SENSITIVE DATA





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## PREFACE

This document, the Neutral Buoyancy Laboratory/Space Vehicle Mockup Facility (NBL/SVMF) External Customer Plan, was prepared for the NASA Johnson Space Center by Team Raytheon. It is submitted in accordance with Data Requirements Description (DRD) 06, Contract Number NNJ10HD35C.

Inputs to the content of this document should be directed to

Larry Chase  
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**EXTERNAL CUSTOMER PLAN  
FOR THE  
NEUTRAL BUOYANCY LABORATORY/  
SPACE VEHICLE MOCKUP FACILITY  
OPERATIONS CONTRACT  
CONTRACT NO. NNJ10HD35C**

---

Larry Chase  
Program Manager  
NBL/SVMF Operations Contract  
Raytheon Technical Services Company, LLC

---

Susan B. Rainwater, Chief  
EVA, Robotics, and Crew Systems  
Operations Division  
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Cynthia W. Maclean  
Contracting Officer  
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**PURSUANT TO 5 USC 552**

**PAGES 6-70 ARE EXEMPT FROM RELEASE IN THEIR ENTIRETY**

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**CONTRACTOR WORK BREAKDOWN  
STRUCTURE AND DICTIONARY  
FOR THE  
NEUTRAL BUOYANCY LABORATORY/  
SPACE VEHICLE MOCKUP FACILITY  
OPERATIONS CONTRACT  
CONTRACT NO. NNJ10HD35C**

**April 4, 2011**



Prepared for:

National Aeronautics and Space Administration  
EVA, Robotics, and Crew Systems  
Operations Division  
Lyndon B. Johnson Space Center  
Houston, Texas 77058

Prepared by:

Raytheon Technical Services Company LLC  
Mission Support Operations (MSO)/  
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Houston Operations  
555 Forge River Road, Suite 120  
Webster, Texas 77598-4357



CONTRACTOR WORK BREAKDOWN  
STRUCTURE AND DICTIONARY  
FOR THE  
NEUTRAL BUOYANCY LABORATORY/  
SPACE VEHICLE MOCKUP FACILITY  
OPERATIONS CONTRACT

CONTRACT NO. NNJ10HD35C

/s/ Larry Chase 04/06/11

Larry Chase  
Program Manager  
Team Raytheon  
NBL/SVMF Operations Contract

/s/ Susan B. Rainwater 04/07/11

Susan B. Rainwater, Chief  
EVA, Robotics & Crew Systems  
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/s/ Michele A. Brekke 04/07/11

Michele A. Brekke  
NSOC Contracting Officer's Technical  
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NASA Johnson Space Center

/s/ Cynthia Maclean 04/15/11

Cynthia Maclean  
Contracting Officer  
NASA Johnson Space Center





## PREFACE

This document, the Neutral Buoyancy Laboratory/Space Vehicle Mockup Facility (NBL/SVMF) Contractor Work Breakdown Structure and Dictionary was prepared for the NASA Johnson Space Center by Team Raytheon. It is submitted in accordance with Data Requirements Description (DRD) 01, Contract Number NNJ10HD35C.

Inputs to the content of this document should be directed to

Larry Chase  
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DRD-NSOC-01  
April 4, 2011



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**PURSUANT TO 5 USC 552**

**PAGES 6-63 ARE EXEMPT FROM RELEASE IN THEIR ENTIRETY**

**PER FOIA EXEMPTION (b)(4)**



**PHASE-IN PLAN  
FOR THE  
NEUTRAL BUOYANCY LABORATORY/  
SPACE VEHICLE MOCKUP FACILITY  
OPERATIONS CONTRACT  
CONTRACT NO. NNJ10HD35C**

**September 8, 2010**



Prepared for:

National Aeronautics and Space Administration  
EVA, Robotics, and Crew Systems  
Operations Division  
Lyndon B. Johnson Space Center  
Houston, Texas 77058

Prepared by:

Raytheon Technical Services Company LLC  
Mission Support Operations (MSO)/Integrated  
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## PREFACE

This document, the Neutral Buoyancy Laboratory/Space Vehicle Mockup Facility (NBL/SVMF) Phase-In Plan, was prepared for the NASA Johnson Space Center by Team Raytheon. It is submitted in accordance with Data Requirements Description (DRD) 10, Contract Number NNJ10HD35C.

Inputs to the content of this document should be directed to

Larry Chase  
Program Manager  
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PHASE-IN PLAN  
FOR THE  
NEUTRAL BUOYANCY LABORATORY/  
SPACE VEHICLE MOCKUP FACILITY  
OPERATIONS CONTRACT  
  
CONTRACT NO. NNJ10HD35C

/s/ email approval Larry Chase 8/16/10

Larry Chase  
Program Manager  
Team Raytheon  
NBL/SVMF Operations Contract

/s/ email approval Michael G. Hess 09/15/10

Michael G. Hess, Chief  
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/s/ email approval Susan Sinclair 09/10/10

Susan Sinclair  
Contracting Officer's Technical Representative  
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**PURSUANT TO 5 USC 552**

**PAGES 6-26 ARE EXEMPT FROM RELEASE IN THEIR ENTIRETY**

**PER FOIA EXEMPTION (b)(4)**

# Attachment J-08

## IDIQ Labor Rates Table

### IDIQ PRE-ESTABLISHED LOADED LABOR RATES (IDIQ)

These following labor, indirect, and fee rates shall be used in establishment of the estimated cost of individual task orders. The labor rates are fully burdened composite team rates (prime and all subcontractors); but exclude prime fee. The indirect rates are those rates that may be applied to non-labor resources such as materials and travel. The fee rates are those used to establish the target and maximum incentive fee pools as described in Clause B.3, *Contract Value*.

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.

CONTRACT RATES – Straight Time					
Contract Fully Burdened Labor Rates	Contract Base Period			Option 1 Contract Year 4 (FY14)	Option 2 Contract Year 5 (FY15)
	Year 1 (FY11)	Year 2 (FY12)	Year 3 (FY13)		
Program Manager	(b) (4)				
Manager					
Supervisor II					
Supervisor I					
Operations Expert					
Structural Engineer/Analyst					
Engineer IV					
Engineer III					
Engineer II					
Engineer I					
Administrative Specialist III					
Administrative Specialist II					
Administrative Specialist I					
Technician III					
Technician II					
Technician I					
NBL Dive Operations Specialist IV					
NBL Dive Operations Specialist III					
NBL Dive Operations Specialist II					
NBL Dive Operations Specialist I					
IT III					
IT II					
IT I					
Business Specialist II					
Business Specialist I					
Technical Professional III					
Technical Professional II					
Technical Professional I					
Indirect cost rate applied to Non-Labor Resources if required by a Delivery Order:					
Material Burden	(b) (4)				
General and Administrative					
Maximum Fee Rate					

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The maximum NTE fee rate for all delivery orders is 10%.  
\* The offeror may list additional rates, if applicable.

CONTRACT RATES - Overtime					
Contract Fully Burdened Labor Rates	Contract Base Period			Option 1 Contract Year 4 (FY14)	Option 2 Contract Year 5 (FY15)
	Year 1 (FY11)	Year 2 (FY12)	Year 3 (FY13)		
Program Manager	(b) (4)				
Manager					
Supervisor II					
Supervisor I					
Operations Expert					
Structural Engineer/Analyst					
Engineer IV					
Engineer III					
Engineer II					
Engineer I					
Administrative Specialist III					
Administrative Specialist II					
Administrative Specialist I					
Technician III					
Technician II					
Technician I					
NBL Dive Operations Specialist IV					
NBL Dive Operations Specialist III					
NBL Dive Operations Specialist II					
NBL Dive Operations Specialist I					
IT III					
IT II					
IT I					
Business Specialist II					
Business Specialist I					
Technical Professional III					
Technical Professional II					
Technical Professional I					
Indirect cost rate applied to Non-Labor Resources if required by a Delivery Order:					
Material Burden	(b) (4)				
General and Administrative					
Maximum Fee Rate					

NSOC Contract – NNJ10HD35C  
Modification 149

CONTRACT RATES - Straight Time				
<u>Contract Fully Burdened Labor Rates</u>	Extension Base Period		Option 1	Option 2
	Extension	Extension		
	Year 1 (FY16)	Year 2 (FY17)	Extension Year 3 (FY18)	Extension Year 4 (FY19)
Manager	(b) (4)			
Supervisor II				
Supervisor I				
Engineer IV				
Engineer III				
Engineer II				
Engineer I				
Structural Engineer/Analyst				
Administrative Specialist III				
Administrative Specialist II				
Administrative Specialist I				
Operations Expert				
Technician III				
Technician II				
Technician I				
NBL Dive Operations Specialist IV				
NBL Dive Operations Specialist III				
NBL Dive Operations Specialist II				
NBL Dive Operations Specialist I				
IT III				
IT II				
IT I				
Business Specialist II				
Business Specialist I				
Technical Professional III				
Technical Professional II				
Technical Professional I				
Engineering Infrastructure Services				
Indirect cost rate applied to Non-Labor Resources if required by a Delivery Order:				
Material Burden	(b) (4)			
General and Administrative				
Maximum Fee Rate				



NSOC Contract – NNJ10HD35C  
Modification 149

CONTRACT RATES - Over Time				
Contract Fully Burdened Labor Rates	Extension Base Period		Option 1	Option 2
	Extension Year 1 (FY16)	Extension Year 2 (FY17)	Extension Year 3 (FY18)	Extension Year 4 (FY19)
Manager	(b) (4)			
Supervisor II				
Supervisor I				
Engineer IV				
Engineer III				
Engineer II				
Engineer I				
Structural Engineer/Analyst				
Administrative Specialist III				
Administrative Specialist II				
Administrative Specialist I				
Operations Expert				
Technician III				
Technician II				
Technician I				
NBL Dive Operations Specialist IV				
NBL Dive Operations Specialist III				
NBL Dive Operations Specialist II				
NBL Dive Operations Specialist I				
IT III				
IT II				
IT I				
Business Specialist II				
Business Specialist I				
Technical Professional III				
Technical Professional II				
Technical Professional I				
Engineering Infrastructure Services				
Indirect cost rate applied to Non-Labor Resources if required by a Delivery Order:				
Material Burden	(b) (4)			
General and Administrative				
Maximum Fee Rate				

# Attachment J-09

## Data Requirements List (DRL)

**JSC DATA REQUIREMENTS LIST (DRL)**Page 1 of 11(See reverse for instructions)  
Based on JSC-STD-123

a. Title of Contract, Project, SOW, etc. NBL/SVMF Operations Contract (NSOC)			b. Contract/RFP No. NNJ09040809R		c. DRL Date/Mod Date November 17, 2009	
1. Line item no. 01	2. DRD Title Contract Work Breakdown Structure and Dictionary	3. Data type: <input checked="" type="checkbox"/> (1) Written approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request	4. Frequency Each CWBS update	5. As-of-date	6. 1 <sup>st</sup> subm. date With Proposal	7. Copies a. Type b. Number Per CO letter
	8. Distribution ( <i>Continue on a blank sheet if needed</i> ) Per Contracting Officer's letter.		9. Remarks			
1. Line item no. 02	2. DRD Title Management Plan	3. Data type: <input checked="" type="checkbox"/> (1) Written approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request	4. Frequency As req'd	5. As-of-date	6. 1 <sup>st</sup> subm. date With Proposal	7. Copies a. Type b. Number Per CO letter
	8. Distribution ( <i>Continue on a blank sheet if needed</i> ) Per Contracting Officer's letter.		9. Remarks			
1. Line item no. 03	2. DRD Title Configuration Management Plan	3. Data type: <input checked="" type="checkbox"/> (1) Written approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request	4. Frequency As req'd	5. As-of-date	6. 1 <sup>st</sup> subm. date See remarks	7. Copies a. Type b. Number Per CO letter
	8. Distribution ( <i>Continue on a blank sheet if needed</i> ) Per Contracting Officer's letter.		9. Remarks Initial - Contract award + 15 days			
1. Line item no. 04	2. DRD Title Contract Configuration Management Plan	3. Data type: <input checked="" type="checkbox"/> (1) Written approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request	4. Frequency As req'd	5. As-of-date	6. 1 <sup>st</sup> subm. date See Remarks	7. Copies a. Type b. Number Per CO letter
	8. Distribution ( <i>Continue on a blank sheet if needed</i> ) Per Contracting Officer's letter.		9. Remarks Initial – Contract award + 35 days			

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**JSC DATA REQUIREMENTS LIST (DRL)**Page 2 of 11(See reverse for instructions)  
Based on JSC-STD-123

a. Title of Contract, Project, SOW, etc. NBL/SVMF Operations Contract (NSOC)			b. Contract/RFP No. NNJ09040809R		c. DRL Date/Mod Date November 17, 2009	
1. Line item no. 05	2. DRD Title Continuous Improvement Plan	3. Data type: <input checked="" type="checkbox"/> (1) Written approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request	4. Frequency See remarks	5. As-of-date	6. 1 <sup>st</sup> subm. date With Proposal	7. Copies a. Type b. Number Per CO letter
	8. Distribution ( <i>Continue on a blank sheet if needed</i> ) Per Contracting Officer's letter.		9. Remarks Frequency - Annually, 30 days prior to the start of every contract year.			
1. Line item no. 06	2. DRD Title External Customers Plan	3. Data type: <input checked="" type="checkbox"/> (1) Written approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request	4. Frequency See Remarks	5. As-of-date	6. 1 <sup>st</sup> subm. date With Proposal	7. Copies a. Type b. Number Per CO letter
	8. Distribution ( <i>Continue on a blank sheet if needed</i> ) Per Contracting Officer's letter.		9. Remarks Frequency - Update after approval of plan + 1 year, afterward as required.			
1. Line item no. 07	2. DRD Title Risk Management Plan	3. Data type: <input checked="" type="checkbox"/> (1) Written approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request	4. Frequency As Required	5. As-of-date	6. 1 <sup>st</sup> subm. date See Remarks	7. Copies a. Type b. Number Per CO letter
	8. Distribution ( <i>Continue on a blank sheet if needed</i> ) Per Contracting Officer's letter.		9. Remarks • Initial – Start of contract + 15 calendar days.			
1. Line item no. 08	2. DRD Title Fiscal Year (FY) Operating Plan and Planning, Programming, Budgeting, and Execution (PPBE)	3. Data type: <input checked="" type="checkbox"/> (1) Written approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request	4. Frequency See remarks	5. As-of-date	6. 1 <sup>st</sup> subm. date See remarks	7. Copies a. Type b. Number Per CO letter
	8. Distribution ( <i>Continue on a blank sheet if needed</i> ) Per Contracting Officer's letter.		9. Remarks Frequency - FY Op Plan - 60 days prior to the end of FY; PPBE: As required.  Initial: FY Op Plan - Contract start + 30 days; PPBE: As required by TIRF.			

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**JSC DATA REQUIREMENTS LIST (DRL)**Page 3 of 11(See reverse for instructions)  
Based on JSC-STD-123

a. Title of Contract, Project, SOW, etc. NBL/SVMF Operations Contract (NSOC)			b. Contract/RFP No. NNJ09040809R		c. DRL Date/Mod Date November 17, 2009	
1. Line item no. 09	2. DRD Title Small Business Subcontracting Plan and Reports	3. Data type: <input checked="" type="checkbox"/> (1) Written approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request	4. Frequency See Remarks	5. As-of-date	6. 1 <sup>st</sup> subm. date With Proposal	7. Copies a. Type b. Number Per CO letter
	8. Distribution ( <i>Continue on a blank sheet if needed</i> ) Per Contracting Officer's letter.		9. Remarks Subcontracting Plan to be updated in accordance with FAR 19.702			
1. Line item no. 10	2. DRD Title Phase-In Plan	3. Data type: <input checked="" type="checkbox"/> (1) Written approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request	4. Frequency N/A	5. As-of-date	6. 1 <sup>st</sup> subm. date With Proposal	7. Copies a. Type b. Number Per CO letter
	8. Distribution ( <i>Continue on a blank sheet if needed</i> ) ▪ Distribution per Contracting Officer's letter		9. Remarks			
1. Line item no. 11	2. DRD Title Government Property Management Plan	3. Data type: <input checked="" type="checkbox"/> (1) Written approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request	4. Frequency As Req'd	5. As-of-date	6. 1 <sup>st</sup> subm. date With Proposal	7. Copies a. Type b. Number Per CO letter
	8. Distribution ( <i>Continue on a blank sheet if needed</i> ) Per Contracting Officer's letter.		9. Remarks			
1. Line item no. 12	2. DRD Title Change Control Process and Plan	3. Data type: <input checked="" type="checkbox"/> (1) Written approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request	4. Frequency As req'd	5. As-of-date	6. 1 <sup>st</sup> subm. date With Proposal	7. Copies a. Type b. Number Per CO letter
	8. Distribution ( <i>Continue on a blank sheet if needed</i> ) Per Contracting Officer's letter.		9. Remarks			

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**JSC DATA REQUIREMENTS LIST (DRL)**Page 4 of 11(See reverse for instructions)  
Based on JSC-STD-123

a. Title of Contract, Project, SOW, etc. <b>NBL/SVMF Operations Contract (NSOC)</b>			b. Contract/RFP No. <b>NNJ09040809R</b>		c. DRL Date/Mod Date <b>November 17, 2009</b>	
1. Line item no. <b>13</b>	2. DRD Title <b>Reserved</b>	3. Data type: <input type="checkbox"/> (1) Written approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request	4. Frequency	5. As-of-date	6. 1 <sup>st</sup> subm. date	7. Copies a. Type b. Number
	8. Distribution ( <i>Continue on a blank sheet if needed</i> )		9. Remarks			
1. Line item no. <b>14</b>	2. DRD Title <b>Maintenance Plan</b>	3. Data type: <input checked="" type="checkbox"/> (1) Written approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request	4. Frequency <b>As req'd</b>	5. As-of-date	6. 1 <sup>st</sup> subm. date <b>With Proposal</b>	7. Copies a. Type b. Number <b>Per CO letter</b>
	8. Distribution ( <i>Continue on a blank sheet if needed</i> ) <b>Per Contracting Officer's letter.</b>		9. Remarks <b>Initial – Due with proposal; all sections labeled as Part (2) not required with proposal.</b>			
1. Line item no. <b>15</b>	2. DRD Title <b>Reports Required for Logistics Operations</b>	3. Data type: <input type="checkbox"/> (1) Written approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request	4. Frequency <b>See Remarks</b>	5. As-of-date	6. 1 <sup>st</sup> subm. date <b>N/A</b>	7. Copies a. Type b. Number <b>Per CO letter</b>
	8. Distribution ( <i>Continue on a blank sheet if needed</i> ) <b>JF5/JSC Property Administrator</b>		9. Remarks <b>Frequency - Semi-Annually by 3/25 and 9/25</b>			
1. Line item no. <b>16</b>	2. DRD Title <b>Quality Plan and Reports</b>	3. Data type: <input type="checkbox"/> (1) Written approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request	4. Frequency <b>Annually</b>	5. As-of-date	6. 1 <sup>st</sup> subm. date <b>With Proposal</b>	7. Copies a. Type b. Number <b>Per CO letter</b>
	8. Distribution ( <i>Continue on a blank sheet if needed</i> ) <b>Per Contracting Officer's letter.</b>		9. Remarks			

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**JSC DATA REQUIREMENTS LIST (DRL)**Page 5 of 11(See reverse for instructions)  
Based on JSC-STD-123

a. Title of Contract, Project, SOW, etc. NBL/SVMF Operations Contract (NSOC)			b. Contract/RFP No. NNJ09040809R		c. DRL Date/Mod Date November 17, 2009	
1. Line item no. 17	2. DRD Title Safety and Health Plan	3. Data type: <input checked="" type="checkbox"/> (1) Written approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request	4. Frequency Annually	5. As-of-date	6. 1 <sup>st</sup> subm. date With proposal	7. Copies a. Type b. Number Per CO letter
	8. Distribution ( <i>Continue on a blank sheet if needed</i> ) Per Contracting Officer's letter.		9. Remarks			
1. Line item no. 18	2. DRD Title Safety and Health Program Self-Evaluation	3. Data type: <input type="checkbox"/> (1) Written approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request	4. Frequency See remarks	5. As-of-date	6. 1 <sup>st</sup> subm. date N/A	7. Copies a. Type b. Number Per CO letter
	8. Distribution ( <i>Continue on a blank sheet if needed</i> ) Per Contracting Officer's letter.		9. Remarks Frequency: September 30 of each year			
1. Line item no. 19	2. DRD Title Monthly Safety and Health Metrics	3. Data type: <input type="checkbox"/> (1) Written approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request	4. Frequency See Remarks	5. As-of-date	6. 1 <sup>st</sup> subm. date See Remarks	7. Copies a. Type b. Number Per CO letter
	8. Distribution ( <i>Continue on a blank sheet if needed</i> ) Per Contracting Officer's letter.		9. Remarks Initial –Contract start + 30 days; Frequency – Monthly by 10 <sup>th</sup> of month following month being reported			
1. Line item no. 20	2. DRD Title System Safety Program Plan	3. Data type: <input checked="" type="checkbox"/> (1) Written approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request	4. Frequency As Req'd	5. As-of-date	6. 1 <sup>st</sup> subm. date See Remarks	7. Copies a. Type b. Number Per CO letter
	8. Distribution ( <i>Continue on a blank sheet if needed</i> ) Per Contracting Officer's letter.		9. Remarks Initial –Contract award + 28 days			

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**JSC DATA REQUIREMENTS LIST (DRL)**Page 6 of 11(See reverse for instructions)  
Based on JSC-STD-123

a. Title of Contract, Project, SOW, etc. NBL/SVMF Operations Contract (NSOC)			b. Contract/RFP No. NNJ09040809R		c. DRL Date/Mod Date November 17, 2009	
1. Line item no. 21	2. DRD Title Safety Lessons Learned	3. Data type: <input checked="" type="checkbox"/> (1) Written approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request	4. Frequency As req'd	5. As-of-date	6. 1 <sup>st</sup> subm. date See Remarks	7. Copies a. Type b. Number Per CO letter
	8. Distribution ( <i>Continue on a blank sheet if needed</i> ) Per Contracting Officer's letter.		9. Remarks Initial Plan: Contract start. Lessons-learned: Data entry to the JSC LLDB or NASA LLIS within 30 days of a triggering event; Within 30 days of a program milestone, mishap investigation, or hazard or other engineering analysis/evaluation is completed; or 30 days prior to end of contract evaluation period or 45 days prior to end of contract whichever is applicable			
1. Line item no. 22	2. DRD Title Environmental and Energy Consuming Product Compliance Reports	3. Data type: <input type="checkbox"/> (1) Written approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request	4. Frequency Annually	5. As-of-date	6. 1 <sup>st</sup> subm. date N/A	7. Copies a. Type b. Number Per CO letter
	8. Distribution ( <i>Continue on a blank sheet if needed</i> ) Per Contracting Officer's letter.		9. Remarks			
1. Line item no. 23	2. DRD Title Non-conformance Record Template	3. Data type: <input checked="" type="checkbox"/> (1) Written approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request	4. Frequency As req'd	5. As-of-date	6. 1 <sup>st</sup> subm. date See Remarks	7. Copies a. Type b. Number Per CO letter
	8. Distribution ( <i>Continue on a blank sheet if needed</i> ) Per Contracting Officer's letter.		9. Remarks Initial – Contract start + 14 days			
1. Line item no. 24	2. DRD Title Government Industry Database for Electronic Parts (GIDEP) and NASA Advisory Problem Data Sharing and Utilization Program Documentation and Reporting	3. Data type: <input type="checkbox"/> (1) Written approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request	4. Frequency As req'd	5. As-of-date	6. 1 <sup>st</sup> subm. date See Remarks	7. Copies a. Type b. Number Per CO letter
	8. Distribution ( <i>Continue on a blank sheet if needed</i> ) Per Contracting Officer's letter.		9. Remarks Initial – Contract award + 60 days. Problem data assessments - 30 calendar days after receipt of the problem data. Refer to DRD for additional details.			

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a. Title of Contract, Project, SOW, etc. NBL/SVMF Operations Contract (NSOC)			b. Contract/RFP No. NNJ09040809R		c. DRL Date/Mod Date November 17, 2009	
1. Line item no. 25	2. DRD Title Contractor Organizational Conflicts of Interest (OCI) Avoidance Plan	3. Data type: <input type="checkbox"/> (1) Written approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request	4. Frequency Annual	5. As-of-date	6. 1 <sup>st</sup> subm. date See Remarks	7. Copies a. Type b. Number Per CO letter
	8. Distribution ( <i>Continue on a blank sheet if needed</i> ) Per Contracting Officer's letter.		9. Remarks Initial – Contract award + 30 days			
1. Line item no. 26	2. DRD Title Emergency Preparedness and Disaster Recovery Plan	3. Data type: <input checked="" type="checkbox"/> (1) Written approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request	4. Frequency Annually	5. As-of-date	6. 1 <sup>st</sup> subm. date See Remarks	7. Copies a. Type b. Number Per CO letter
	8. Distribution ( <i>Continue on a blank sheet if needed</i> ) Per Contracting Officer's letter.		9. Remarks Initial – Contract start + 15 calendar days			
1. Line item no. 27	2. DRD Title Records Management Plan	3. Data type: <input checked="" type="checkbox"/> (1) Written approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request	4. Frequency Annual	5. As-of-date	6. 1 <sup>st</sup> subm. date See Remarks	7. Copies a. Type b. Number Per CO letter
	8. Distribution ( <i>Continue on a blank sheet if needed</i> ) Per Contracting Officer's letter.		9. Remarks Initial: Contract award + 10 days			
1. Line item no. 28	2. DRD Title Information Technology (IT) Plan and Reports	3. Data type: <input checked="" type="checkbox"/> (1) Written approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request	4. Frequency See Remarks	5. As-of-date	6. 1 <sup>st</sup> subm. date See Remarks	7. Copies a. Type b. Number Per CO letter
	8. Distribution ( <i>Continue on a blank sheet if needed</i> ) Per Contracting Officer's letter.		9. Remarks • Initial – Plan: Contract award + 21 days; • Frequency – Plan: as required by the MOD Information Technology Management Plan; Report: Per COTR TIRF			

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a. Title of Contract, Project, SOW, etc. NBL/SVMF Operations Contract (NSOC)			b. Contract/RFP No. NNJ09040809R		c. DRL Date/Mod Date November 17, 2009	
1. Line item no. 29	2. DRD Title Technical Metrics Plan and Reports	3. Data type: <input checked="" type="checkbox"/> (1) Written approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request	4. Frequency See Remarks	5. As-of-date	6. 1 <sup>st</sup> subm. date See Remarks	7. Copies a. Type b. Number Per CO letter
	8. Distribution ( <i>Continue on a blank sheet if needed</i> ) Per Contracting Officer's letter.		9. Remarks Initial - Plan: Contract award + 5 days. Reports: 10 days following close of the first month after approval of the Plan.  Frequency – Plan: Contract start + 1 year. After that as required. Reports: 10 days following close of each month.			
1. Line item no. 30	2. DRD Title Training and Certification Plan	3. Data type: <input type="checkbox"/> (1) Written approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request	4. Frequency As Req'd	5. As-of-date	6. 1 <sup>st</sup> subm. date See Remarks	7. Copies a. Type b. Number Per CO letter
	8. Distribution ( <i>Continue on a blank sheet if needed</i> ) Per Contracting Officer's letter.		9. Remarks Initial –contract start + 15 calendar days			
1. Line item no. 31	2. DRD Title Daily Report	3. Data type: <input type="checkbox"/> (1) Written approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request	4. Frequency See Remarks	5. As-of-date	6. 1 <sup>st</sup> subm. date See remarks	7. Copies a. Type b. Number Per CO letter
	8. Distribution ( <i>Continue on a blank sheet if needed</i> ) Per Contracting Officer's letter.		9. Remarks Initial - Contract start + 1 day  Frequency – Daily. Prepared Monday through Friday and delivered prior to 7:30 a.m. Central Daylight Time (CDT) the following business morning.			
1. Line item no. 32	2. DRD Title Management Review Reports	3. Data type: <input type="checkbox"/> (1) Written approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request	4. Frequency See Remarks	5. As-of-date	6. 1 <sup>st</sup> subm. date See remarks	7. Copies a. Type b. Number Per CO letter
	8. Distribution ( <i>Continue on a blank sheet if needed</i> ) Per Contracting Officer's letter.		9. Remarks Initial - Contract start + 90 days, unless otherwise agreed to with NASA.  Frequency - At an agreed-upon frequency between NASA and the contractor. Report and accompanying review will be conducted no more frequently than monthly and no less frequently than quarterly.			

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a. Title of Contract, Project, SOW, etc. NBL/SVMF Operations Contract (NSOC)			b. Contract/RFP No. NNJ09040809R		c. DRL Date/Mod Date November 17, 2009	
1. Line item no. 33	2. DRD Title NBL Facility Utilization Summary	3. Data type: <input type="checkbox"/> (1) Written approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request	4. Frequency See Remarks	5. As-of-date	6. 1 <sup>st</sup> subm. date See remarks	7. Copies a. Type b. Number Per CO letter
	8. Distribution ( <i>Continue on a blank sheet if needed</i> ) Per Contracting Officer's letter.		9. Remarks Initial – Contract start + 180 days Frequency – every 6 months			
1. Line item no. 34	2. DRD Title NBL In-water Activity Data Pack	3. Data type: <input type="checkbox"/> (1) Written approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request	4. Frequency See Remarks	5. As-of-date	6. 1 <sup>st</sup> subm. date See remarks	7. Copies a. Type b. Number Per CO letter
	8. Distribution ( <i>Continue on a blank sheet if needed</i> ) Per Contracting Officer's letter.		9. Remarks Initial - Contract start + 1 day Frequency - Prepared Monday through Friday and delivered prior to 7:30 a.m. Central Daylight Time (CDT) the following business morning.			
1. Line item no. 35	2. DRD Title NBL Operations Report	3. Data type: <input type="checkbox"/> (1) Written approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request	4. Frequency See Remarks	5. As-of-date	6. 1 <sup>st</sup> subm. date See remarks	7. Copies a. Type b. Number Per CO letter
	8. Distribution ( <i>Continue on a blank sheet if needed</i> ) Per Contracting Officer's letter.		9. Remarks Initial - 5 days following the close of the first month after approval of the plan Frequency - 5 days following the close of each month. (Projects shall be provided weekly)			
1. Line item no. 36	2. DRD Title SVMF and NBL Weekly Report	3. Data type: <input type="checkbox"/> (1) Written approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request	4. Frequency See Remarks	5. As-of-date	6. 1 <sup>st</sup> subm. date See remarks	7. Copies a. Type b. Number Per CO letter
	8. Distribution ( <i>Continue on a blank sheet if needed</i> ) Per Contracting Officer's letter.		9. Remarks Initial: Contract start + 7 days Frequency: Weekly. The SVMF report shall be provided as a briefing at a weekly SVMF status meeting and the NBL report shall be delivered at close of business on Thursday, unless otherwise agreed upon between NASA and the Contractor.			

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a. Title of Contract, Project, SOW, etc. NBL/SVMF Operations Contract (NSOC)			b. Contract/RFP No. NNJ09040809R		c. DRL Date/Mod Date November 17, 2009	
1. Line item no. 37	2. DRD Title NBL and SVMF Databases	3. Data type: <input type="checkbox"/> (1) Written approval <input type="checkbox"/> (2) Mandatory Submittal <input checked="" type="checkbox"/> (3) Submitted upon request	4. Frequency See Remarks	5. As-of-date	6. 1 <sup>st</sup> subm. date See remarks	7. Copies a. Type b. Number Per CO letter
	8. Distribution ( <i>Continue on a blank sheet if needed</i> ) Per Contracting Officer's letter.		9. Remarks Initial – Plan: Contract start + 45 days; Databases: As required to support NBL and SVMF requirements Frequency – Plan: Update as required; Databases: Update as required to ensure all data is correct and up-to-date			
1. Line item no. 38	2. DRD Title Workforce Reports	3. Data type: <input type="checkbox"/> (1) Written approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request	4. Frequency See Remarks	5. As-of-date	6. 1 <sup>st</sup> subm. date See Remarks	7. Copies a. Type b. Number
	8. Distribution ( <i>Continue on a blank sheet if needed</i> ) Per Contracting Officer's letter.		9. Remarks Initial – 10 business days after initial month end Frequency - Monthly Workforce Report: Monthly, no later than the 10th day following the close of the accounting period. As- Requested Workforce Report: As directed and with the FY Operating Plan and PPBE.			
1. Line item no. 39	2. DRD Title NF533 M Cost Reporting with Supplemental Customer Cost Reporting	3. Data type: <input checked="" type="checkbox"/> (1) Written approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request	4. Frequency See Remarks	5. As-of-date	6. 1 <sup>st</sup> subm. date See Remarks	7. Copies a. Type b. Number
	8. Distribution ( <i>Continue on a blank sheet if needed</i> ) Per Contracting Officer's letter.		9. Remarks • Initial - The initial (baseline) report shall be submitted by the contractor within 30 days after authorization to proceed has been granted. In addition to the initial (baseline) report, monthly NF533 reporting shall begin no later than 30 days after the incurrence of cost. • Frequency – Monthly, see DRD for additional details.			
1. Line item no. 40	2. DRD Title Wage, Salary and Fringe Benefit Data	3. Data type: <input type="checkbox"/> (1) Written approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request	4. Frequency See Remarks	5. As-of-date	6. 1 <sup>st</sup> subm. date See Remarks	7. Copies a. Type b. Number Per CO letter
	8. Distribution ( <i>Continue on a blank sheet if needed</i> ) Per Contracting Officer's letter.		9. Remarks Initial – Contract start + 30 days; Frequency – Annually, 90 days prior to the anniversary date of the contract			

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a. Title of Contract, Project, SOW, etc. NBL/SVMF Operations Contract (NSOC)			b. Contract/RFP No. NNJ09040809R		c. DRL Date/Mod Date November 17, 2009	
1. Line item no. 41	2. DRD Title Status Reports for Mockup and System Data	3. Data type: <input type="checkbox"/> (1) Written approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request	4. Frequency See Remarks	5. As-of-date	6. 1 <sup>st</sup> subm. date See Remarks	7. Copies a. Type b. Number Per CO letter
	8. Distribution ( <i>Continue on a blank sheet if needed</i> ) Per Contracting Officer's letter.		9. Remarks Initial –Contract start + 90 days Frequency - Annual, Delivered at the beginning of the calendar year			
1. Line item no. 42	2. DRD Title Action Items	3. Data type: <input type="checkbox"/> (1) Written approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request	4. Frequency See Remarks	5. As-of-date	6. 1 <sup>st</sup> subm. date See Remarks	7. Copies a. Type b. Number Per CO letter
	8. Distribution ( <i>Continue on a blank sheet if needed</i> ) Per Contracting Officer's letter.		9. Remarks Initial – Plan: Contract start + 30 days; Reports: Contract start + 120 days Frequency – Plan: Contract start + 1 year. After that as required; Reports: Weekly, monthly and as requested.			
1. Line item no. 43	2. DRD Title IT System Security Plan	3. Data type: <input checked="" type="checkbox"/> (1) Written approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request	4. Frequency See Remarks	5. As-of-date	6. 1 <sup>st</sup> subm. date See Remarks	7. Copies a. Type b. Number Per CO letter
	8. Distribution ( <i>Continue on a blank sheet if needed</i> ) Per Contracting Officer's letter.		9. Remarks Initial: Contract award + 27 days Frequency - Review and update on a continual basis and after any significant changes to the IT System or contractor personnel point of contact (POC) information. Updated copies shall be submitted upon any significant changes or every three (3) years, whichever comes first.			
1. Line item no. 44	2. DRD Title Reprocurement Data Package	3. Data type: <input type="checkbox"/> (1) Written approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request	4. Frequency As req'd	5. As-of-date	6. 1 <sup>st</sup> subm. date At CO Direction	7. Copies a. Type b. Number Per CO letter
	8. Distribution ( <i>Continue on a blank sheet if needed</i> ) Per Contracting Officer's letter.		9. Remarks			

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# Attachment J-10

## Data Requirements Descriptions (DRD)

1. DRD Title  Contractor Work Breakdown Structure and Dictionary	2. Date of current version  11/17/2009	3. DRL Line Item No.  DRD-NSOC-01	RFP/Contract No.  NNJ09040809R
4. Use:  To organize the tasks to be accomplished in this contract in a service-oriented structure. The CWBS 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:  <input type="checkbox"/> Technical <input checked="" type="checkbox"/> Administrative <input type="checkbox"/> SR&QA
6. References:			7. Interrelationships:  SOW 2.1

8. Preparation Information:

- a. Data Type: 1
- b. Scope: The CWBS shall encompass all the services required to achieve all the requirements of this contract. The CWBS 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.
- c. Content: The CWBS shall graphically depict the CWBS tree. The dictionary shall contain a concise description of contract tasks to be performed and products to be delivered, subdivided by CWBS element. A CWBS element may represent an identifiable product, a set of data, a service, a task, or a budget function. The structure shall be at the RFP SOW level with additional levels as required by the Contractor. Lower levels of detail, which the Contractor uses for its own management purposes to validate information reported to NASA, shall be compatible with NASA requirements and be accessible by NASA. The relationship between the CWBS and the Contractor's internal organizations and processes shall also be provided.
- d. Format: The CWBS tree is to be in organization chart format and the associated CWBS narrative (CWBS dictionary) in text form, arranged as depicted by the CWBS tree. The CWBS tree and dictionary shall be provided in both electronic and hard copy form.
- e. Distribution: Per Contracting Officer's letter.
- f. Submission:
  - i. Initial: Due with proposal.
  - ii. Final: Contract award + 60 days.
  - iii. Approval: Contract start + 90 days.
  - iv. Frequency: Each CWBS update
- f. Maintenance: Revisions shall be incorporated by change page or complete reissue.



1. DRD Title  Management Plan	2. Date of current version  12/4/2009	3. DRL Line Item No.  DRD-NSOC-02	RFP/Contract No.  NNJ09040809R
4. Use:  To provide a comprehensive plan that integrates all aspects of the SOW to accomplish efficient and effective management.			5. DRD Category:  <input type="checkbox"/> Technical <input checked="" type="checkbox"/> Administrative <input type="checkbox"/> SR&QA
6. References:			7. Interrelationships:  SOW 2.0, 2.3

8. Preparation Information:

- a. Data Type: 1
- b. Scope: The Management Plan shall describe the basis for the Contractor's management approach, organization, and systems for accomplishing and managing all services and functions described in the SOW. It shall provide a comprehensive integration of all management systems of the prime, subcontractors, and major vendors. The systems shall include those specifically required to accomplish the Statement of Work, as well as those systems and procedures that are to be set in place by the Contractor.
- c. Content: At a minimum, the Contractor shall address the following elements:
  - i. Describe the organizational structure, including a chart depicting the organization. Describe each organizational element and its function.
  - ii. Describe the communication channels, lines of authority (including the line of succession if Contract Manager is unavailable), reporting relationships, and responsibilities of all organizational elements. Include in this discussion any subcontractors, team members, or joint venture partners or external customers, to illustrate their relationships within the structure or between the organizational elements and any other subcontractors, team members, or joint venture partners. Describe the reporting responsibilities of the Contract Manager to corporate management and the relationship between the Contract Manager and the prime's corporate management as well as the management of any subcontractors, team members, or joint venture partners.
  - iii. Describe plans and approaches that will be used for subcontractor administration.
  - iv. Describe plans and methods for communicating with NASA.
  - v. Describe plans and methods of communicating with external customers and how that information will be relayed back to NASA.
  - vi. Describe the management policies, procedures, and techniques the prime and any subcontractors, team members, or joint venture partners have to create a single face to the Government. Describe how the management policies, procedures, and techniques are monitored to ensure their effectiveness.
  - vii. Describe how you will ensure the Government will receive the services for which it is contracting by providing the method, level and frequency of internal surveillance. Describe the methods of identifying deficiencies and plans for correcting deficiencies.
  - viii. Describe any corporate monitoring, oversight, or assistance you will use to compliment performance by the NBL/SVMF contractor staff. Describe the corporate monitoring, oversight, or assistance (e.g., at the prime contractor level only or inclusive of any subcontractors, team members, or joint venture partners).
  - ix. Describe the relationships between the various Contractor provided plans, and the functional element relationships.
  - x. Describe the methods for establishing, tracking and adhering to schedules and budgets.
  - xi. Describe the process for attracting and retaining qualified personnel to meet required staffing levels.
  - xii. Describe the process for maintaining staffing flexibility to accommodate changes in requirements and fluctuations in workloads.
  - xiii. Describe how problem identification and resolution will be accomplished.

- d. Format: Contractor's electronic format is acceptable.
- e. Distribution: Per Contracting Officer's letter.
- f. Submission:
  - i. Initial: Due with proposal.
  - ii. Final: Contract start + 60 days.
  - iii. Approval: Contract start + 90 days.
  - iv. Frequency: As required.
- g. Maintenance: Revisions shall be incorporated by change page or complete reissue.

1. DRD Title  Configuration Management Plan	2. Date of current version  12/4/2009	3. DRL Line Item No.  DRD-NSOC-03	RFP/Contract No.  NNJ09040809R
4. Use:  To define and describe the Contractor's configuration management processes for hardware, software, and documentation.			5. DRD Category:  <input type="checkbox"/> Technical <input checked="" type="checkbox"/> Administrative <input type="checkbox"/> SR&QA
6. References: a. NPR 7120.5D, NASA Space Flight Program and Project Management Requirements b. NPR 7123.1A, NASA Systems Engineering Processes and Requirements c. ISO 10007, Quality Management Systems – Guidelines for Configuration Management d. JSC-63756, Mission Operations Directorate Software Management Plan			7. Interrelationships:  SOW 2.10, 2.16

8. Preparation Information:

- a. Data Type: 1
- b. Scope: The Configuration Management Plan defines and describes all Contractor configuration management processes for hardware, software, and documentation.
- c. Content: The Configuration Management (CM) Plan shall define and describe the processes and methodologies for performing configuration management of hardware, software and documentation. As a minimum, describe the following:
  - i. The criteria for selecting items that require the application of CM
  - ii. The processes used by the Contractor to perform configuration management in accordance with the SOW and applicable documents. Ensure that the following are addressed: controlling changes; tracking approved versions of hardware; software and documentation; managing varying states of maturity; coordinating dependent interfaces.
  - iii. The specific allocation of responsibilities, accountability, authority, and resources for performing Configuration Management. Include any variations that occur during the different lifecycle phases.
  - iv. The procedures for identifying and removing non-conforming products. (DRD-NSOC-23 defines the Non-conformance Record Template to be utilized by NSOC.)
  - v. Document support (e.g., word processing, document formatting) and configuration management for all NBL and SVMF documents (e.g., NASA documents on the DX Master list)..
  - vi. How documentation will be made available electronically to all JSC users, including a listing of all documentation, and how all documentation will be delivered to NASA, for use without restrictions
  - vii. How the quality records will be maintained
  - viii. How the contractor will ensure that only approved documentation is utilized to perform user operations in the facilities
  - ix. A description of the procedure for making changes to the Configuration Management Plan.
- d. Format: Contractor discretion.
- e. Distribution: Per Contracting Officer's letter.
- f. Submission:
  - i. Initial: Contract award + 15 days.
  - ii. Final: Contract award + 25 days.
  - iii. Approval: Contract award + 55 days
  - iv. Frequency: As required.

- g. Maintenance: Update as required due to configuration management process or procedure changes. Revisions shall be incorporated by change page or complete resubmit.

1. DRD Title  Contract Configuration Management Plan	2. Date of current version  11/17/2009	3. DRL Line Item No.  DRD-NSOC-04	RFP/Contract No.  NNJ09040809R
4. Use:  To describe the Contractor's method for accomplishing the configuration management of the contract.			5. DRD Category:  <input type="checkbox"/> Technical <input checked="" type="checkbox"/> Administrative <input type="checkbox"/> SR&QA
6. References:			7. Interrelationships:  SOW 2.16.4

8. Preparation Information:

- a. Data Type: 1
- b. Scope: The Contract Configuration Management Plan shall describe the Contractor's management approach and planned implementation methods for accomplishing the Configuration Management (CM) of the contract.
- c. Content: The Contract Configuration Management Plan shall describe the Contractor's CM organization, policies, procedures, implementation approach, and control systems that are to be used to ensure proper contract CM activities.
- d. Format: Contractor's electronic format is acceptable.
- e. Distribution: Per Contracting Officer's letter.
- f. Submission:
  - i. Initial: Contract award + 35 days.
  - ii. Final: Contract award + 60 days.
  - iii. Approval: Contract start + 30 days.
  - iv. Frequency: As required.
- g. Maintenance: Revisions shall be incorporated by change page or complete reissue.

1. DRD Title  Continuous Improvement Plan	2. Date of current version  11/17/2009	3. DRL Line Item No.  DRD-NSOC-05	RFP/Contract No.  NNJ09040809R
4. Use:  To provide a comprehensive plan for improving contract performance with the goals of working more safely, enhancing quality, ensuring user satisfaction, and reducing cost.			5. DRD Category:  <input checked="" type="checkbox"/> Technical <input type="checkbox"/> Administrative <input type="checkbox"/> SR&QA
6. References:			7. Interrelationships:  SOW 2.0

8. Preparation Information:

- a. Data Type: 1
- b. Scope: The Continuous Improvement Plan shall describe the Contractor's multi-year approach for improving technical performance, risk reduction and cost for all functions detailed in the SOW and include a detailed description of each planned improvement.
- c. Content: Describe the comprehensive approach to identifying candidates, vetting candidates, obtaining approval for the candidate and implementing the resulting improvement. Describe how the contractor monitors continuous improvements to ensure no adverse impacts to contract performance  
  
For each improvement listed, the Contractor shall, as a minimum, describe technical approach, risk reduction, schedule, investment cost by fiscal year for each WBS element (for each labor category and non-labor), and proposed savings for each WBS element. There shall be enough detail for the Government to adequately assess the practicality and payback for each suggested improvement.
- d. Format: Contractor's electronic format is acceptable.
- e. Distribution: Per Contracting Officer's letter.
- f. Submission:
  - i. Initial: Due with proposal.
  - ii. Final: Contract start + 30 days.
  - iii. Approval: Contract start + 120 days.
  - iv. Frequency: Annually, 30 days prior to the start of every contract year.
- g. Maintenance: Revisions shall be incorporated by change page or complete reissue.

1. DRD Title  External Customers Plan	2. Date of current version  1/21/2009	3. DRL Line Item No.  DRD-NSOC-06	RFP/Contract No.  NNJ09040809R
4. Use:  To provide a comprehensive plan for attracting and supporting external customers for the NBL and SVMF.			5. DRD Category:  <input type="checkbox"/> Technical <input checked="" type="checkbox"/> Administrative <input type="checkbox"/> SR&QA
6. References: NPD 1050.1 Authority to Enter into a SAA Space Act Agreement Guide			7. Interrelationships:  SOW 3.5

8. Preparation Information:

- a. Data Type: 1
- b. Scope: The External Customers Plan (ECP) describes the contractor's multi-year approach for attracting external customers for use of the facilities. After approval, the External Customers Plan will become part of the contract as Attachment J-04. Execution of External Customer agreements shall be in accordance with Clause H.17, Non-Government Use of NSOC Facilities.
- c. **Content:**  
The External Customers Plan shall describe the contractor's comprehensive plan for identifying, attracting, and retaining external customers to the NBL and SVMF, per the SOW.  
The plan shall demonstrate the contractor's approach and methods for generating cost savings to FOD that meets or exceeds the targets indicated for each fiscal year in table 1, below.

**Table 1: Cost Savings to FOD**

	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19
Total K\$ Standard of Excellence	\$1,043	\$1,305	\$3,312	\$3,381	\$5,125	\$3,274	\$3,353	\$3,435	\$3,508
Total K\$ Minimum Requirement	N/A	N/A	N/A	N/A	N/A	\$2,112	\$2,163	\$2,216	\$2,263

Notes:

The contractor's initial submission shall propose values for each and describe the method(s) used to calculate each of those values

The ECP shall describe all processes, data requirements and approval cycles for External Customers, for the following entry methods into the facility: customers found and contracted with by the contractor, customers found by the contractor and contracted with NASA, customers found and contracted with by NASA and customers found by NASA and contracted with the contractor. 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. Infrastructure Development:
  - a. NBL/SVMF Capabilities, Constraints, and Policies:
    - i. Identify and evaluate NBL/SVMF Facility 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 NBL/SVMF.
- iii. Provide a comprehensive process that reviews the potential customer's requirements against NBL/SVMF capabilities, constraints, and policies.
- iv. Describe plans to resolve issues between customer requirements and NBL/SVMF 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)

b. 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.

c. Costs:

- i. Describe your plan to assist NASA in establishing a price list for use of the NBL and SVMF. Identify all factors that you will consider in determining the costs (e.g., equipment maintenance and replacement costs).
- ii. Describe your approach for determining the cost savings to MOD for each External Customer agreement utilizing 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 your definition of a "completed" or "booked" External Customer agreement, including the point at which you would consider the event suitable for inclusion in the totals shown in Table 1. Also discuss your method of calculating the totals in Table 1, including when you would consider that a NASA-initiated External Customer event should be included.

3. Recruiting:

- i. Identifying Potential Customers: Describe plans for identifying potential customers, both initially and long-term.
- ii. Marketing the NBL/SVMF: Describe plans for marketing the NBL/SVMF to potential customers, and the estimated associated costs.

4. Integration Support

- a. Describe plans to support both NASA and the customer during agreement development and negotiations.
- b. 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. Note: When SAAs or ITAs are utilized, NASA will negotiate with the External Customers and enter into the SAA.)

5. Implementation

- i. Describe your 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.

6. Reports:

- a. The contractor shall submit Quarterly Reports summarizing their progress, as outlined in their External Customer's Plan, Attachment J-04.
  - b. Reports shall include, at a minimum:
    - i. Summaries of contacts made,
    - ii. Potential customers, and the associated:
      - 1. Amount of work expected,
      - 2. Anticipated activities,
      - 3. Timeframe/ Length of use,
      - 4. Level and type of support by the contractor
      - 5. Estimated support (including cost) of the contractor
      - 6. Facility equipment and infrastructure required,
      - 7. Additional details not otherwise addressed (e.g., operations, setup, teardown)
    - iii. Adherence to metrics set out in plan
    - iv. Report on progress towards targets in Table 1
7. Other relevant data.
- a. SOW Appendix C includes a performance standard for supporting external customers which sets the "*minimum requirement*". Propose a "*standard of excellence*" to replace the TBD shown.
  - b. Other relevant data identified by the contractor
- d. Format: Contractor's electronic format is acceptable for quarterly report. Utilize the format provided herein for the plan itself.
- e. Distribution: Per Contracting Officer's letter.
- f. Submission:
- i. Initial: Due with proposal.
  - ii. Final: Contract start + 40 days.
  - iii. Approval: Contract start + 135 days.
  - iv. Frequency: Update after approval of plan + 1 year; afterward as required.
- g. Maintenance: Revisions shall be incorporated by change page or complete reissue.

1. DRD Title  Risk Management Plan	2. Date of current version  11/17/2009	3. DRL Line Item No.  DRD-NSOC-07	RFP/Contract No.  NNJ09040809R
4. Use:  To describe the Contractor's implementation approach for performing and reporting risk management, in conformance with the processes that are defined by the Government.			5. DRD Category:  <input type="checkbox"/> Technical <input checked="" type="checkbox"/> Administrative <input type="checkbox"/> SR&QA
6. References: NPR 7120.5D, NASA Space Flight Program and Project Management Requirements NPR 8000.4, Risk Management Procedural Requirements			7. Interrelationships:  SOW 2.14

8. Preparation Information:

- a. Data Type: 1
- b. Scope: The Risk Management Plan documents the process that the Contractor will follow to manage risk throughout the duration of the contract and provide government insight to risk management. "Risk" refers to anything that can prevent a team from meeting the contract requirements. All forms of risk shall be managed. These include technical, programmatic, supportability, cost, and schedule risks.
- c. Content: The Risk Management Plan shall describe the Contractor's processes to provide management at all levels with 1) a disciplined system for early identification of technical uncertainties, 2) a disciplined assessment of current project status, and 3) key indicators of mission success. The plan shall describe the basis for taking action to control risk and for measuring the effectiveness of that action. As a minimum the plan shall discuss:
  - i. Risk identification – The process to determine and define all risks.
  - ii. Risk analysis – The process to convert risk data into decision-making information. This process should include estimating the probability, impact and time frame of the risks, eliminating duplicate risks (including grouping similar risks) and prioritizing risks according to consequences.
  - iii. Risk planning – The process to develop mitigation options and decide what to do with the risks.
  - iv. Risk tracking – The process to acquire, compile and report risk status data, including risk indicators and mitigation actions. Appropriate risk metrics shall be identified so that the Government can evaluate the quality of the risk management.
  - v. Risk control – The process covering decisions to re-plan mitigation, close risks, invoke contingency plans or continue to track risks. The plan shall define responsibilities, typical milestones/reviews, and describe the key risk control activities.
  - vi. Communications and documentation – This is the means by which the output of the processes is documented and communicated to all team members. It is present in all of the above processes.
  - vii. The plan shall also identify the information to be documented for each risk. For risks having both a high probability and high impact/severity, the plan shall require, as a minimum, the following:
    - (1) Description of the risk
    - (2) Primary consequence should the undesirable event occur
    - (3) Estimate of probability of occurrence and the fidelity of the estimate
    - (4) Significant cost impacts, given its occurrence
    - (5) Significant schedule impacts, given its occurrence
    - (6) Potential mitigation measure not already taken and the cost to implement them
    - (7) Characterization of the risk as acceptable or unacceptable with rationale.

- d. Format: Contractor's electronic format is acceptable.
- e. Distribution: Per Contracting Officer's letter.
- f. Submission:
  - i. Initial: Contract start + 15 days.
  - ii. Final: Contract start + 45 days.
  - iii. Approval: Contract start + 60 days.
  - iv. Frequency: As required.
- g. Maintenance: Revisions shall be incorporated by change page or complete reissue.

1. DRD Title  Fiscal Year (FY) Operating Plan and Planning, Programming, Budgeting, and Execution (PPBE)	2. Date of current version 12/4/2009	3. DRL Line Item No. DRD-NSOC-08	RFP/Contract No. NNJ09040809R
4. Use:  The Contractor shall provide a separate annual FY Operating Plan and PPBE addressing all of the services under this contract.			5. DRD Category:  <input type="checkbox"/> Technical <input checked="" type="checkbox"/> Administrative <input type="checkbox"/> SR&QA
6. References: NPR 7120.5D, NASA Space Flight Program and Project Management Requirements			7. Interrelationships:  SOW 2.1, 2.18

8. Preparation Information:

- a. Data Type: Op Plan – 1, PPBE – 2
- b. Scope: The FY Operating Plan and PPBE will include a detailed analysis of the content and cost for the future Government Fiscal Year(s). The PPBE will contain a multi-year forecast as specified by requesting letter.
- c. Content: The FY Operating Plan and PPBE shall include estimates of the resources required to perform the specified services of the contract. Estimates shall be provided by CWBS and shall include labor in EP and \$, material in \$., and total contract total price in \$. EP, labor hour, and \$ estimates shall also be provided by source of funding, such as SSP, ISS, Cx, etc. A plan summary shall be provided which compares the total resources estimated by funding source to specified funding marks, and to the negotiated contract value.  
  
The FY Operating Plan shall include estimates by month. Technical work content to be achieved within the plan shall be described by list of tasks to be performed under Baseline Projects. The Contractor shall provide and maintain a master integrated facility schedule which identifies all projects and internal and external project dependencies.  
  
The PPBE shall designate estimates by FY.
- d. Format: Electronic copy and hardcopy, as specified by NASA via TIRF. Electronic copy shall be provided in Microsoft Excel unless otherwise agreed-to with NASA.
- e. Distribution: Per Contracting Officer's letter.
- f. Submission:
  - i. Initial: FY Op Plan: Contract start + 30 days; PPBE: As required by TIRF.
  - ii. Final: FY Op Plan: Contract start + 50 days; PPBE: As required by TIRF.
  - iii. Approval: FY Op Plan: Contract start + 75 days; PPBE: N/A.
  - iv. Frequency: FY Op Plan: 60 days prior to the end of FY; PPBE: As required.
  - v. It is anticipated that full PPBE submittals will be required at least once per year, with smaller, less detailed submittals required an additional 1-2 times per year. The contractor will be provided as much notice as possible, but it should be recognized that short turnaround times might be required.
- g. Maintenance: N/A

1. DRD Title  Small Business Subcontracting Plan and Reports	2. Date of current version  11/17/2009	3. DRL Line Item No.  DRD-NSOC-09	RFP/Contract No.  NNJ09040809R
4. Use:  To describe the Contractor's planned approach to Small Business Subcontracting and their reporting against this plan.			5. DRD Category:  <input type="checkbox"/> Technical <input checked="" type="checkbox"/> Administrative <input type="checkbox"/> SR&QA
6. References: a. FAR 19.702, Statutory requirements b. FAR 52.219-8, Utilization of Small Business Concerns c. FAR 52.219-9, Small Business Subcontracting Plan d. NFS 1852.219-75, Small Business Subcontracting Reporting e. NFS 1852.219-76, NASA 8 Percent Goal			7. Interrelationships: SOW 2.3 RFP Sections H.8; H.9; Attachment J-01

8. Preparation Information:

- a. Data Type: Plan – 1, Report – 2
- b. Scope: The Small Business Subcontracting Plan shall be in compliance with FAR 52.219-9. The Small Business Subcontracting Reporting shall be in compliance with NFS 1852.219-75.
- c. Content: The Subcontracting plan must include the approach that the Contractor intends to use in meeting the subcontracting goals. Subcontractors whose bid is part of this proposal should be identified. For each subcontractor, the percentage of the proposal and any small or small business subcategory classification should be identified. For areas of potential future subcontracting, the Contractor should identify the area of work, the percentage of contract that this is expected to encompass, potential subcontractors and their small business or small business subcategory classification. Describe the management approach to subcontracting with small, small disadvantaged 8(a), Women-owned, HUBZoned, Veteran owned, and Service disabled veteran owned companies and HBCU/MIs.
- d. Format: Contractor format is acceptable for the plan; reporting shall be in compliance with NFS 1852.219-75.
- e. Distribution: Per Contracting Officer's letter.
- f. Submission:
  - i. Subcontracting Plan:
    - 1. Initial – Due with proposal.
    - 2. Approval – Prior to contract award.
    - 3. Frequency – Subcontracting Plan to be updated in accordance with FAR 19.702.
  - ii. Reports:
    - 1. All reports shall be submitted in accordance with FAR 52.219-9 and NFS 1852.219-75.
    - 2. In lieu of submitting a paper copy of the SF 294 and SF 295 Subcontracting Report for Individual Contracts. The contractor shall submit semi-annually and at contract completion to the NASA/JSC Contracting Officer electronically version of this data.
    - 3. 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.
    - 4. All contractors are required to register and file both types of subcontracting reports using the eSRS system. The website to register is [www.esrs.gov](http://www.esrs.gov).
- g. Maintenance: Revisions shall be incorporated by change page or complete reissue.

1. DRD Title  Phase-In Plan	2. Date of current version  11/17/2009	3. DRL Line Item No.  DRD-NSOC-10	RFP/Contract No.  NNJ09040809R
4. Use:  To describe the Contractor's planned approach to Small Business Subcontracting and their reporting against this plan.			5. DRD Category:  <input type="checkbox"/> Technical <input checked="" type="checkbox"/> Administrative <input type="checkbox"/> SR&QA
6. References:			7. Interrelationships:

8. Preparation Information:

- a. Data Type: 1
- b. Scope: The NSOC Phase-In Plan provides plans for the transfer of all anticipated on-going development and operations activities along with supporting logic and rationale.
- c. Content: This Phase-In Plan shall describe the overall plan for transition. At a minimum, it shall address:
  - i. Schedule with key milestones,
  - ii. Approach and rationale for implementing the plans, procedures, and processes required for performance of the contract, including property, personnel, facilities, and security,
  - iii. Metrics used to determine progress for contract transition,
  - iv. Property control transfer,
  - v. Property location moves for GFP in the following locations: N/A
  - vi. Software control transfer,
  - vii. Documentation control transfer,
  - viii. Facilities responsibility transfer,
  - ix. Incorporation of existing CR, DO, and all technical and administrative data (e.g., metrics data from previous years), Data packages (DRD-NSOC-41) that are not addressed in item "vii, documentation control transfer" and NBL and SVMF Databases (DRD-NSOC-37)
  - x. Mission assurance considerations,
  - xi. Security considerations,
  - xii. Risk mitigation strategy,
  - xiii. Configuration management considerations.
- d. Format: Contractor discretion, unless otherwise agreed upon between NASA and the contractor.
- e. Distribution: Per Contracting Officer's letter.
- f. Submission:
  - i. Initial: Due with proposal.
  - ii. Final: Contract award + 5 calendar days.
  - iii. Approval: Contract award + 10 calendar days.
- g. Maintenance: Revisions shall be incorporated by change page or complete reissue.



1. DRD Title  Government Property Management Plan	2. Date of current version  11/17/2009	3. DRL Line Item No.  DRD-NSOC-11	RFP/Contract No.  NNJ09040809R
4. Use:  To describe the method of administering Government property.			5. DRD Category:  <input type="checkbox"/> Technical <input checked="" type="checkbox"/> Administrative <input type="checkbox"/> SR&QA
6. References:  FAR 52.245-1			7. Interrelationships:  SOW 2.17.1

8. Preparation Information:

- a. Data Type: 1
- b. Scope: The Government Property Management plan defines the Contractor's use, maintenance, repair, protection, and preservation of Government property. It shall describe the Contractor's approach to receiving, handling, stocking, maintaining, protecting, and issuing Government property. The plan should include interaction and Departmental/Office responsibilities. The delegated Property Administrator will request detailed procedures after contract start
- c. Content: This plan shall consist of those procedures which constitute the Contractor's Property Management Manual and shall include at a minimum the following categories:
  - i. Property Management,
  - ii. Acquisition,
  - iii. Receiving,
  - iv. Identification,
  - v. Records,
  - vi. Movement,
  - vii. Storage,
  - viii. Physical Inventories,
  - ix. Reports,
  - x. Consumption,
  - xi. Utilization,
  - xii. Maintenance,
  - xiii. Subcontractor Control,
  - xiv. Disposition,
  - xv. Reconcile Contractor Records with Financial Records,
  - xvi. Center – Unique Considerations,
  - xvii. Contractor Closeout,
  - xviii. Facility.
- d. Format: Contractor's electronic format is acceptable.
- e. Distribution: Per Contracting Officer's letter.
- f. Submission:
  - i. Initial: Due with proposal.
  - ii. Final: Contract start + 30 days.
  - iii. Approval: Contract start + 120 days.
  - iv. Frequency: As required.
- g. Maintenance: Revisions shall be incorporated by change page or complete reissue.

1. DRD Title  Change Control Process and Plan	2. Date of current version  11/17/2009	3. DRL Line Item No.  DRD-NSOC-12	RFP/Contract No.  NNJ09040809R
4. Use:  This process plan shall describe the contractor's change control process for development, modifications, and sustaining changes to the NBL and SVMF facilities and systems covered in the SOW.			5. DRD Category:  <input type="checkbox"/> Technical <input checked="" type="checkbox"/> Administrative <input type="checkbox"/> SR&QA
6. References: a. DX-WI-006, DX Change Request Process b. JSC-63756, Mission Operations Directorate Software Management Plan			7. Interrelationships:  SOW 2.16.2

8. Preparation Information:

- a. Data Type: 1
- b. Scope: The NBL and SVMF will utilize the NASA change control process, described in DX-WI-006, for NSOC. The Change Control Process Plan (CCPP) shall describe the contractor's internal change control processes and how those processes interface with DX-WI-006.
- c. Content: The contractor shall describe its internal change control processes for both Change Requests (CRs) and Delivery Orders. As a minimum, this plan shall address and describe these areas:
  - i. Roles, responsibilities and dependencies (e.g., product deliveries). Address the NSOC contractor, NASA, the change originator and other organizations involved in the change.
  - ii. Processes for change development, including support of requirements development and definition, NASA and contractor screening, impact assessment, making recommendations related to the change, obtaining NASA and contractor control board review and approval.
  - iii. Providing quality assurance support and preventing organizational conflicts of interest (OCI) throughout the change development and implementation process
  - iv. Interrelationships between the change control process and other NSOC processes (e.g., discrepancy reporting/management)
  - v. Processes and methodologies for cost and schedule estimating, including how the contractor will ensure accuracy in these critical areas.
  - vi. Process for controlling cost and schedule during change implementation. Address management of requirements updates and resulting impacts.
  - vii. Interfacing contractor change processes with NASA's existing change control process (DX-WI-006)
  - viii. Providing change approval status and change implementation status to NASA-authorized personnel; e.g., the change originator.
  - ix. Describe all differences between processes and methods for IDIQ DOs versus baseline change requests
  - x. Deliverables; e.g., change control database and metric reports.
- d. Format: Hardcopy and electronic format; JSC web domain accessible.
- e. Distribution: Per Contracting Officer's letter.
- f. Submission:
  - i. Initial: Due with proposal.
  - ii. Final: Contract award + 15 days.
  - iii. Approval: Contract award + 45 days.
  - iv. Frequency: As required.
- g. Maintenance: Revisions shall be incorporated by change page or complete reissue.

1. DRD Title  Deliverable Data and Software	2. Date of current version  6/3/10	3. DRL Line Item No.  DRD-NSOC-13	RFP/Contract No.  NNJ10HD35C
4. Use: Provide content and format requirements for delivery to NASA of data items, computer databases and documentation developed to support the use of data items. Also addresses delivery and/or licensing of non-commercial computer software, and non-commercial computer software documentation.			5. DRD Category:  <input type="checkbox"/> Technical <input checked="" type="checkbox"/> Administrative <input type="checkbox"/> SR&QA
6. References:  Contract Clauses H.18 and H.19			7. Interrelationships:

8. Preparation Information:

- a. Data Type: 2
- b. Scope: Data items, computer databases and documentation developed to support the use of data items shall be submitted in accordance with this DRD. Non-commercial computer software and non-commercial computer software documentation shall be delivered or licensed for use in accordance with this DRD.
- c. Content:
  1. The Contractor shall deliver to the Government the following table of non-commercial computer software, non-commercial computer software documentation and computer databases, wherein said non-commercial computer software, computer software documentation, and computer databases are used in performance of this contract:

Functional Areas of Contract Performance	Full name & version number of Non-Commercial Software; Non-Commercial Computer Software Documentation; or Computer Database (Offeror to fill-in)	Functional description of Non-Commercial Software Non-Commercial Computer Software Documentation; or Computer Database (Offeror to fill-in)	Item's Origin (Offeror to fill-in)
Systems used to view, modify or create configuration-controlled data (e.g., mockup or system drawings, technical or operational processes and procedures, change requests, delivery orders)			
Systems used to view, modify or create records (e.g., inventory, maintenance, inspections, training, parts tracking)			
Systems used to view, modify, create or monitor mockup and system discrepancies			
Systems used to view, modify, create or monitor Safety-related data, Safety processes, Test Readiness Reviews and Safety Reviews (e.g., hazard reports, formal approvals, audits)			
Systems used to view, modify, create, assign or monitor action items			
Systems used to view, analyze or monitor management information (e.g., operational and project costs, project schedules, NSOC performance metrics)			
Systems used to deliver NSOC-provided training (e.g., training lessons/lectures, computer-based training classes, required examinations)			

2. The contractor shall deliver to the Government the following data and all documentation developed to support the use of this data wherein said data and documentation are developed in performance of the contract:
  - i. Mockup Drawings
  - ii. System Drawings
  - iii. Technical and operational processes
  - iv. Technical and operational procedures
  - v. Change Requests (CRs)
  - vi. Delivery Orders (DOs)
  - vii. Inventory records
  - viii. Maintenance records
  - ix. Inspection records
  - x. Training records
  - xi. Parts tracking records
  - xii. System discrepancy reports (DRs) and related records (e.g., records describing the results of DR investigations and records supporting final DR disposition/resolution decisions)
  - xiii. Mockup discrepancy reports and related records (e.g., records describing the results of DR investigations and records supporting final DR disposition/resolution decisions)
  - xiv. Test Readiness Review records
  - xv. Safety Review records
  - xvi. Audit records
  - xvii. Hazard reports
  - xviii. Action item reports and related records (e.g., records describing the results of action item investigations and records supporting final action item disposition/resolution decisions)
  - xix. Operational cost reports and records
  - xx. Project cost reports and records
  - xxi. Project Plans
  - xxii. Performance metric reports and records
  - xxiii. Training lessons and briefings
  - xxiv. Training examinations
  - xxv. Computer-based training classes
3. Data: Upon direction of the Contracting Officer, the Contractor shall deliver to the Government the data items, documentation developed to support the use of data items, non-commercial computer software, computer databases and non-commercial computer software documentation, as identified in parts (c)(1) and (c)(2) of this DRD.
4. Non-commercial software for which no restricted rights are claimed and non-commercial software documentation for which no limited rights are claimed: Upon direction by the Contracting Officer, the Contractor shall deliver to the Government such non-commercial computer software and non-commercial computer software documentation identified in part (c)(1) of this DRD.
5. Non-commercial software for which restricted rights are claimed and non-commercial software documentation for which limited rights are claimed: Upon direction of the Contracting Officer, the Contractor shall either:
  - i. Deliver to the Government such non-commercial computer software, non-commercial computer software documentation, or both identified in part (c)(1) of this DRD.OR
  - ii. License to the Government for use of such non-commercial computer software and deliver to the Government such non-commercial computer software documentation identified in part (c)(1) of

this DRD, effective during contract performance and up to a period of 1 year after acceptance of all items to be delivered under this contract.

- d. Format: All submissions shall be in electronic format compatible with ODIN desktop standard applications or other ISS Program standard tools. Organizational format of the supporting documentation shall be the Contractor's format.
- e. Distribution: Per Contracting Officer's letter
- f. Submission:

Part (c)(1):

- iv. Initial: Contract Start + 45 Calendar Days
- v. Final: N/A
- vi. Approval: N/A
- vii. Frequency: Annual

Parts (c)(2), (c)(3), (c)(4) and (c)(5):

- i. Initial: N/A
- ii. Final: N/A
- iii. Approval: N/A
- iv. Frequency: Per Contracting Officer's direction (NOTE: The Government estimates this will be required one time, near the end of the contract.)

- h. Maintenance: All data items, documentation developed to support the use of data items, non-commercial computer software, computer databases and non-commercial computer software documentation shall be: 1) maintained electronically; and, 2) updated as necessary to perform the functions for which they were developed.

1. DRD Title  Maintenance Plan	2. Date of current version  11/17/2009	3. DRL Line Item No.  DRD-NSOC-14	RFP/Contract No.  NNJ09040809R
4. Use:  This plan will document the Contractor's approach to for maintenance of NBL and SVMF mockup and systems.			5. DRD Category:  <input checked="" type="checkbox"/> Technical <input type="checkbox"/> Administrative <input type="checkbox"/> SR&QA
6. References:			7. Interrelationships:  SOW 2.18, 3.2, 4.2

8. Preparation Information:

a. Data Type: 1

- b. Scope: The Maintenance Plan shall encompass all mockups, systems and equipment at the NBL and SVMF. The plan describes the process for preventative maintenance, return to print maintenance, equipment replacement and returning the mockup or system to service. The plan also provides the scheduling process to conduct all activities with in the plan to minimize impacts to events in the facilities.

c. Content:

- i. Roles and responsibilities: The contractor shall provide a description of all resources (labor and non-labor) to complete the activities stated in the plan. The contractor shall provide the organizational structure that will perform the maintenance along with a narrative of their responsibilities.

ii. Preventative maintenance:

Part (1): The contractor shall describe their approach for conducting preventative maintenance, providing associated rationale.

Part (2): The contractor shall provide a list of existing, modified or new processes, procedures and documents that have been approved by NASA and will be used to conduct preventative maintenance.

iii. Return to print maintenance:

Part (1): The contractor shall describe the approach that will be used to conduct return to print maintenance, providing associated rationale.

Part (2): The contractor shall provide a list of existing, modified or new processes, procedures and documents that have been approved by NASA and will be used for return to print maintenance.

iv. Equipment replacement and critical spares

Part (1): The contractor shall describe their approach for equipment replacement maintenance, providing associated rationale. The contractor shall include a cost benefit analysis approach for determining replacement feasibility of general shop equipment (e.g., drill press, lathe, mill).

Part (2): The contractor shall provide a list of all equipment in mockups or systems that use consumables, replacement components or are themselves required to be replaced during normal operations. This list shall be based on vendor recommendations, failure trends and performance data. The list shall provide the frequency of replacement, estimated cost for time and materials, and if it is not a Commercial Off the Shelf (COTS) item, provide the lead time to procure the item. The contractor shall provide a critical spares list. The contractor shall start with the existing critical spares list and provide justification if they plan to add or remove items from the list.

The contractor shall provide a list of all operating systems and software used in the facilities.

Within the list the contractor shall provide the schedule for the planned replacement or upgrade of

operating systems or software and the estimate for time and materials for replacement per line item.

v. Acceptance and return to service

Part (1): The contractor shall describe their approach for verification of completed maintenance and equipment return to service, providing associated rationale.

Part (2): The contractor shall provide a list of existing, modified or new processes, procedures and documents that have been approved by NASA and will be used for maintenance verification and equipment return to service.

vi. Schedule

Part (1): The contractor shall describe their approach for an annual schedule of mockup and system maintenance, providing associated rationale. The approach shall describe the process for ensuring that scheduled mockup maintenance tasks will not interfere with on-going operations, or with the long range operational schedule. If a conflict is identified, and the maintenance is deemed to be critical, then the plan shall describe the process for communicating that conflict to the users and for resolving any issues.

Part (2): The contractor shall provide a NASA approved procedure for scheduling mockup and system maintenance.

d. Format: Contractor discretion, unless otherwise agreed upon between NASA and the contractor.

e. Distribution: Per Contracting Officer's Letter.

f. Submission:

i. Initial: Due with proposal; all sections labeled as Part (2) not required with proposal.

ii. Final: Contract award + 35 calendar days

iii. Approval: Contract award + 55 calendar days

iv. Frequency: As required

g. Maintenance: Revisions shall be incorporated by change paper or complete reissue.



1. DRD Title  Reports Required for Logistics Operations	2. Date of current version  11/17/2009	3. DRL Line Item No.  DRD-NSOC-15	RFP/Contract No.  NNJ09040809R
4. Use:  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 forward to NASA HQS.			5. DRD Category:  <input type="checkbox"/> Technical <input checked="" type="checkbox"/> Administrative <input type="checkbox"/> SR&QA
6. References: a. NHB 4100 (Current Version) b. JSCM-5151 (Current Version)			7. Interrelationships:  SOW 2.17.1

8. Preparation Information:

- a. Data Type: 2
- b. Scope: The following reports are required to be prepared when on-site storage of material exceeds \$20,000 for stores or standby stock, or \$75,000 for program stock in one location.
- c. Content:

Data Input for NASA Form 1324, Semi-annual Report of Personal Property Management Operations:

Material Inventory Status;  
Material Inventory Activity;  
Material Acquisition Activity;  
Material Receiving Activity;  
Logistics Personnel Resources Report

Data Input for NASA FMD 1489, Semi-annual Analysis of Fixed Inventory Assets:

Starting Price;  
Price of Receipts;  
Price of Issues;  
Ending Price

NOTE: This will be reported by each Object Class Code stocked in the storeroom. Separate reports are required for Stores, Program, and Standby stock. (See the JSC Stores Stock Catalog prefaces for a detailed explanation of these codes.

- d. Format: Forms for Data Input are available through JFS/Contract Property Management Branch.
- e. Distribution: JF5/JSC Property Administrator.
- f. Submission:
  - i. Initial: N/A
  - ii. Final: N/A
  - iii. Approval: N/A
  - iv. Frequency: Semi-Annually by 3/25 and 9/25
- g. Maintenance: Use semi-annual line item data elements as of 3/15 and 9/15 of each year.

1. DRD Title  Quality Plan and Reports	2. Date of current version  11/17/2009	3. DRL Line Item No.  DRD-NSOC-16	RFP/Contract No.  NNJ09040809R
4. Use:  The Quality Plan is used to document the specific details of the contractor's Quality Management System (QMS) related to this contact.			5. DRD Category:  <input type="checkbox"/> Technical <input type="checkbox"/> Administrative <input checked="" type="checkbox"/> SR&QA
6. References: c. ANSI/ISO/ASQC – 2008			7. Interrelationships:  SOW 2.13

8. Preparation Information:

- a. Data Type: 2
- b. Scope: A contract specific Quality Plan shall be prepared which identifies activities performed both on-site and off-site of JSC to ensure the quality of products and services.
- c. Content: The quality plan shall address each element of the ANSI/ISO/ASQC – 2008 standard demonstrating the contractors understanding, implementation, methods, procedures, and controls required to fulfill the contract requirements.
- d. Format: Quality Plan format shall match the elements of the ANSI/ISO/ASQC – 2008 standard.
- e. Distribution: JF5/JSC Property Administrator.
- f. Submission: Per Contracting Officer's letter.
  - i. Initial: Due with proposal.
  - ii. Final: Contract start + 30 days.
  - iii. Approval: Contract start + 90 days.
  - iv. Frequency: Annually.
- g. Maintenance: Revisions shall be incorporated by change page or complete reissue.

1. DRD Title  Safety and Health Plan	2. Date of current version  04/2008	3. DRL Line Item No.  DRD-NSOC-17	RFP/Contract No.  NNJ09040809R
4. Use:  Establishes Safety, Health, and Environmental Compliance Plan for Contractors providing support to JSC organizations  ***The Office of Primary Responsibility for this DRD is the JSC Safety and Test Operations Division			5. DRD Category:  <input type="checkbox"/> Technical <input type="checkbox"/> Administrative <input checked="" type="checkbox"/> SR&QA
6. References: a. OSHA CSP 03-01-003, Voluntary Protection Program (VPP): Policies and Procedures Manual b. JSC 17773, Instructions for Preparation of Hazard Analysis for JSC Ground Operations c. JPR 1700.1 JSC Safety and Health Handbook			7. Interrelationships: Safety and Health Program Self Evaluation SOW 2.11

8. Preparation Information:

- a. Data Type: 1
- b. Scope: Describe the Contractor's program to protect the safety and health of employees and comply with applicable laws and regulations.
- c. Content:

**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 your 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 (DART).
- 1.3 Management Leadership. Describe management's procedures for implementing its sustaining commitment to safety and 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 will 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 maintained by letter to the JSC Safety and Test Operations Division, mail code NS2, with copies to the Contracting Officer and the Contracting Officers Technical Representative. 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 your approach to safety and health program evaluation. The program evaluation consists of:
  - 1.8.1 [RESERVED.]
  - 1.8.2 A written self-evaluation report to be delivered once per year. The self evaluation shall be provided for the Contractor performance evaluation. The self-evaluation shall follow 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 will acknowledge the following as standing requests of the Government and to be handled as described below.

- 1.9.1 Roster of Terminated Employees. Identify personnel terminated by the contractor. Send to the JSC Occupational Health Officer, 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:
- Date of report, Contractor identity, and Contract number.
  - For each person listed, provide name, social security number, and date of termination.
  - 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. 1 copy of each MSDS will be sent upon receipt of the material for use on NASA property to the JSC Central MSDS Repository, maintained by the JSC Occupational Medicine Occupational Health contractor, 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 an inventory report of all hazardous materials it has located on Government property quarterly, 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", as revised. The call for this inventory and instructions for delivery will be issued by the JSC Occupational Medicine Occupational Health contractor, mail code SD33. This information shall use the format used by JSC for chemical inventory compilation to provide the following:
- The identity of the material (product number, chemical, manufacturer, and NSN as available).
  - The location of the material by building, room and area/cabinet number.
  - 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).
  - Peak quantity stored.
  - 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 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 will 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", as revised. 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 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 will be implemented at the direction of the NASA Contracting Officer's Technical Representative (**COTR**) 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 that 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 your 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 will 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 your 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 Occupational Medicine Occupational Health contractor 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 will 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" engineering 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 - May address facilities, systems/subsystems, operations, processes, materials (including waste), and specific tasks or jobs. Analyses and report formats will be in accordance with JSC 17773, "Preparing of Hazard Analyses for JSC Ground Operations."
  - 2.3.4 The Contractors safety plan will 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 contractor will

discuss its approach to notify NASA and other parties external to the contract work of its identified hazards and subsequent analyses and controls.

2.4 Inspections. Includes assignments, procedures, and frequency for regular inspection and evaluation of work areas for hazards and accountability for implementation of corrective measures. The Contractor will 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 will be documented in safety program evaluations or the monthly Accident/Incident Summary reports. Inspections will identify:

- Discrepancies between observed conditions and current requirements, and,
- 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).

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 - Identification of methods to encourage employee reports of hazardous conditions (e.g., close calls) and analyze/abate hazards. The Contractor will 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 Investigation – identification of methods to assure the reporting and investigation of mishaps including corrective actions implemented to prevent recurrence. The Contractor will describe the methods to be used to report and investigate mishaps on NASA property and on Contractor or third party property. The Contractor will describe its procedures for implementing immediate notification of NASA using the call tree in 2.7.1.a below. The use of the quick incident reports found at the lower center of 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 Contractor. The contingency plan will emphasize timely notification of NASA; preliminary and formal investigation procedures; exercise of jurisdiction over a mishap investigation involving NASA and other contractor personnel; 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 Contractor will discuss its procedures for immediate notification requirements for fires, hazardous materials releases, and other emergencies. The Contractor will include appropriate details to address the following:

Note: the NASA Form 1627 is not attached since it is a three part carbonless form not conducive to reproduction. This form is NOT available from JSC or NASA forms management; it can be obtained from the following link: <http://jschandbook.jsc.nasa.gov/>.

- The Contractor will include a mishap contingency plan as part of the Safety and Health Plan which meets the requirements of NPR 8621.1B, "NASA Procedural Requirement for Mishap and Close Call Reporting, Investigating, and Recordkeeping", and JPR 1700.1, **\*\*JSC Safety and Health Handbook\*\***. The plan will identify the method of immediately notifying NASA in the advent of a type A or B mishap or C property damage mishap and close call with equivalent potential so NASA may take custody of the mishap scene and initiate its investigation as soon as it is safe following the mishap. The Contractor will immediately contact the JSC Safety and Test Operations Division at 281-483-1935 for guidance when a Type A or B mishap or Type C property damage



mishap occurs in the course of performing work on a NASA Contract in whole or in part. The contingency plan will clearly identify the Government investigation as taking precedence over any contractor investigation.

- For Type C injuries and all lower level mishaps, the Contractor will perform its own investigation and submit a report to NASA in accordance with the requirements of NPR 8621.1. The Contractor will ensure that NASA is promptly notified of any Type D mishap so that NASA provides a civil servant to oversee the investigation in an ex officio capacity prior to start of any formal investigation. All initial reports and selected follow up reporting will be accomplished using IRIS.
- When a NASA investigation is required, witnesses will 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 will deliver to NASA mishap reports which shall include the data specified in NPR 8621.1 for the level of mishap. NASA approval and endorsements will be required as specified in NPR 8621.1 and included in the approved Safety and Health Plan.

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 will discuss method of providing data as follows.

- 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 10<sup>th</sup> days of the month following each month reported. Report to be delivered to the JSC S & MA Directorate through the Safety and Test Operations Division, mail code NS2, by fax to 281-244-0426 or by attaching to an e-mail and transmitting to JSC-Safety-Report-Submittals@mail.nasa.gov.
- Log of Occupational Injuries/Illnesses
  - For each establishment on and off NASA property that performs work on this Contract, the Contractor shall deliver, to the Government, 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.
  - Data shall be compiled and reported by calendar year and provided to the Government 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. In the multiple employer environment of the Center, it is required that hazards including discrepancies and corrective actions be collected in a Center wide information system Hazard Abatement Tracking System (HATS) for risk management purposes. Describe your approach to implementing this requirement.

3.2 Appropriate Controls. Discuss approach to consideration and selection of controls. Discuss use of hazard reduction precedence sequence (see JPR 1700.1). Discuss approach to identifying and

accepting any residual risk. Discuss implementation of controls including verifying effectiveness. Discuss scope of coverage (hazardous chemicals, equipment, energies, etc.). Discuss need for coordination with safety, health, and emergency authorities at NASA.

- 3.3 Hazardous Operations and Processes. Establish methods for notification of 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. 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 will be provided to JSC as part of the plan for review and approval. JSC and the Contractor will decide jointly which operations and processes are to be considered hazardous, with JSC as the final authority. Before hazardous operations or processes commence, the Contractor will develop a schedule to develop written procedures with particular emphasis on identifying the job safety steps required. NASA will have access on request to any Contractor data necessary to verify implementation. For all identified operations or processes that may have safety or health implications outside Contract operations, the Contractor shall identify such circumstances to the JSC Safety and Test Operations Division and 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 the relevant hazardous situations and proper controls are identified in documentation such as inspection procedures, test procedures, etc., and other related information. Describe 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 will 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. Identify facilities, operations and/or tasks where hazardous operations permits will be 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. Set forth method by which compliance is assured with JSC Asbestos Control Program as established in JPR 1700.1, as revised.
- 3.7 Operations Involving Exposures to Toxic or Unhealthful Materials. Such operations must be evaluated by the JSC Occupational Health Office 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 the Contractor's responsibilities for maintaining facilities baseline documentation in accordance with JSC requirements. The Contractor will 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 NASA Alerts Discuss methods and provide reports to promote awareness in the NASA community (such as alerts, safety flashes, etc.) when maintenance reveals design or operational concerns in facilities and equipment (and related processes where applicable). Preventive maintenance shall be discussed in Maintenance Plan (DRD-NSOC-14).
- 3.11 Medical (Occupational Healthcare) Program. Discuss the Contractor's 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. Discuss your system for correcting and tracking safety, health, and environmental hazards with particular emphasis on integration with JSC's Hazard Abatement Process (found on line @ <http://www.srqa.jsc.nasa.gov/HATS/>). (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. Discuss your approach to communicate unsafe conditions and approved countermeasures to your employees. Discuss your 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 how you will approach interim and final abatement of hazards. Describe how you will provide data to the JSC 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 your approach to posting such plans using JSC Form 1240, "JSC Notice of Safety or Health and Action Plan", or equivalent. Discuss compatibility of your system with JSC's role of facility managers in abatement planning, implementation, and verification.
- 3.13 Disciplinary System. Describe your system for ensuring safety and health discipline in your personnel (including subcontractors). Describe your approach to modifying personnel behaviors when personnel are exhibiting discrepant safety and health performance.
- 3.14 Emergency Preparedness. Discuss 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 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.
- 3.15 Auditing. Discuss approach to performing audits to verify that the NBL, SVMF and users are in compliance with all hazard controls and risk mitigations. Discuss the necessary auditing frequency and the statistically correct sample size necessary to generate reliable results. Provide rationale for approach and selection of frequency and sample size.

#### **4. SAFETY AND HEALTH TRAINING**

- 4.1 Describe the Contractor's 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 Describe 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 Describe approach to training personnel in the proper use and care of personal protective equipment (PPE).
- 4.4 Discuss tailoring of training towards specific audiences (management, supervisors, and employees) and topics (safety orientation for new hires, specific training for certain tasks or operations).

- 4.5 Discuss 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 Address utilization of JSC safety and health training resources (such as asbestos worker training/certification, hazard communication, confined space entry, lockout/tagout, etc.) as appropriate with particular emphasis on programs designed for the multiple employer work environment on NASA property. If the Contractor wishes to train their personnel in any regulatory mandated training, an agreement will be secured with JSC Occupational Safety Branch and Occupational Health and Test Operations Division and the JSC Occupational Health Officer support office prior to beginning training. The agreement will ensure that safety and health training resources available from NASA are utilized where appropriate.
  - 4.7 Discuss approach to making all training materials and training records available to NASA, and other Federal, state, and local agencies for their review upon request.
- d. 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: JSC Occupational Health Officer: and the NASA Contracting Officer. Other signatures may be required at the discretion of the Government. Once approved by NASA, signatures will be collected and the plan placed on the contract.
  2. Table of Contents. See 8.c. Content above.
  3. Body of plan - as required. Contractor's format is acceptable but should be aligned with the elements of the Content above.
  4. When preparing its plan, the Offeror/Contractor is expected to review all the items above and tailor its plan accordingly. The plan will 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.
- e. Distribution: After the plan is approved by NASA, the CO will retain the plan in the Contract file. The Contractor will send additional copies to each of the following:
- i. Contracting Officer (1 hard copy, 1 electronic copy)
  - ii. NS/Safety and Test Operations Division (2 hard copies, 1 electronic copy)
  - iii. JSC Occupational Health Officer (1 hard copy)
  - iv. JSC Environmental Services Office (1 hard copy)
  - v. JSC Emergency Preparedness Office (1 hard copy)
  - vi. JA Safety Manager (1 hard copy, 1 electronic copy)
- f. Submission: Per Contracting Officer's letter.
- i. Initial: Due with proposal.
  - ii. Final: Contract start + 60 days.
  - iii. Approval: Contract start + 90 days.
  - iv. Frequency: Annually or as directed by the CO
- g. Maintenance:

**Subsequent Revisions to the Plan:** Review the plan annually or as directed by the CO. The plan shall be updated to meet the latest OSHA, JSC, and VPP requirements. Provide a copy of the updated plan with the changes highlighted to the distribution list above 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.

**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.

1. DRD Title  Safety and Health Program Self Evaluation	2. Date of current version  10/2003	3. DRL Line Item No.  DRD-NSOC-18	RFP/Contract No.  NNJ09040809R
4. Use:  Self evaluation of Contractor's safety and health program performance.			5. DRD Category:  <input type="checkbox"/> Technical <input type="checkbox"/> Administrative <input checked="" type="checkbox"/> SR&QA
6. References: d. JPR 1700.1, JSC Safety and Health Handbook			7. Interrelationships: DRD-NSOC-17, Safety and Health Plan SOW 2.11

8. Preparation Information:

- a. Data Type: 2
- b. Scope: The Contractor shall conduct an annual self-evaluation of its safety and health program as required by its safety and health plan.
- c. Content:
  - i. 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.
  - ii. Safety and health concerns and resolutions relating to JSC operations, which may have been identified during the report period.
  - iii. Unresolved safety and health concerns relating to JSC operations which the Contractor feels merit attention of JSC safety and health management.
  - iv. The goals and objectives of the Contractor safety and health program for the next report period.
  - v. An analysis of the Contractor's performance, at JSC-administered establishments, in each of the 32 Voluntary Protection Program sub-elements as found in the Federal Register of July 24, 2000 (available at the following link): [http://www.osha-slc.gov/FedReg\\_osha\\_data/FED20000724A.html](http://www.osha-slc.gov/FedReg_osha_data/FED20000724A.html)
  - vi. Action plans shall be attached for identified problem areas. Action plans shall include schedule for periodic progress reports to the Government. Frequency of status reports shall to be agreed to by the Government and the Contractor for each problem area
- d. Format: As specified in OSHA TED 8.1, "Revised Voluntary Protection Programs (VPP) Policies and Procedures Manual", Appendix H (Program Evaluation Report), Attachment 2 (VPP Onsite Evaluation Format for Safety and Health Programs) for a STAR work site which is found at the following link: [http://www.osha-slc.gov/OshDoc/Directive\\_data/TED\\_8\\_1A.html](http://www.osha-slc.gov/OshDoc/Directive_data/TED_8_1A.html). Also, 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.
- e. Distribution: Per Contracting Officer's letter.
- f. Submission:
  - i. Initial: N/A
  - ii. Final: N/A
  - iii. Approval: N/A
  - iv. Frequency: September 30 of each year.
- g. Maintenance: N/A

1. DRD Title  Monthly Safety and Health Metrics	2. Date of current version  04/2008	3. DRL Line Item No.  DRD-NSOC-19	RFP/Contract No.  NNJ09040809R
4. Use:  Establishes selected Safety and Health Program metrics  ***The Office of Primary Responsibility for this DRD is the JSC Safety, Reliability, and Quality Assurance Office			5. DRD Category:  <input type="checkbox"/> Technical <input type="checkbox"/> Administrative <input checked="" type="checkbox"/> SR&QA
6. References: e. JPR 1700.1, JSC Safety and Health Handbook			7. Interrelationships:  SOW 2.11

8. Preparation Information:

a. Data Type: 2

b. Scope: The scope of the information required is limited to the JSC-administered establishments of Houston Texas at NASA Parkway, Sonny Carter Training Facility, and Ellington Field.

c. Content:

i. Management Commitment and Employee Involvement.

Date of Management Safety Committee Meeting	Type/Title of Meeting	Number Attending					
		Managers		Supervisors		Non-Supervisors	
		Current	To Date	Current	To Date	Current	To Date

Include electronic copies of minutes or representative information.

Date of Employee Safety Committee Meeting	Type/Title of Meeting	Number Attending					
		Employees		Managers/ Supervisors			
		Current	To Date	Current		To Date	

Include electronic copies of minutes or representative information.

ii. Worksite Analysis. Refer to JPR 1700.1 for definitions of terms.

Division	No. of Hazard Analyses				No. of Job Safety Analyses				No. of Routine Inspections			
	Required		Performed		Required		Performed		Required		Performed	
	Current	To Date	Current	To Date	Current	To Date	Current	To Date	Current	To Date	Current	To Date
Total												

- iii. Hazard Prevention and Control - hazards below were found during routine and special inspections, close calls, mishap investigations, etc., and require correction.

No. of Hazards found			No. of Hazards closed < 30 days			No. of Hazards open < 30 days	No. of Hazards open > 30 days			No. of Hazards closed >30 days			No. of JF1240s in place
Prior	Current	To Date	Prior	Current	To Date		Prior	Current	To Date	Prior	Current	To Date	

Attach copies (electronic ok if sent by e-mail) of JF 1240's (or equivalent) including monthly updates. Mark JF 1240's where abatement has been completed as closed.

- iv. Safety and Health Training - List courses specific to loss control initiatives (such as slips/trips falls, material handling; etc.) Report other training as "Generic safety training not otherwise specified" (examples include Hazard Communication, Confined Space entry, HAZWOPER, system safety, job safety analysis, etc.). Do not include job proficiency course work where safety is an issue (such as radiography, welding, painting, etc.).

Course Title	No. to be Trained	No. Trained	On Schedule

- d. Format: Electronic to Occupational Safety Branch, Occupational Health Officer; hard copy to COTR. Send as Excel spreadsheet or in tables compatible with MS Word.
- e. Distribution: Per Contracting Officer's letter.
- f. Submission:
- i. Initial: Contract start + 30 days.
  - ii. Final: At contract end.
  - iii. Approval: N/A
  - iv. Frequency: Monthly by 10<sup>th</sup> of month following month being reported.
- g. Maintenance: N/A



1. DRD Title  System Safety Program Plan	2. Date of current version  12/4/2009	3. DRL Line Item No.  DRD-NSOC-20	RFP/Contract No.  NNJ09040809R
4. Use:  Establishes system safety tasks and activities to identify, evaluate, and eliminate or control hazards.			5. DRD Category:  <input type="checkbox"/> Technical <input type="checkbox"/> Administrative <input checked="" type="checkbox"/> SR&QA
6. References: a. JPR 1700.1, JSC Safety and Health Handbook b. JSC 17773, Instruction for Preparation of Hazard Analyses for JSC Ground Operations c. NPR 8621.1, NASA Procedural Requirements for Mishap Reporting, Investigating, and Recordkeeping d. NPR 8715.3, NASA Safety Manual e. NPD 8735.1, Procedures for Exchanging Parts, Materials, and Safety Data Utilizing the Government-Industry Data Exchange Program and NASA Advisories f. JPR 7120.3, Project Management: Systems Engineering & Project Control Processes & Requirements g. JSC 8080.5A, JSC Design & Procedural Standards h. MIL-STD-882D, Standard Practice for System Safety			7. Interrelationships:  SOW 2.11

8. Preparation Information:

- a. Data Type: 1
- b. Scope: The elements of a System Safety Program Plan (SSPP) as outlined below are generic; refer to the appropriate applicable references listed above for specific program requirements. System Safety Program Plans are to be tailored for individual safety engineering projects as integral parts of a formal, disciplined system safety program plan implemented by the Contractor
- c. Content: The SSPP shall be developed for the contract to plan, establish, document, and implement:
  - (1) System Safety design and operational performance requirements (qualitative and quantitative).
  - (2) System Safety maintenance concepts.
  - (3) Requirements and tasks for System Safety engineering, analysis, and testing (including hardware, software, firmware, and human elements).
  - (4) Timely and continuous assessment of the progress toward achieving the System Safety requirements, including identification of areas for improvement.
  - (5) Integration of System Safety processes and analytical activities with systems engineering, risk management, and other processes, assessments, and analyses including, but not limited to, quality, logistics, reliability, maintainability, availability, probabilistic risk assessment, life-cycle cost, configuration management, and maintenance.
- d. Format: The plan shall be delivered in the contractor's format. The plan shall be delivered to DDMS in native format, compatible with Microsoft Word.
- e. Distribution: Per Contracting Officer's letter.
- f. Submission:
  - i. Initial: Contract award + 28 days.
  - ii. Final: Contract award + 56 days.
  - iii. Approval: Contract start + 28 days.
  - iv. Frequency: As required.
- g. Maintenance: Update as required. This plan shall be maintained in the DDMS.



1. DRD Title  Lessons Learned Program Plan and Lessons Learned	2. Date of current version  11/17/2009	3. DRL Line Item No.  DRD-NSOC-21	RFP/Contract No.  NNJ09040809R
4. Use:  Establishes Process for obtaining Lessons Learned from Contractor for possible publication in JSC Lessons Learned Database and NASA Lessons Learned Information System (LLIS)			5. DRD Category:  <input type="checkbox"/> Technical <input type="checkbox"/> Administrative <input checked="" type="checkbox"/> SR&QA
6. References: a. JPD 72310.1 and JPD 2310.2 JSC, Organizational Learning Program b. NPR 7120.6, Lessons Learned Process c. NPR 8621.1, NASA Procedural Requirements for Mishap Reporting, Investigating, and Recordkeeping d. NPR 8715.3, NASA Safety Manual			7. Interrelationships:  SOW 2.11

8. Preparation Information:

- a. Data Type: 1
- b. Scope: The contractor will develop and implement a lessons learned program plan consistent with the areas defined in the statement of work and/or the work breakdown structure.
- c. Content: The lessons learned program plan will include:
  1. Lessons learned program structure and management responsibility for lessons learned.
  2. Lessons Learned advocacy throughout the contracted effort.
  3. Approach to selection, review, and validation of lessons learned using contract and government assets.
  4. 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.
  5. 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.
  6. 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.
  7. 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.
  8. 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.)

Access to the JSC Lessons Learned Database and the NASA Lessons Learned Information System.

1. 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 databases is accessible at <http://lldb.jsc.nasa.gov/>
2. To obtain access to the NASA Lessons Learned Information System, go to <http://nen.nasa.gov/portal/site/llis/LL/> and follow instructions.

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.

Content of Lessons.

Subject - one line subject of the lesson.

Lesson Learned - usually one sentence that describes insight gained

Description of Event - narrative that describes what happened.

Recommendations - may be an action plan, suggestion, etc., that was adopted at event source.

Supporting documentation – submit as needed to augment understanding of lesson (photographs with or without pointers and text labels), illustrations, drawings, etc.)

Contact name and e-mail address (for follow up by Government prior to publication of lesson)

Definitions.

Refer to NASA LLIS at <http://nen.nasa.gov/portal/site/llis/LL/> and JPR 2310.11 for definitions of terms used.

Evaluation of Contactor Lessons Learned Program performance.

The following characteristics are evaluated by the Government in order of decreasing importance:

1. Effectiveness of approach to lessons learned advocacy.
2. Ability to recognize and capitalize on lessons learned in a timely manner.
3. 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.

Technical quality of lessons submitted including thoroughness and readiness of supporting documentation for publication.

d. Format: The plan shall be delivered in the contractor's format. The lessons shall be delivered per JSC LLDB.

e. Distribution: Per Contracting Officer's letter.

f. Submission:

Plan:

- i. Initial: Contract start
- ii. Final: Contract start + 30 days.
- iii. Approval: Contract start + 30 days
- iv. Frequency: As required.

LL Schedule: As follows (in order of decreasing Government preference):

- i. Data entry to the JSC LLDB or NASA LLIS within 30 days of a triggering event;
- ii. Within 30 days of a program milestone, mishap investigation, or hazard or other engineering analysis / evaluation is completed; or
- iii. 30 days prior to end of contract evaluation period or 45 days prior to end of contract, whichever is applicable.

g. Maintenance: Review the plan annually or as directed by the CO. Provide a copy of the updated plan with the changes highlighted to the distribution list above 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.

1. DRD Title  Environmental and Energy Consuming Product Compliance Reports	2. Date of current version  01/18/2007	3. DRL Line Item No.  DRD-NSOC-22	RFP/Contract No.  NNJ09040809R
4. Use:  Used to complete JSC's required annual report to NASA HQ on affirmative procurement, waste reduction, energy efficient product procurement, and ozone depleting substances.			5. DRD Category:  <input type="checkbox"/> Technical <input checked="" type="checkbox"/> Administrative <input type="checkbox"/> SR&QA
6. References: a. JPR 8550.1 JSC Environmental Compliance Procedural Requirements b. JPR 8553.1 JSC Environmental Management System (EMS) Manual			7. Interrelationships:  SOW 2.12

8. Preparation Information:

- a. Data Type: 2
- b. Scope: Purchases under this contract for JSC site.
- c. Content:

For Section IV, if the Contractor does not purchase, own, operate, maintain, or repair Ozone Depleting Substances (ODS) equipment on-site, the report shall be a statement to that effect.

"Fiscal year" is the Federal Government fiscal year and is defined as October 1 through September 30.  
Section I. Annual Affirmative Procurement Report

The Contractor shall track and report each January 15 to the JSC Environmental Office the following information regarding the purchase by the Contractor (including subcontracts) of all products on the U. S. Environmental Protection Agency's Comprehensive Procurement Guideline list and items on the USDA Farm Bill Biobased list:

1. The total amount of each item purchased during the previous fiscal year in \$,
2. The total amount of each listed item purchased during the previous fiscal year that contained at least the minimum recommended percentages of recycled content or biobased content during the fiscal year in \$,
3. The total amount of each listed item purchased during the previous fiscal year that contained some recycled content or biobased content but less than the minimum recommended percentages of recycled content or biobased content during the fiscal year in \$,
4. The number of waivers and the name of the item each waiver was requested for submitted to the Environmental Office during the previous fiscal year,
5. The total amount purchased for each waived item during the previous fiscal year in \$, and
6. A narrative explanation of constraints for purchasing each item that did not meet affirmative procurement or biobased content requirements during the previous fiscal year.

Section II.a Waste Reduction Activity Report

The Contractor shall track and report each January 15 to the JSC Environmental Office any new process improvements or programs undertaken by the Contractor (or subcontractors) that have contributed to waste reduction during the previous fiscal year. Waste reduction is defined as increasing the percent of waste material diverted from the landfill. This may be accomplished through source reduction, increasing reuse, and/or recycling of items that would normally go to the landfill (trash). The information will be included in JSC's annual report to NASA HQ on waste reduction activities. Try to limit responses to one page or less per process improvement or program. The response should include a description of the activity, the materials or wastes reduced, an estimated volume or weight of reduction, and a contact name and phone number for a person knowledgeable about the reduction activity.

**Section II.b. For Construction/Facility Modification Contracts Only:**

The Contractor shall track and report to the JSC Environmental Office the total weight in pounds of material sent to the landfill (this does not include shipments managed and paid for by the Environmental Office or their support contractor) and the total number of pounds of material recycled by media (scrap metal, wood, concrete, soil). The report is due within 30 calendar days of completion of all waste generating and recycling activities or of final waste shipments associated with the project and in no case later than completion of the contract.

**Section III. Annual Energy Efficiency Product Procurement Report**

The Contractor shall report to the JSC Energy Manager, on January 15 of each year, information on purchases of energy consuming products made by the Contractor (including subcontracts) beginning upon contract start. This includes the purchase of premium efficiency motors and efficiency lighting covered by Public Law 109–58, Energy Policy Act of 2005. The report shall provide the following:

1. A list of all energy consuming products purchased during the previous fiscal year.
2. The total purchase cost of each item on the list.
3. A designation of which items were Energy Star or Federal Energy Management Program (FEMP)-sanctioned.
4. For each Energy Star or FEMP-sanctioned product purchased, provide:
  - i. The simple payback value as determined by the contractor's life cycle cost analysis.
  - ii. The annual savings in dollars and BTUs due to the purchase of the item
5. Metrics which show the effectiveness of the contractor's purchases
  - i. Percentage of purchased products that are Energy Star and FEMP-sanctioned against the total number of energy consuming products purchased.
  - ii. Total dollar value of the purchased products that are Energy Star and FEMP-sanctioned against the total dollar value of all energy consuming products purchased.

**Section IV. Ozone Depleting Substances (ODS) Reports**

The Contractor shall track and report each January 15 to the JSC Environmental Office the following information for the previous fiscal year related to ODS equipment that the contractor purchases, owns, operates, maintains, or repairs on-site:

1. A list of the names of all EPA-Certified service technicians employed and their certification dates.
  2. A list of any ODS recovery/recycling equipment that will be used and copy of the 40 CFR 82.162 (Title 40 Code of Federal Regulations Part 82, Protection of Stratospheric Ozone, Subpart F, Recycling and Emissions Reduction, § 82.162, Certification by Owners of Recovery and Recycling Equipment) EPA registration.
  3. A list of any refrigeration/air conditioning units with a full charge of more than 50 pounds, not previously reported, including
    - i. Any identifying equipment numbers.
    - ii. The location of the equipment (building/room).
    - iii. The owning organization or contract name and number.
    - iv. A narrative description of the equipment.
    - v. Refrigeration or air conditioning equipment with a full charge of > 50 pounds, permanently removed from service during the year.
- d. Format: JSC Environmental Office direction.
- e. Distribution: Per Contracting Officer's letter.
- f. Submission:
- i. Initial: N/A
  - ii. Final: N/A
  - iii. Approval: N/A

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- iv. Frequency: Annually.
- g. Maintenance: N/A

1. DRD Title  Non-conformance Record Template	2. Date of current version  11/17/2009	3. DRL Line Item No.  DRD-NSOC-23	RFP/Contract No.  NNJ09040809R
4. Use:  To ensure that all non-conformances are documented in consistent manner and to ensure that all the necessary data is included and available.			5. DRD Category:  <input type="checkbox"/> Technical <input checked="" type="checkbox"/> Administrative <input type="checkbox"/> SR&QA
6. References: c. Problem Reporting and Corrective Action (PRACA) for Johnson Space Center (JSC) Government Furnished Equipment (GFE), d. ANSI/ISO/ASQ Q9001-2008, Quality Management Systems Requirements			7. Interrelationships:  SOW 2.13

8. Preparation Information:

- a. Data Type: 1
- b. Scope: This DRD establishes the minimum data elements necessary to provide records of the closed loop system for the control of non-conforming products. A non-conformance is defined as hardware or materials that fail to meet a specified requirement. Non-conformance shall commence with initial receipt of materials or articles for the procurement and continue through all subsequent phases of the program.
- e. Content: The record shall contain the following data elements:
  - 1. A unique and traceable number,
  - 2. Identification of the non-conforming article or material:
    - i. Nomenclature,
    - ii. Part identification number,
    - iii. Serial no./Lot no./Version,
    - iv. 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 shall be made to applicable procedure numbers,
  - 7. When appropriate, identification of the next higher assembly:
    - i. Nomenclature,
    - ii. Part identification number,
    - iii. Manufacturer's name or the Manufacturer's CAGE code (preferable),
  - 8. Disposition of the non-conforming 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 reports.
- d. Format: Contractor's format.
- e. Distribution: Per Contracting Officer's letter.
- f. Submission:
  - i. Initial: Contract start + 14 days.
  - ii. Final: Contract start + 30 days.
  - iii. Approval: Contract start + 60 days.
  - iv. Frequency: As required <sup>t</sup>.
- g. Maintenance: Revisions shall be incorporated by change page or complete reissue.





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  10/20/2009	3. DRL Line Item No.  DRD-NSOC-24	RFP/Contract No.  NNJ09040809R
4. Use:  This DRD provides the minimum information to be incorporated into the contractor's and subtier contractor implementation procedures and contractual data reporting requirements to comply with the requirement to participate in GIDEP and NASA Advisory Problem Data Sharing and Utilization Program			5. DRD Category:  <input type="checkbox"/> Technical <input type="checkbox"/> Administrative <input checked="" type="checkbox"/> SR&QA
6. References: a. SO300-BT-PRO-010 GIDEP Operations Manual b. SO300-BU-GYD-010 GIDEP Requirements Guide c. NPD 8735.1 NASA Procedure for Exchanging Parts, Materials, and Safety Problem Data Utilizing the Government Industry Data Exchange Program and NASA Advisories			7. Interrelationships: Non-Conforming Parts and Materials Reports SOW 2.13

8. Preparation Information:

- a. Data Type: 2
- b. Scope: Incidents involving non-conforming products or materials are to be reported through the GIDEP Reporting System to comply with Government Policy as defined by Office of Federal Procurement Policy, Policy Letter No. 91-3 (Appendix D of GIDEP Operations Manual, SO300-BT-PRO-010). Generic problems reported by GIDEP or NASA Advisory distribution networks shall be assessed to determine if there is a real or potential impact on the program or program assets. Generic problems experienced by the program or by program assets shall be reported in the GIDEP or NASA Advisory network, as appropriate. Management documentation shall be adequate to ensure that (1) the subject problem data are received, properly distributed, and thoroughly assessed for potential impact; (2) identified impact issues are resolved or corrected with NASA program management concurrence; (3) cost data for special problem issues are accumulated and reported; and (4) all this information is captured and retained in a database. Special controls shall be implemented to comply with the confidentiality of the problem reports involving criminal investigations. The implementation procedures shall address this special need for the control of information with the restricted distribution as well as the need to track and report the cost of the problem investigation and resolution.
- c. Content: The lessons learned program plan will include:
  - i. The Contractor and sub tier Implementation procedures shall provide details that shall ensure that the Contractor understands and shall implement these procedures, which cover the scope; task importance; management responsibilities; technical expertise to identify and resolve any impacts; "special problem" information sensitivity; and documentation necessary to comply with GIDEP and NASA policies.
  - ii. GIDEP documents are to comply with the GIDEP Operations Manual and Policy requirements for the appropriate document being prepared and released.
  - iii. NASA Advisories are to comply with contents as required to complete the JSC NASA Advisory Form, JSC Form 1159 (JF1159), and to accurately report the problem and conditions.
  - iv. Implementation documentation shall include an index of problem reports received and assessed for impact; hardware/systems/subcontractors subject to the assessments; status of the impact assessments by problem report by hardware/system/subcontractor; and corrective actions for problems with identified impacts, including (1) NASA program management involvement and concurrence, (2) required supporting documentation for all problems experienced on the program/project that meet the criteria for release of a GIDEP report or NASA Advisory and the released GIDEP reports and NASA Advisories, and (3) any other data required to comply with the applicable GIDEP and NASA documents.
  - v. Details of the required milestone/mission support efforts and reports with the associated roles and responsibilities shall be provided.
  - vi. Financial data to justify and substantiate any reported "cost impacts" are to be included.

- d. Format: Electronic submittal is the preferred medium for providing access to or submittal of information and data under this DRD. Format guidelines are as follows:
  - i. The Contractor's format is acceptable for their internal implementation procedures.
  - ii. GIDEP documents are to be prepared on the appropriate GIDEP form found in the GIDEP Operations Manual.
  - iii. NASA Advisories are to be prepared on the JSC NASA Advisory Form, JF1159.
  - iv. The Contractor's format is acceptable for providing the "Task Management, Control, and Tracking Status," as long as it includes all the necessary information. An electronic database with access permission to appropriate NASA personnel is preferred.
  - v. Formats for these reports are to comply with the applicable milestone/mission event.
  - vi. Cost data are to be provided as required by the financial management reporting system and as necessary to substantiate the data being submitted in support of criminal investigations.
- e. Distribution: JSC GIDEP/NASA Advisory Coordinator.
- f. Submission:
  - i. Initial:
    - 1. Contractor and sub tier implementation procedures (60 calendar days after contract award); also identification of a Point of Contact (POC) to the NASA Advisory Coordinator at jsc-jscadvoc@mail.nasa.gov
    - 2. Release of GIDEP documents (in compliance with GIDEP Operations Manual and Policy).
    - 3. Coordination for Release of NASA Advisories (in accordance with NASA policy).
    - 4. Problem data assessments (30 calendar 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).
  - ii. Final: N/A
  - iii. Approval: N/A
  - iv. Frequency: As required.
- g. Maintenance: Data shall be maintained as required to:
  - i. Document the current implementation procedures and GIDEP and NASA Advisory policies.
  - ii. Ensure that the released GIDEP information is complete, factual, accurate, and up to date.
  - iii. Ensure that the released NASA Advisory information is complete, factual, accurate, and up to date.
  - iv. Tracking status provided periodically to demonstrate complete accomplishment of the task.
  - v. Stay current and accurate or as requested to support management activities.
  - vi. Substantiate submitted costs or to include additional costs as they are identified.

1. DRD Title  Organizational Conflicts of Interest (OCI) Avoidance Plan	2. Date of current version  12/1/09	3. DRL Line Item No.  DRD-NSOC-25	RFP/Contract No.  NNJ09040809R
4. Use:  To document the Contractor's implementation plan for avoiding, neutralizing, and mitigating organizational conflicts of interest.			5. DRD Category:  <input type="checkbox"/> Technical <input checked="" type="checkbox"/> Administrative <input type="checkbox"/> SR&QA
6. References:  a. FAR Subpart 9.5, Organizational and Consultant Conflicts of Interest			7. Interrelationships:  SOW 2. 4

8. Preparation Information:

a. Data Type: 2

b. Scope: The NSOC OCI Avoidance Plan describes the Contractor's comprehensive management approach and implementation methods for avoiding, neutralizing, or mitigating the occurrence of an OCI.

c. Content:

The plan shall address all organizational conflicts of interest to prevent the existence of conflicting roles that might bias a contractor's judgment and create an unfair competitive advantage. The plan shall establish specific and timely methods to identify, evaluate, and resolve organizational conflicts of interest. FAR Subpart 9.5 describes the nature of these applicable relationships.

The Contractor OCI Avoidance Plan shall identify the threat of an OCI, assess the likelihood of it occurring, evaluate the impact, and institute mitigation measures to both prevent the occurrence and minimize the impact.

The Contractor OCI Avoidance Plan shall document the general procedures that the Contractor will use to respond to OCI issues that are identified.

The Contractor OCI Avoidance Plan shall include at least the following information:

- i. Purpose – A summary of the Contractor's rationale for instituting and applying the OCI Avoidance plan;
- ii. Update Criteria – A description of the criteria and process for determining when an update to the plan is required;
- iii. OCI Assessment Methodology – A summary of the general methodology used to avoid, neutralize or mitigate OCI issues;
- iv. OCI Risks – A description of potential OCI risks, due to the Contractor's relationships or potential relationships with the Government, other companies, and other contracts. The description shall characterize the risk and measures to avoid, neutralize, or mitigate each OCI threat;
- v. Personnel Clearance Procedures – A description of the procedures the Contractor will use if needed to identify and partition Contractor personnel requiring access or participation in activities that would otherwise create an OCI issue;
- vi. OCI Response Procedures – A summary of the steps that the Contractor will take when an OCI has been identified or when circumstances have changed such that an OCI issue is probable;
- vii. OCI Training – A description of the training to be provided to its personnel regarding potential OCI on this contract.

d. Format: The Contractor's electronic format is acceptable.

e. Distribution: Per Contracting Officer's letter.

f. Submission:

- i. Initial: Contract award + 30 days.
  - ii. Final: Contract award + 60 days.
  - iii. Approval: Contract start + 30 days.
  - iv. Frequency: Annual.
- g. Maintenance: Annual and in accordance with Contractor determined update criteria.

1. DRD Title  Emergency Preparedness and Disaster Recovery Plan	2. Date of current version 12/4/09	3. DRL Line Item No. DRD-NSOC-26	RFP/Contract No. NNJ09040809R
4. Use: To describe the Contractor's approach for emergency preparedness and disaster recovery.			5. DRD Category: <input type="checkbox"/> Technical <input checked="" type="checkbox"/> Administrative <input type="checkbox"/> SR&QA
6. References: a. NPD 8710.1, Emergency Preparedness Program b. JPR 1040.4, JSC Emergency Preparedness Plan c. JPR 1700.1, JSC Safety & Health Handbook d. NPR 2810.1A, Security of Information Technology e. Office of Management and Budget (OMB) Circular A-130, Appendix III, Security of Federal Automated Information Resources f. NPD 2810.1C, NASA Information Security Policy g. Homeland Security Presidential Directive/HSPD-12 Subject: Policy for a Common Identification Standard for Federal Employees and Contractors h. HSPD-20 Subject: National Continuity Policy			7. Interrelationships:  SOW 2.8.1

8. Preparation Information:

- a. Data Type: 1
- b. Scope: The Emergency Preparedness and Disaster Recovery Plan describes the Contractor's approach for emergency preparedness and disaster recovery.
- c. Content: The Emergency Preparedness and Disaster Recovery Plan shall include:
  - i. The names of the NBL and SVMF Safety and Health POCs, who shall coordinate all emergency preparedness within the facilities.
  - ii. Annual update of emergency response plans (e.g., Hurricane checklist)
  - iii. Employee training plan to test process and procedures in preparation of an event. (e.g., Mock hurricane)
  - iv. Identification of specific equipment/facilities that require backup,
  - v. Identification of backup strategies,
  - vi. Update SCTF Emergency Action Plan (EAP)
  - vii. Update SVMF Emergency Action Plan (EAP)
  - viii. Provide annual input into JSC Emergency Preparedness Plan (EPP)
  - ix. Methods to alert employees of hazards and emergencies, account for all employees to verify their status, and provide continuing information during an extended emergency.
  - x. Methods to ensure business continuity and enable a more rapid and effective response to and recovery from a national emergency
- d. Format: The Contractor's discretion, unless otherwise agreed upon between NASA and the contractor.
- e. Distribution: Per Contracting Officer's letter.
- f. Submission:
  - i. Initial: Contract start + 15 days.
  - ii. Final: Contract start + 45 days.
  - iii. Approval: Contract start + 90 days
  - iv. Frequency: Annual.
- g. Maintenance: Revisions shall be incorporated by change page or complete reissue.

1. DRD Title  Records Management Plan	2. Date of current version  12/4/2009	3. DRL Line Item No.  DRD-NSOC-27	RFP/Contract No.  NNJ09040809R
4. Use: To describe the Contractor's records management organization, processes and systems.			5. DRD Category: <input type="checkbox"/> Technical <input checked="" type="checkbox"/> Administrative <input type="checkbox"/> SR&QA
6. References: a. NPD 1440.6G, NASA Records Management b. NPR 1441.1D, NASA Records Retention Schedules			7. Interrelationships:  SOW 2.0

8. Preparation Information:

- a. Data Type: 1
- b. Scope: The plan will document the Contractors' processes for identifying, collecting, maintaining, and archiving all records generated during the performance of all tasks in this SOW. This shall include plans for disposition of these records at the end of the contract.
- c. Content: The Records Management Plan shall address the Contractor's plans for identifying, collecting, maintaining, and archiving all official records generated under this contract.
- d. Format: Contractor's electronic format is acceptable.
- e. Distribution: Per Contracting Officer's letter.
- f. Submission:
  - i. Initial: Contract start + 10 days.
  - ii. Final: Contract start + 36 days.
  - iii. Approval: Contract start + 81 days.
  - iv. Frequency: Annual.
- g. Maintenance: Revisions shall be incorporated by change page or complete reissue.

1. DRD Title  Information Technology (IT) Plan and Reports	2. Date of current version  12/4/2009	3. DRL Line Item No.  DRD-NSOC-28	RFP/Contract No.  NNJ09040809R
4. Use:  To document the Contractor's compliance with Federal and NASA IT Planning and Reporting regulations and requirements.			5. DRD Category:  <input type="checkbox"/> Technical <input checked="" type="checkbox"/> Administrative <input type="checkbox"/> SR&QA
6. References: a. JSC-27201, Standard Facilities Practices and Technologies Handbook – Version 1.0 b. Information Technology Management Reform Act of 1996 c. CIO Information Resources Management Strategic Plan (Sept. 2007) d. Office of Management and Budget (OMB) Circular A-11, Preparing, Submitting, and Executing the Budget e. Executive Order 12845, Requiring Agencies To Purchase Energy Efficient Computer Equipment f. The Rehabilitation Act of 1973: Section 508 g. JSC Capital Planning and Investment Control (CPIC) Process h. JSC-62818, Information Technology Management Plan i. JSC-29234, MOD Information Technology Security and Contingency Planning Processes j. NASA HQ CIO Network Discovery Template k. NASA HQ CIO Data Center Discovery Template l. NASA Application Tracking Tool (NATT) Definitions m. NASA Information Discovery Guidance Document			7. Interrelationships:  SOW 2.9

8. Preparation Information:

- a. Data Type: Plan – 1, Reports – 2
- b. Scope: The plan shall document the Contractor's compliance with Federal and NASA IT planning and reporting regulations and requirements.
- c. Content: The Contractor's Information Technology plan defines the Contractor's method to accomplish meeting IT PPBE, FY IT Plans, IT Capital Planning and Investment Control, and IT Standards. The plan shall also address the collection and maintenance of the NASA Data Center IT template, Network IT template, and the online NASA System for Registering and Tracking Applications and Websites (STRAW) information.
- d. Format: Plan – As outlined in the MOD Information Technology Management Plan document and the NASA Information Discovery Guidance Document.
- e. Distribution: Per Contracting Officer's letter.
- f. Submission:
  - i. Plan Initial – Contract award + 21 days.
  - ii. Plan Final – Contract award + 46 days.
  - iii. Plan Approval – Contract start + 35 days.
  - iv. Plan Frequency – As required by the MOD Information Technology Management Plan.
  - v. Report Frequency – Per COTR TIRF.
- g. Maintenance: Revisions shall be incorporated by change page or complete reissue.



1. DRD Title  Technical Metrics Plan and Reports	2. Date of current version  1/22/10	3. DRL Line Item No.  DRD-NSOC-29	RFP/Contract No.  NNJ09040809R
4. Use:  The Technical Metrics Plan shall define measures and measurement methodologies to assess the Contractor's schedule and technical performance relative to key system and process attributes.			5. DRD Category:  <input checked="" type="checkbox"/> Technical <input type="checkbox"/> Administrative <input type="checkbox"/> SR&QA
6. References:			7. Interrelationships:  SOW 2.5

8. Preparation Information:

- a. Data Type: Plan – 1, Reports – 2
- b. Scope: The Technical Metrics Plan describes the Contractor's integrated measurement system for assessing and responding to schedule and technical performance relative to key system and process attributes. The scope of measurement includes all products, services, and processes specified in the Statement of Work (SOW) regardless of the performing organization, (e.g. prime, subcontractor).
- c. Content: The Technical Metrics Plan shall describe:
  2. The contractor's comprehensive approach to gathering all metrics data and utilizing it to assess and respond to safety, schedule and technical performance relative to key system, process and operational attributes. The scope of measurement shall include all products, services, and processes specified in the Statement of Work (SOW) regardless of the performing organization, (e.g. prime, subcontractor).
  3. All key technical metrics that the Contractor will use to manage safety, schedule and technical performance on the Contract, what each will be used to assess and a brief rationale for that choice. The planned measures shall also include the technical metrics defined in the Statement of Work (SOW) for assessment against the thresholds established uniquely for each facility.
  4. The contractor's approach to accepting metrics data from the previous contract. For previous metrics data that is common to the current contract, describe how the data will be incorporated into a continuous set of metrics data (representing the old data and new data generated on the current contract). For previous metrics data that is not common to the current contract, describe how the data will be preserved for future use and how it will be made accessible to NASA.
  5. In addition to the contractor-determined metrics data identified in response to the above descriptions, the contractor shall provide metrics data needed by NASA to perform the government's management, oversight and planning functions. The following sections describe NASA's metrics data requirements, frequency and desired reporting formats. Contractors are encouraged to propose alternate, innovative ways to generate the tables/formats. The data shall be provided in Microsoft Excel unless an alternate method/tool is agreed-to with NASA.
- d. Format: Contractor discretion, unless otherwise specified or requested by NASA.
- e. Distribution: Per Contracting Officer's letter.
- f. Submission:
 

Technical Metrics Plan:

  - i. Initial: Contract award + 5 days.
  - ii. Final: Contract award + 35 days.

- iii. Approval: Contract award + 55 days.
- iv. Frequency: Contract start + 1 year. After that as required.

Technical Metrics and Reports:

- i. Initial: 10 days following close of the first month after approval of the Plan.
- ii. Final: N/A.
- iii. Approval: N/A.
- iv. Frequency: 10 days following close of each month, unless otherwise specified by NASA in this DRD.

g. Maintenance:

Technical Metrics Plan: Change pages or complete reissue.

Technical Metrics Reports: N/A.

### **General data for NASA's use**

Non-labor resources (NLR). Annually, provide a detailed report of all NLR expenses for the entire fiscal year. This data shall be reported by WBS element, no later than October 15 for the previous fiscal year. Detailed format is at contractor discretion, unless otherwise requested by NASA.

### **NBL-unique metrics data for NASA's use**

All data for the NBL to be reported monthly unless otherwise agreed upon with NASA.

#### **A. Safety Report**

This section shall summarize any close calls, mishaps, incidents, and lost time injuries. Raw number and trend data shall be provided in chart format. This report shall also provide a list of all investigations that are still open with an Estimated Completion Date (ECD) and a list of all actions in other JSC tracking systems (eg. Hazard Abatement Tracking System (HATS), Quality Process Improvement Database (QPID)). Additionally, this section shall detail significant safety activities.

#### **B. Technical Performance**

This section shall detail how the Contractor performed for the period, including major accomplishments. This shall also include a description of anomalies that have affected, or may affect completion of scheduled activities. This section shall also include, in chart format, facility utilization, in-water activity, and discrepancy metrics as identified below.

##### **i. Facility Utilization:**

1. Facility utilization percentage.
2. Total man hours utilized in support of external-user operations and man hours offset due to external user operations.
3. Man hours used for run setup reconfiguration. Specify between suited operations, external-users or other relevant categories.
4. Provide the number of i-Maint work orders scheduled and completed. Provide rationale for work orders not completed.
5. Quantity of in-water and 1-G activities (planned vs. actual), rationale for any deltas.
6. Facility lost time totals and accountability (Contractor vs. other).

Facility utilization percentage shall be defined as the number of suited in-water activities actually accomplished divided by the number of suited in-water activities schedule slots. The number of available slots shall be based on the average number of runs per month, dependent on the current workload sizing.

##### **ii. In-water Activities:**

1. Late start and end time accountability (Contractor vs. other).
2. User grading.
3. Objectives (planned, possible, and completed), including breakdowns by flight.
4. Adequacy/quality of preparation (i.e. number of discrepancies/number of setup tasks).
5. Remote Manipulator (SRMS and SSRMS) availability and reliability, including breakdowns by flight.

##### **iii. Discrepancies:**

1. Critical or major DRs opened and worked during the month

#### **C. Projects**

This section shall detail project status, including adherence to major schedule milestones and problems that may affect completion or performance. This status shall include the approved CR/DO cost, the percent work complete, percent of funds remaining and approved completion date. The contractor shall also maintain a list of potential projects with a rough order of magnitude estimate and a list of projects that have been cleared for a detailed estimate, but have not been official approved by the DX or NBL CCB. This shall be provided weekly.

**D. Issues and Concerns**

This section shall provide a description of the Contractor's unresolved issues and concerns that have the potential to affect contract performance. This section shall also include the Contractor's plans and performance in addressing NASA identified issues, weaknesses and areas of emphasis.

**SVMF-unique metrics data for NASA's use****SVMF Report 1: Detailed individual mockup, trainer and system metrics**

Provide a table like the example below for each SVMF mockup, trainer and system (e.g., breathing gas, audio, video) every month. As a minimum, this table shall provide a continuous view of these metrics from contract start through contract end to facilitate trend analysis. All data shall be specified in clock-hours, unless otherwise indicated.

<b><i>Mockup Name</i></b>	<b>Time Available</b>	<b>Time Unavail-able<sup>1</sup></b>	<b>Assigned Crew Training</b>	<b>Non-Assigned Crew Training</b>	<b>Non-Crew Training</b>	<b>Instructor Practice /Cert</b>	<b>Proc Verif /Devel</b>	<b>Eng. Evals</b>	<b>Tours (inside Mock-up)</b>	<b>Set Up</b>	<b>Take Down</b>	<b>Maint-enance</b>	<b>Up-grades</b>	<b>Total Time Used</b>	<b>Percent Utilized</b>
<b>Oct-10</b>	215	0	29	1	21	4	0	5	5	34	34	16	23	<b>172</b>	<b>80%</b>
<b>Nov-10</b>															
<b>Etc . . .</b>															
<b>Totals:</b>															

**Notes:**

<sup>1</sup> This parameter will be used by NASA to assess the percent of availability and functionality for each mockup. In this field, identify the total number of hours that the mockup was unavailable to users for all causes. Include in this total all cases where a *subset* of mockup or system capability was unavailable to the users and the cause(s). Specify the causes and the number of hours the mockup was unavailable due to each individual cause in footnotes or by other equivalent methods.

**SVMF Report 2: Detailed Crew training metrics**

Provide a table like the example below every month. As a minimum, this table shall provide a continuous view of these metrics from contract start through contract end to facilitate trend analysis. All data shall be specified in clock-hours, unless otherwise indicated.

Month	Crew	Assigned/ Unassigned/ Other <sup>1</sup>	Class/training event name	Scheduled duration (clock hrs)	Comments
<b>Oct-10</b>	ISS Exp-1	A	Class A	4	
			Class B	3	
			Class C	3	
	ISS Exp-2	A	Class D	2.5	
	ISS Exp-3	U	Class E	3.5	
	Soyuz-2	A	Class B	3	
			Class C	3	
			Class D	2.5	
	STS-155	U	Class F	3	
	Orion-1	A	Class G	2	
	Orion-2	U	Class G	2	
<b>Nov-10</b>					
<b>Totals:</b>					

Notes:

<sup>1</sup> An unassigned crew is one that has not been officially announced but has begun training as an integrated crew. Use "other" for any crew training not included in "assigned" or "unassigned".

### SVMF Report 3: Summary utilization metrics – by hours

Provide summary tables like the examples below every month. As a minimum, each table shall provide a continuous view of these metrics from contract start through contract end to facilitate trend analysis. All data shall be specified in clock-hours, unless otherwise indicated. “Program” shall include Space Station, Constellation, and Space Shuttle (if applicable during the contract period).

Table 3.1: This table will be used to summarize mockup and trainer usage, one table per each Program. Do not include metrics data on “systems” in this table.

<i>Program name</i>	Time Available	Time Unavail-able	Training <sup>1</sup>	Proc Verif /Devel	Eng. Evals	Tours (inside Mock-up)	SVMF ops <sup>2</sup>	Total Time Used	% Utilized
<b>Oct-10</b>	215	0	55	0	5	5	84	<b>149</b>	<b>69%</b>
<b>Nov-10</b>									
<i>Etc . . .</i>									
<b>Totals:</b>									

Table 3.2: This table will be used to summarize total mockup and trainer usage across all Programs. Do not include metrics data on “systems” in this table.

<i>All Mockups and Trainers</i>	Time Available	Time Unavail-able	Training <sup>1</sup>	Proc Verif /Devel	Eng. Evals	Tours (inside Mock-up)	SVMF ops <sup>2</sup>	Total Time Used	% Utilized
<b>Oct-10</b>	215	0	55	0	5	5	84	<b>149</b>	<b>69%</b>
<b>Nov-10</b>									
<i>Etc . . .</i>									
<b>Totals:</b>									

Table 3.3: This table is intended to summarize total system usage across all systems.

<i>All Systems</i>	Time Available	Time Unavail-able	Training <sup>1</sup>	Proc Verif /Devel	Eng. Evals	SVMF ops <sup>2</sup>	Total Time Used	% Utilized
<b>Oct-10</b>	215	0	55	0	5	84	<b>149</b>	<b>69%</b>
<b>Nov-10</b>								
<i>Etc . . .</i>								
<b>Totals:</b>								

**Notes:**

<sup>1</sup> Training includes all training: assigned crew training, unassigned crew training, non-crew training and Instructor practice/certification. <sup>2</sup> SVMF ops includes: hours required for SVMF personnel to perform event set-up, take-down, maintenance and mockup/system upgrades.

#### NASA Report 4: Summary utilization metrics – by events

Provide summary tables like the examples below every month. As a minimum, each table shall provide a continuous view of these metrics from contract start through contract end to facilitate trend analysis. All data should be specified as “number of events”. “Program” shall include Space Station, Constellation, and Space Shuttle (if applicable during the contract period).

Table 4.1: This table will be used to summarize mockup and trainer usage, one table per each Program. Do not include metrics data on “systems” in this table.

<i>Program name</i>	Training <sup>1</sup>	Proc Verif /Devel	Eng. Evals	Tours (inside Mock-up)	SVMF ops <sup>2</sup>	Total Events
<b>Oct-10</b>	28	2	15	6	14	<b>65</b>
<b>Nov-10</b>						
<b>Etc . . .</b>						
<b>Totals:</b>						

Table 4.2: This table will be used to summarize total mockup and trainer usage across all Programs. Do not include metrics data on “systems” in this table.

<i>All Mockups and Trainers</i>	Training <sup>1</sup>	Proc Verif /Devel	Eng. Evals	Tours (inside Mock-up)	SVMF ops <sup>2</sup>	Total Events
<b>Oct-10</b>	28	2	15	6	14	<b>65</b>
<b>Nov-10</b>						
<b>Etc . . .</b>						
<b>Totals:</b>						

Notes:

<sup>1</sup> Training includes all training: assigned crew training, unassigned crew training, non-crew training and Instructor practice/certification. <sup>2</sup> SVMF ops includes: hours required for SVMF personnel to perform event set-up, take-down, maintenance & mockup/system upgrades.

Table 4.3: This table will be used to summarize tour activity.

Month	Shuttle (inside mockups)	Station (inside mockups)	Constellation (inside mockups)	Floor-only	Total <sup>1</sup>
<b>Oct-10</b>	25	15	3	42	56
<b>Nov-10</b>					
<b>Etc . . .</b>					

Notes:

<sup>1</sup> If an individual tour event enters multiple mockups, count that as only one tour in this total.



**SVMF Report 5: Test Readiness Reviews (TRRs) and Safety Reviews (SRs) Conducted**

Provide a table like the example below every month. As a minimum, this table shall provide a continuous view of these metrics from contract start through contract end to facilitate trend analysis. All data shall be specified in number of SRs or TRRs conducted, unless otherwise indicated.

Month	Number of SRs	Number of TRRs	Comments
Oct-10			
Nov-10			
<i>Etc . . .</i>			
<b>Totals:</b>			

### **Joint metrics data for NASA's use**

#### **Joint Report 1: Customer Satisfaction**

Provide a summary table that identifies the parameters NASA can use to monitor Customer Satisfaction. Include any ratings, scores and complaints received. Generate separate tables for NBL and SVMF. As a minimum, this table shall provide a continuous view of these metrics each month from contract start through contract end to facilitate trend analysis. Format is at contractor discretion, unless otherwise requested by NASA.

#### **Joint Report 2: Project Performance**

Provide a table like the example below every month. As a minimum, this table shall provide a continuous view of these metrics from contract start through contract end to facilitate trend analysis. Generate separate tables for NBL and SVMF. Include all baseline and IDIQ projects.

CR or DO number	Title	Est. Cost	Final actual cost	Deviation (%)	Est. complete date	Actual complete date	Deviation (%)	Met all req'ts?

#### **Joint Report 3: External Customers**

Provide a table like the example below every month. As a minimum, this table shall provide a continuous view of these metrics from contract start through contract end to facilitate trend analysis. Generate a single table that reflects both the NBL and SVMF. As a minimum, this table shall provide a continuous view of these metrics from contract start through contract end to facilitate trend analysis.

Fiscal Year	External Customer	NBL or SVMF activity?	Date of SAA or other NASA approval	Revenue Generated (K\$)	Comments

#### **Joint Report 4: Personnel Certification Status**

Provide a summary table that identifies the certification/qualification status of each individual who requires one or more formal certifications to perform their duties. Generate separate tables for NBL and SVMF. Highlight certifications that have expired or will expire in the current month in red and certifications expiring within 3 months in yellow. This table shall only contain data for the current month, but all previous month's data shall be retained and stored for access by NASA upon request. Detailed format is at contractor discretion, unless otherwise requested by NASA. A concise, easy-to-use, "quick-look" format is requested.

#### **Joint Report 5: Deviations, Waivers and Exceptions**

Provide a table like the example below every month. As a minimum, this table shall provide a continuous view of these metrics from contract start through contract end to facilitate trend analysis. Generate separate tables for NBL and SVMF.

Description	Waiver No.	Deviation No.	Exception <sup>1</sup> No.	Date presented to NASA	Approved/ Disapproved & date	Comments
<b>Totals</b>						

**Notes:**

<sup>1</sup> Exceptions" are defined as any agreed-to variance from an approved process or procedure that is not addressed as a formal waiver or deviation.

**Joint Report 6: Configuration Management performance.**

Provide a table like the example below every month. As a minimum, this table shall provide a continuous view of these metrics from contract start through contract end to facilitate trend analysis. Generate separate tables for NBL and SVMF.

<b>Title/Description of Problem</b>	<b>Date</b>	<b>Root Cause</b> (1 – 4 or “other”)	<b>Comments</b> (If “Root Cause” is “other”, explanation is required here)

Root cause codes:

1. Unapproved version(s) of software and/or operating system(s) in use
2. Mockup and/or system hardware did not conform to approved drawings
3. Equipment out of calibration
4. Unapproved checklist and/or procedure used during test and/or lifting operations.

**Joint Report 7: Unplanned maintenance**

Provide a table like the example below every month. As a minimum, this table shall provide a continuous view of these metrics from contract start through contract end to facilitate trend analysis. Generate separate tables for NBL and SVMF.

<b>Title &amp; Description of the unplanned maintenance activity</b>	<b>Date Performed</b>	<b>Findings, Comments</b>

1. DRD Title  Training and Certification Plan	2. Date of current version  11/17/2009	3. DRL Line Item No.  DRD-NSOC-30	RFP/Contract No.  NNJ09040809R
4. Use:  To describe the Contractor's plans for training and certification of operational support personnel.			5. DRD Category:  <input type="checkbox"/> Technical <input checked="" type="checkbox"/> Administrative <input type="checkbox"/> SR&QA
6. References: a. DA-WI-16, Mission Operations Directorate Space Flight Personnel Certification Plan, Space Shuttle and International Space Station b. DX12-POL-004, NBL Training and Certification Policy c. DX14-0037, Space Vehicle Mockup Facility Office Staff Certification			7. Interrelationships:  SOW 3.6.3

## 8. Preparation Information:

- a. Data Type: 2
- b. Scope: The training and certification plan describes the specific training requirements required by personnel to achieve and maintain certification in duty positions and qualified in the operations of equipment and systems. Note: Generation and submission of certification/qualification status reports is addressed in the Technical Metrics Plans and Reports DRD (NSOC-DRD-29).
- c. Content: The plan shall:
  - 1. Describe the Contractor's comprehensive process for ensuring that all personnel are fully qualified and certified for their positions.
  - 2. Describe the processes for establishing and maintaining the necessary training records for all personnel. Describe the method for supplying current information to update the NBL and SVMF Databases (NSOC-DRD-37).
  - 3. Define and describe the training plans/flows for each position requiring certification/qualification, including whatever training or actions are required to maintain certification/qualification.
  - 4. Demonstrate compliance with Government, NASA and JSC requirements.
- d. Format: Contractor Plan shall be organized in 3 separate parts: 1) information common to both NBL and SVMF; 2) NBL-unique information; 3) SVMF-unique information. All other formatting is at Contractor discretion unless otherwise agreed upon between NASA and the contractor.
- e. Distribution: Per Contracting Officer's letter.
- f. Submission:
  - i. Initial: Contract start + 15 calendar days.
  - ii. Final: Contract start + 50 days.
  - iii. Approval: N/A.
  - iv. Frequency: As required.
- g. Maintenance: The training and certification plan shall be updated to reflect any contract changes, and revisions shall be incorporated by change page or complete reissue.

1. DRD Title  Daily Report	2. Date of current version  11/17/2009	3. DRL Line Item No.  DRD-NSOC-31	RFP/Contract No.  NNJ09040809R
4. Use:  This information will be used in contractor performance evaluation and daily planning.			5. DRD Category:  <input checked="" type="checkbox"/> Technical <input type="checkbox"/> Administrative <input type="checkbox"/> SR&QA
6. References:			7. Interrelationships:  SOW 3.1.2

8. Preparation Information:

- a. Data Type: 2
- b. Scope: The Daily Report shall describe the daily activities conducted in each facility. Two separate reports shall be submitted, one for each facility.
- b. Content: At a minimum, each report shall include:
  - 1. Safety status, including any close calls, mishaps, incidents, and significant safety activities
  - 2. Activities completed since last report
  - 3. Activities scheduled for next reporting period, including any maintenance scheduled
  - 4. Any other condition that affected the operations or appearance of either facility
  - 5. Element status, including maintenance accomplished
  - 6. Equipment loans
  - 7. Customer feedback, including comments on the event and customer interface (e.g., personnel, procedures, web pages)
  - 8. Metrics:
    - i. For both facilities:
      - A. Customer evaluation scores and feedback, including customer comments
      - B. Number and brief description of DRs per category (Critical, Major and Minor) opened and closed
      - B. Number of tours accomplished
      - C. Number of Open actions listed by title for category I and II
    - ii. Additional NBL Metrics:
      - A. List of critical personnel (e.g., Users, Instructor, Test Director, Flight Lead and Suit Engineer)
      - B. Provide times when critical milestones are completed on test (e.g., call to station, initiate gas flow, test turned over to user, user turns test back over to facility).
      - C. Number and percentage of objectives accomplished
      - D. Work scheduled and conducted by the Center Operations Directorate contractor
      - E. System status (e.g., problem, repair status and projected maintenance) and if denote if it impacted an event.
    - iii. Additional SVMF Metrics:
      - A. Miscellaneous problems (i.e., something pertinent that is not covered by other categories above)

Topics may be added or deleted by mutual agreement between the customer and the contractor. All reports shall be electronically submitted and shall be available on a web page or in a database for future reference.

- d. Format: Contractor discretion, unless otherwise agreed upon between NASA and the contractor.
- e. Distribution: Per Contracting Officer's letter.

- f. Submission:
  - i. Initial: Contract start + 1 day.
  - ii. Final: N/A
  - iii. Approval: N/A
  - iv. Frequency: Daily. Prepared Monday through Friday and delivered prior to 7:30 a.m. Central Daylight Time (CDT) the following business morning. NASA approval is not required prior to submission.
- g. Maintenance: Revisions shall be incorporated by change page or complete reissue.

1. DRD Title  Management Review Report	2. Date of current version  1/14/2010	3. DRL Line Item No.  DRD-NSOC-32	RFP/Contract No.  NNJ09040809R
4. Use:  This information will be used in contractor performance evaluation.			5. DRD Category:  <input checked="" type="checkbox"/> Technical <input type="checkbox"/> Administrative <input type="checkbox"/> SR&QA
6. References:			7. Interrelationships:  SOW 2.0

8. Preparation Information:

- a. Data Type: 2
- b. Scope: This report describes the contractor's self-evaluation of its performance in meeting all contract requirements during the designated evaluation period.
- d. Content: The report shall include:
  - a. Safety Report summarizing any close calls, mishaps, incidents, and significant safety activities for the reporting period. Safety metrics shall be provided.
  - b. Technical Performance Report detailing Contractor performance for the reporting period, including major accomplishments and areas that need improvement. This shall also include a description of anomalies, which affected, or may affect completion of scheduled activities or delivery of Projects.
  - c. Report technical performance against requirements for the following:
    - i. Compliance with all applicable regulations, NASA policies, JSC Management Instructions and JSC Management Directives
    - ii. Attainment and retention of a properly trained, qualified and certified workforce in all jobs. Identify any jobs for which there are <2 people fully trained to perform all functions and planned corrective action.
    - iii. Satisfaction of facility users and any resulting process changes or corrective actions
    - iv. Facility utilization by external customers
    - v. Performance standards (Section C (SOW), Appendix C)
  - d. For the first 6 months of the contract, the contractor shall also report technical performance against requirements in the following:
    - i. Delivery of new and updated documentation that accurately reflects the latest NSOC and NASA processes.
    - ii. Status on implementation of the contractor's Safety program; e.g., status of implementing JSC Safety Manual (1700.1), contractor use of VPP or alternate approaches, response of personnel to contractor safety programs.
    - iii. Implementation of the contractor's Safety program;
    - iv. Implementation of the contractor's compliance with ISO-9000;
  - e. Contract Change Status for all Contract Change Orders
  - f. Cost Variance Report which provides details of any variance from plan greater than 10% at the 3<sup>rd</sup> level for delivery orders and at the 4<sup>th</sup> level for all other WBS elements, with a description of cause, impact, and recovery plan. Report not required for variances of \$1,000 or less.
  - g. Issues and Concerns Summary which provides a description of the Contractor's unresolved issues and concerns that have the potential to affect contract performance. Additionally, summary shall include the Contractor's plans and performance in addressing NASA identified issues, weaknesses and areas of emphasis.
- d. Format: A formal briefing not to exceed 30 minutes total duration.
- e. Distribution: Per Contracting Officer's letter.

- f. Submission:
  - i. Initial: Contract start + 90 days unless otherwise agreed to with NASA.
  - ii. Final: N/A
  - iii. Approval: N/A
  - iv. Frequency: At an agreed-upon frequency between NASA and the contractor. Report and accompanying review will be conducted no more frequently than monthly and no less frequently than quarterly.
- g. Maintenance: Revisions shall be incorporated by change page or complete reissue.



1. DRD Title  NBL Facility Utilization Summary	2. Date of current version 11/17/2009	3. DRL Line Item No. DRD-NSOC-33	RFP/Contract No.  NNJ09040809R
4. Use:  This information will be used by NASA and the user community to plan for and identify scheduled and upcoming events at the NBL.			5. DRD Category: <input checked="" type="checkbox"/> Technical <input type="checkbox"/> Administrative <input type="checkbox"/> SR&QA
6. References:			7. Interrelationships:  SOW 4.0

8. Preparation Information:

- a. Data Type: 2
- b. Scope: The NBL Facility Utilization Summary shall provide a twelve-month projection of all NBL events.
- e. Content: The summary shall:
  - 1. Identify by estimated date all forecasted special functions; facility down time; mission schedules; critical facility, system, and major mockup maintenance/unavailability; commercial projects and new project integration. Critical maintenance is determined to be any maintenance activity that precludes scheduling of a suited in-water activity or use of a specific mockup.
  - 2. Emphasize the scheduling of critical and preventive maintenance activities for both mockups and systems. Impacts to potential in-water and 1-G activities shall be identified and noted for use by community in developing the long range operational schedule. The results of this schedule will feed into the long range plan developed by the EVA community. It is not intended to be an exact duplicate of that schedule, but rather to support that scheduling activity.
- d. Format: Contractor discretion, unless otherwise agreed upon between NASA and the contractor.
- e. Distribution: Per Contracting Officer's letter.
- f. Submission: Once every six months.
  - i. Initial: Contract start + 180 days.
  - ii. Final: N/A
  - iii. Approval: N/A
  - iii. Frequency: Every 6 months.
- g. Maintenance: Revisions shall be incorporated by change page or complete reissue.

1. DRD Title  NBL In-water Activity Data Pack	2. Date of current version  11/17/2009	3. DRL Line Item No.  DRD-NSOC-34	RFP/Contract No.  NNJ09040809R
4. Use:  This data pack will be used to evaluate Contractor compliance with operations preparedness.			5. DRD Category:  <input checked="" type="checkbox"/> Technical <input type="checkbox"/> Administrative <input type="checkbox"/> SR&QA
6. References:			7. Interrelationships:  SOW 3.1.2

8. Preparation Information:

- a. Data Type: 2
- b. Scope: The NBL In-water Activity Data Pack shall describe daily in-water activities by date and title.
- c. Content: The data pack(s) shall include:
  - 1. Pre-dive form –both original and any revisions
  - 2. Checklists – original and any revisions for both the test day and reconfiguration checklists
  - 3. Reconfiguration summary sheet listing any discrepancies and/or problems found during the set-up activities
  - 4. Required tank layouts
  - 5. Daily Operations Report (DOR)
- d. Format: Contractor discretion, unless otherwise agreed upon between NASA and the contractor.
- e. Distribution: Per Contracting Officer's letter.
- f. Submission:
  - iv. Initial: Contract start + 1 day.
  - v. Final: N/A
  - vi. Approval: N/A
  - vii. Frequency: Prepared Monday through Friday and delivered prior to 7:30 a.m. Central Daylight Time (CDT) the following business morning. NASA approval is not required prior to submission.
- g. Maintenance: Revisions shall be incorporated by change page or complete reissue.

1. DRD Title  Reserved	2. Date of current version	3. DRL Line Item No. DRD-NSOC-35	RFP/Contract No.  NNJ09040809R
4. Use:			5. DRD Category: <input type="checkbox"/> Technical <input type="checkbox"/> Administrative <input type="checkbox"/> SR&QA
6. References:			7. Interrelationships:

8. Preparation Information:

- a. Data Type:
- b. Scope:
- c. Content:
- d. Format:
- e. Distribution:
- f. Submission:
  - i. Initial:
  - ii. Final:
  - iii. Approval:
  - iv. Frequency:
- g. Maintenance:

1. DRD Title  SVMF and NBL Weekly Report	2. Date of current version  11/17/2009	3. DRL Line Item No.  DRD-NSOC-36	RFP/Contract No.  NNJ09040809R
4. Use:  This information will be used in Contractor performance evaluation.			5. DRD Category:  <input checked="" type="checkbox"/> Technical <input type="checkbox"/> Administrative <input type="checkbox"/> SR&QA
6. References:			7. Interrelationships:  SOW 2.0

## 8. Preparation Information:

## a. Data Type: 2

b. Scope: The SVMF and NBL Weekly Report shall provide a summary of Contractor performance to cover the events of one week, as outlined below.

## c. Content:

The SVMF Weekly Report shall describe the detailed Contractor performance for the period. It shall include at least the following information, which may be adjusted as agreed to by NASA and the Contractor. All information shall be updated and reported weekly unless otherwise noted herein.

## i. Health and Safety status:

- i. Summarize the status of each open incident, mishap and close call.
- ii. Summarize the incidents, mishaps and close calls that have occurred in other NSOC facilities that could affect the SVMF (e.g., a close call experienced with an NBL crane controller).
- iii. Provide a graphic (e.g., a line plot) that shows the number of incidents, mishaps and close calls that have occurred in the SVMF during each of the last 12 months. Also identify the total number of incidents, mishaps and close calls that have occurred "year-to-date" in the current fiscal year.
- iv. Summarize any upcoming safety events or milestones.

## 2. Major accomplishments. Summarize the major accomplishments that occurred during the reporting period.

## 3. Facility status:

- i. Summarize the number of concerns identified on any safety walkthroughs or building inspections, by the following categories: safety concerns, facility maintenance concerns and housekeeping concerns.
- ii. Provide a brief status of the Facility Managers' "open work". Identify the number of open COD work orders and the number of work orders closed since the previous weekly report. Summarize the status of all open Work Authorizations and Form 930s.

## 4. Discrepancy Report (DR) status.

- i. Summary. Briefly summarize the following for each category of DR (Critical, Major, and Minor): total number of open DRs at the current time; number of DRs that have been open between 90 and 180 days; number of DRs open greater than 180 days; number of DRs closed during this reporting period; number of DRs opened during this reporting period; number of DRs that are ready to close but are awaiting approval from a non-NSOC organization (e.g., flight crew equipment, MOD EVA).
- ii. Major DRs. Provide the following information for each Major DR opened since last week's report: ID number; title; mockup/system impacted; current status;

## 5. Effectiveness of user feedback. Provide a brief summary that demonstrates the effectiveness of the contractor's mechanism for gathering user feedback related to each event. For example, if questionnaires are distributed to users to gather data after an event, the contractor might identify the total number of questionnaires distributed versus the total number actually returned. Note: actual user feedback is not reported in this DRD unless requested by NASA.

6. Test Readiness Review (TRR) status:
  - i. TRR scheduling. Provide the following information for every event whose current TRR will expire within the next 60 days: class/activity name; the expiration date of its most recent TRR; the *estimated* (planning) date that SVMF will conduct its next TRR; the official (scheduled) date for its next TRR; the estimated date that its TRR data will be distributed to TRR participants for review; the official (scheduled) date that its TRR data will be distributed to TRR participants; any relevant notes related to this TRR.
  - ii. TRR actions. Provide the following information for every event whose TRR has open action items: name of the TRR; date the TRR was conducted; description of the action item; whether or not the action item is classified as "mandatory" (e.g., must close before the event may proceed); name of the person responsible to complete the action item; assigned due date; current status of the action item; estimated completion date.
7. Hazard Report status. Provide the following information for every SVMF hazard report that will expire within the next 120 days: its name and document number; its priority (i.e., 1, 2 or 3); the date it was last reviewed/approved; percent complete at the current time; status and comments.
8. Baseline and IDIQ Project status. Provide the following information for every CR and DO: CR/DO number; the program it supports (e.g., ISS, CxP); the title; mockup manager and project engineer assigned to it; date the CR/DO was received by the contractor for action; date the contractor responded to the CR/DO; current status; sponsor's need date; estimated total cost; actual cost-to-date and estimated cost to completion (divided by fiscal year if the project spans more than 1 year).
9. Issues. Identify all issues pertinent to the Contractor's operations and management of the facility, the contractor's plan for resolving them and where NASA assistance is needed.
10. Action item review. Review the list of open action items and any assigned in the current meeting. (Review Level-I and Level II actions weekly and Level-III actions upon request by NASA) For each action, summarize the action item, actionee, due date and current status.

The NBL Weekly Report shall contain the following information, which may be adjusted as agreed to by NASA and the Contractor:

1. A description of major events and accomplishments from the previous week. It shall be split up between disciplines across the contract (e.g., Contracts, Engineering, Fabrication, Operations, Mission Assurance, Safety)
- d. Format: Presentation charts in a format of Contractor's choice, unless otherwise agreed upon between NASA and the Contractor.
  - e. Distribution: Per Contracting Officer's letter.
  - f. Submission:
    - i. Initial: Contract start + 7 days.
    - ii. Final: N/A
    - iii. Approval: N/A
    - iv. Frequency: Weekly. The SVMF report shall be provided as a briefing at a weekly SVMF status meeting and the NBL report shall be delivered at close of business on Thursday, unless otherwise agreed upon between NASA and the Contractor.
  - g. Maintenance: Revisions shall be incorporated by change page or complete reissue.

1. DRD Title  NBL and SVMF Database Management Plan and Databases	2. Date of current version 1/26/10	3. DRL Line Item No. DRD-NSOC-37	RFP/Contract No.  NNJ09040809R
4. Use:  To maintain and update the databases that store the data required to conduct the activities at the NBL and SVMF			5. DRD Category:  <input type="checkbox"/> Technical <input checked="" type="checkbox"/> Administrative <input type="checkbox"/> SR&QA
6. References:			7. Interrelationships:

8. Preparation Information:

- a. Data Type: Plan: 1; Databases: 2
- b. Scope: A database is generally defined as an electronic format that is both searchable and sortable (such as Excel Spreadsheet or an Access database). This DRD provides a Database Management Plan and databases to be used on the NSOC contract. This DRD identifies all databases to be used across the contract and a comprehensive plan for managing and maintaining them.
- c. Content: The Database Management Plan shall:
  - 1. Identify all databases that will be used to accomplish the requirements of NSOC. Provide a brief description of each, the SOW paragraph that it supports, the language/application used to implement it and its size (or estimated size if the database is not implemented at the time this DRD is approved). If the database is new, provide rationale to support its approval. Note: Table 1 identifies the databases that currently exist in the NBL and SVMF.
  - 2. Recommend which (if any) NBL and SVMF databases should be consolidated and which should remain separate. When separate databases are recommended, assess the feasibility of basing the separate databases upon common software application(s). For example, if the contractor recommends that NBL and SVMF use separate discrepancy reporting databases, the contractor shall assess and recommend whether it is practical to use the same software code/application for both databases.
  - 3. For each new or modified database, briefly summarize the recommended deployment plan and schedule.
  - 4. Describe the overall processes that will be used to implement, manage and maintain all databases. Note: It is acceptable to reference detailed work instructions, where appropriate.

Each database identified in the Database Management Plan shall be:

- 5. Implemented, managed and maintained on a schedule that makes it available for use when needed at the NBL and/or SVMF.
- 6. Accessible to NASA personnel who are approved by NASA Management
- d. Format: Plan and Databases: Contractor discretion, unless otherwise agreed upon between NASA and the Contractor
- e. Distribution:
  - i. Plan: Per contracting officer's letter.
  - ii. Databases: Electronic and hard copy reports of sorted records for each database shall be provided upon request.
- f. Submission:
  - 1. Plan:

- A. Initial: Contract start + 45 days
- B. Final: Contract start + 90 days
- C. Approval: Contract start + 180 days

2. Databases: As required to support NBL and SVMF requirements.

g. Maintenance: Revisions shall be incorporated by change page or complete reissue.

- i. Plan: Update as required.
- ii. Databases: Update as required to ensure all data is correct and up-to-date

Table 1: List of Current NSOC Databases (as of October 2009)

Database	Description	Language/application	Size (MB)
<b><i>NSOC-wide</i></b>			
CDM_drawings	NBL and SVMF Mockup Drawings. The two databases capture all Mockup inventory, including customer supplied products.	MySQL/Access	20
CDM_drawings	NBL & SVMF Technical Library. The two databases capture all the electronic data on mockup and systems in the NBL and SVMF. The databases shall be a general repository to ensure critical electronic data is preserved.	MySQL/Access	20
CS_Doc	NBL and SVMF Critical System Documents. The two databases capture all maintenance and inspections on critical systems.	MySQL/Access	1
Db_library	Resource library for training group. Allows employees to checkout learning materials.	MySQL/PHP	0.083
LMS	Learning Management System (COTS product). Application to administers tests. This version has old data.	MySQL/PHP/Zend	20
LMS9	Learning Management System 9 (COTS product) Same as LMS with upgraded software.	MySQL/PHP/Zend	81
Training	Training Management database that controls training records and certifications.	MySQL/PHP	7
NSOC	NSOC combined maintenance tracking tool (COTS) – tracks loose equipment	SQL Server	2244
<b><i>NBL</i></b>			
Db_dr_system	NBL Discrepancy Reporting (DR) database	MySQL/PHP	59
DOR	Daily Operations Report (DOR) RUN summary tracks information related to NBL events	MySQL/PHP	10
TRR_System	NBL Test Readiness Review database	MySQL/PHP	0.6
FacilityAccessData	List of personnel approved to have access to the NBL pool deck.	SQL Server	8
NBL Parts	NBL Imaint – maintenance tracking tool (COTS product) – provides parts tracking	SQL Server	258

NBLDataBase2003	Diver log – Logs the dive times for all underwater activities.	SQL Server	106
NBL LSS	Scuba equipment maintenance database	SQL Server	34
NBL Critical Memo database	Contains critical memos used to document changes that have been approved but not yet incorporated into the formal documentation	Access	2.14
Diver Database	Contains diver access certifications	Access	1000
NBL NSAR database	NBL Safety Acceptance and Review database – repository of all previously-delivered NSAR packages	Access	1.03
NBL SEC	List of all System Entry Control (SEC) documents used to enter critical systems at the NBL.	Microsoft File Structure	1000
NBLiMaint	NBL i-Maint (COTS) – Maintenance tracking tool for NBL Systems.	SQL Server	445
Intralink – NBL	ProE and AutoCAD drawings	Oracle	25,000
db_findings	NBL Audit Database. The database stores all actions and findings from previous audits of the NBL.	MySQL/PHP	0.02
NBL_CR	NBL Change Request Database	Microsoft File Structure	1000
Rigging Database	Critical Lift database stores a list of all approved critical lifts and the associated documentation required for the critical lift package.	Excel	2600
<b><i>SVMF</i></b>			
db_dr_system_svmf	SVMF Discrepancy Reporting (DR) database	MySQL/PHP	9
TRR Database	TRR database – tracks the status of SVMF TRRs	Excel	4
SVMF IMS	SVMF i-Maint (COTS) – inventory tracking tool	SQL Server	225
OCC Metrics	Database used by OCC to compile its metrics	Access	25
Intralink – SVMF	ProE and AutoCAD drawings	Oracle	30,000
CR database	Change Request database	Access	1.29



1. DRD Title  Workforce Reports	2. Date of current version  1/14/10	3. DRL Line Item No.  DRD-NSOC-38	RFP/Contract No.  NNJ09040809R
4. Use:  This information will be used in Contractor performance evaluation.			5. DRD Category:  <input type="checkbox"/> Technical <input checked="" type="checkbox"/> Administrative <input type="checkbox"/> SR&QA
6. References:			7. Interrelationships:  SOW 2.1

## 8. Preparation Information:

- a. Data Type: 2
- b. Scope: The reports provide workforce data by geographic location. There are two types of reports:
  - i. Monthly Workforce Report by location,
  - ii. As Requested Workforce Report.
- c. Content: The monthly workforce report should provide Equivalent Personnel (EPs) by location, specifically on or off site (JSC), and by State for workforce outside of the Clear Lake area. The data should be reconcilable to other financial deliverables. The content of the As Requested Workforce Report will vary based on specific direction provided by NASA Headquarters to support congressional inquiries. Its most common form is an annual request to provide workforce by zip code.
- d. Format: Specific formatting to be tailored by NASA and the Contractor.
- e. Distribution: Per Contracting Officer's letter.
- f. Submission:
  - i. Initial: 10 business days after the end of the first month.
  - ii. Final: N/A
  - iii. Approval: N/A
  - iv. Frequency:
    - (1) Monthly Workforce Report: Monthly, no later than the 10th business day after the close of the accounting period.
    - (2) As Requested Workforce Report: As directed and with the FY Operating Plan and PPBE.
- g. Maintenance: Revisions shall be incorporated by change page or complete reissue.

1. DRD Title  NF533M Cost Reporting with Supplemental Customer Cost Reporting	2. Date of current version 11/17/2009	3. DRL Line Item No. DRD-NSOC-39	RFP/Contract No.  NNJ09040809R
4. Use:  To provide Contractor Cost Reporting. The NASA Form 533 (NF533) reports provide data necessary for the following: <ol style="list-style-type: none"> <li>Projecting costs and hours to ensure that dollar and labor resources realistically support project and program schedules.</li> <li>Evaluating Contractors' actual cost and fee data in relation to negotiated contract value, estimated costs, and budget forecast data.</li> <li>Planning, monitoring, and controlling project and program resources.</li> <li>Accruing cost in NASA's accounting system, providing program and functional management information, and resulting in liabilities reflected on the financial statements.</li> </ol> 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. NPR 9501.2D, NASA Contractor Financial Management Reporting, identifies the cost reporting requirements for a contract.			5. DRD Category: <input type="checkbox"/> Technical <input checked="" type="checkbox"/> Administrative <input type="checkbox"/> SR&QA
6. References: <ol style="list-style-type: none"> <li>NFS 1852.242-73, NASA Contractor Financial Management Reporting</li> <li>NPD 9501.1H, NASA Contractor Financial Management Reporting System</li> <li>NPR 9501.2D, NASA Contractor Financial Management Reporting</li> </ol>			7. Interrelationships:  SOW 2.1

#### 8. Preparation Information:

The financial management reports consist of 2 parts: the 533 reporting and a more detailed Customer Cost Report for use by the organization for understanding the 533 totals.

A 533 at the 2nd WBS level shall be submitted for the entire contract.

The NASA Form 533 (NF533) reports provide data necessary for the following:

- Projecting costs and hours to ensure that dollar and labor resources realistically support project and program schedules.
- Evaluating contractors' actual cost and fee data in relation to negotiated contract value, estimated costs, and budget forecast data.
- Planning, monitoring, and controlling project and program resources.
- Accruing cost in NASA's accounting system, providing program and functional management information, and resulting in liabilities reflected on the 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) 9501.2D entitled "NASA Contractor Financial Management Reporting," or its most current revision, identifies the cost reporting requirements for a contract.

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 follow:

#### Cost Elements

*Labor*

#### Definitions

Reported to NASA as hours are incurred.

<i>Equipment &amp; Materials (commercial off the shelf)</i>	Generally reported to NASA when received and accepted by the contractor.
<i>Manufactured Equipment</i>	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.
<i>Leases</i>	Reported to NASA using a proration over the life of the lease.
<i>Travel</i>	Reported to NASA as costs are incurred.
<i>Subcontracts</i>	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 subdivisions 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 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 Center Deputy Chief Financial Officer (Finance).
<i>Unfilled Orders</i>	Reported as the difference between the cumulative cost incurred to date and amounts obligated to suppliers and subcontractors.
<i>Fee</i>	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. 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.
<i>Prompt Payment Discounts</i>	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 NF533 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 the NF533.

The due dates for the NF533M report is outlined in Chapter 3 of NPR 9501.2D. The following is a summary of the NF533 due date requirement.

NF533 Report  
NF533M

Due Date  
Due not later than 10 working days following the close of the contractor's monthly accounting period.

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.

Uncompensated overtime hours worked should be reported on NF533 reports as a separate line item or in the footnotes.

An initial NF533 report is required in the file format detailed below, to be used as a baseline for the life of the contract. The initial (baseline) report shall be submitted by the contractor within 30 days after authorization to proceed has been granted. 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 shall begin no later than 30 days after the incurrence of cost.

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 report, shall be based on the most current and reliable information available.

Prior period cost adjustments should be reported in column 7a and 7c of NF533M with a footnote discussing the reasons for and amounts of the adjustments.

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.

Customer Cost Reporting Supplement:

Supplemental detailed financial reporting shall include data at the Program's Fund Code Levels provided by NASA. This data shall include monthly actuals, current fiscal year estimates by month, and next fiscal year total estimate to complete. The report shall include cost and hours by NASAs equivalent persons of 2080 hours available per year.

Detailed financial reporting allocated spreadsheet shall include a report showing data summed at the 3rd Level WBS, for all designated fund codes (including SSP, ISS, and multiple Cx codes where appropriate). Special reporting requirements for other programs may be required agreed to by NASA and the contractor. This could include the fully allocated costs per fund code (or color of money) for all constellation/exploration projects. Additionally, a report showing allocation of data at the Fund Code Level shall be included.

This format shall report supporting details to the 533 submittals.

Detailed financial reporting Part B shall include data for total projects and each project CR and total delivery orders and each delivery order issued. This data shall include monthly planned and actual expenditures, cumulative fiscal year costs, fiscal year estimate to complete, overall estimate to complete, and total cost to complete. The NBL facility projects, NBL mockup projects, and SVMF data shall be provided in separate tables, and separated by fund code. The data shall be provided in excel format, unless otherwise agreed to by the customer.

All data is to be provided in electronic format that is easily manipulated by the customer.

Alternative formats may be proposed, and implemented upon acceptance by the customer.

#### Electronic NF533 Requirement

In addition to submitting the NF533M or NF533Q in a hardcopy format, the contractor, upon request, shall submit the NF533 electronically by the same due date as the hardcopy. 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 hardcopy.

<u>Data Element</u>	<u>Description</u>
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)
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 will also contain detail information for each Reporting Category (RC). A Reporting Category correlates to a task order, delivery order, or Work Breakdown Structure (WBS) and is the level at which cost is reported. Each RC can have Sub-Reporting Category line items (detailed cost elements) that add up to a RC. **The Contractor is required to coordinate with the NASA Resource Analyst assigned to the contract in order to establish and maintain the Reporting Categories the contractor shall use to comply with this data requirement.** The chart below describes the data elements to be included in this section of the flat file

(see attached Agency Defined File Format for specific layout details).

<u>Data Element Name</u>	<u>Description</u>
Reporting Category (RC)	Task, Delivery 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 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 (8c)	Balance of contract for the remaining estimate to complete for each RC (column 8c on NF533)
Contractor Estimate (9a)	Contractor estimate for the total estimate to complete entire scope of contract for each RC (column 9a on NF533)
Contract Value (9b)	Contract value based upon contract modifications for each RC (column 9b on NF533)
Unfilled orders outstanding (10)	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

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 in the attached Agency Defined File Format document.

#### Distribution:

LF6 Cost Accounting (1 hardcopy)  
 BH3 Contracting Specialist; Michael Duckworth (1 hardcopy)  
 \_\_\_\_\_ Budget/Program Analyst (1 hardcopy)  
 EP Technical; Rich Schoenberg (1 hardcopy)  
 \_X\_ E-Mail Account; [michael.w.duckworth@nasa.gov](mailto:michael.w.duckworth@nasa.gov) (1 electronic copy)

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.

**MACFPS001\_NAS00-0001\_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

## 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	Formt
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
Cost Unit of Measure	Cost Unit of Measure (SIR2047)	Submitted with CONTRACTOR data	Required	Required	COST_UOM	50	51	2	CHAR



CCR Extension Data Element	Description	Contractor Initial Data Mapping	NF 533 Required/ Optional	OTHER CCR Required/ Optional	Field Name	St Pos	EndPos	Len	Formt
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 HR/WYE (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 the prior month. (CR8197)				GT_COST_PLANNED_MONTH	110	122	13	CURRENCY (2)

CCR Extension Data Element	Description	Contractor Initial Data Mapping	NF 533 Required/ Optional	OTHER CCR Required/ Optional	Field Name	St Pos	EndPos	Len	Formt
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 HR/WYE (8a)	The Grand Total Contract Estimated Hours for first upcoming month, or Current Month Estimate for HR/WYE.	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 complete (CR 8197)				GT_BALANCE_CONTRACT	185	197	13	CURRENCY (2)

CCR Extension Data Element	Description	Contractor Initial Data Mapping	NF 533 Required/ Optional	OTHER CCR Required/ Optional	Field Name	St Pos	EndPos	Len	Formt
	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)

## 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
<b>CCR DETAIL LINE ITEMS:</b>									
Record Type	'DM' for Monthly column 7a Detail; 'DQ' for ITD Column 7c Detail	"RD" 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	Estimated hours for first upcoming month for given category. Will only be needed if	Line item field—submitted with	Optional unless Required by	Optional unless Required by	HRWYE_CUR_MONTH_EST	102	111	10	NUMERIC (1)



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
Estimate (8a)	labor hours are required to be submitted electronically per contract.	CONTRACTOR data	contract for WYE calculation	contract for WYE calculation					
Next Month Estimated Cost (8b)	Estimated costs for second upcoming month for given category.	Line item field—submitted with CONTRACTOR data	Required unless not part of Contract scope	Required unless not part of Contract scope	NEXT_MONTH_EC	112	124	13	CURRENCY (2)
	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 "X" 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

### Sub-Reporting Category Line Items – Repeating Segment

Field Name	Start Pos	End Pos	Length	Format	Variable Repetition (2,*,+,n-n)	Description
SUB_RECORD_TYPE	1	2	2	CHAR		'SM' for Monthly column 7a Detail; 'SQ' for ITD column Detail
SUB_REP_CAT	3	26	24	CHAR		Reporting Category
SUB_COST_INCUR_MONTH	27	39	13	CURRENCY (2)		Prior month incurred costs (Actuals) for given category.
SUB_HRWYE_INCUR_MONTH	40	49	10	NUMERIC (1)		Prior month incurred hours worked (Actuals) for given category.
SUB_COST_PLANNED_MONTH	50	62	13	CURRENCY (2)		Contract Prior Month Planned Dollars Column (7b) reports planned costs for the prior month.
SUB_CUR_COST_INCUR_ITD	63	75	13	CURRENCY (2)		Contract Cost Dollars Column (7c) which represents Contract Cost Inception to Date.
SUB_COST_PLANNED_ITD	76	88	13	CURRENCY (2)		Contract Planned Cost Dollars Column (7d) which represents Planned Contract Cost Inception to Date.
SUB_CUR_MONTH_EC	89	101	13	CURRENCY (2)		Estimated costs for first upcoming month for given category (8a).
SUB_HRWYE_CUR_MONTH_EST	102	111	10	NUMERIC (1)		Estimated hours for first upcoming month for given category. Will only be needed if labor hours are required to be submitted electronically per contract (8a).
SUB_NEXT_MONTH_EC	112	124	13	CURRENCY (2)		Estimated costs for second upcoming month for given category (8b).
SUB_BALANCE_CONTRACT	125	137	13	CURRENCY (2)		Balance of Contract for the remaining estimate to complete (8c).
SUB_CONTRACTOR_ESTIMATE	138	150	13	CURRENCY (2)		Contractor Estimate for the total estimate to complete entire scope of contract (9a).
SUB_CONTRACT_VALUE	151	163	13	CURRENCY (2)		Contract Value based upon Contract Modifications (9b).
SUB_UNFILLED_ORDERS	164	176	13	CURRENCY (2)		Unfilled Orders Outstanding at end of reporting period.
REPORTING_LEVEL	177	206	30	CHAR		Used by SAP to determine Reporting Category Level (1.1.2.2.1) (CR 8197).
REPORTING_CAT_INDICATOR	207	207	1	CHAR		Fill in an "X" 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)

## Example File Format

**533 Agency FILE RECORD LAYOUT (Element of Cost Detail – Repeating Segment (CR8197))**

Field Name	Start Pos	End Pos	Length	Format	Variable Repetition (? , * , + , n - n)	Description
RECORD_TYPE	1	2	2	CHAR		'EM' for Monthly column 7a Detail; 'EQ' for ITD column Detail
EOC REP CAT	3	26	24	CHAR		Reporting Category
EOC_COST_INCUR_MONTH	27	39	13	CURRENCY (2)		Prior month incurred costs (Actuals) for given category.
EOC_HRWYE_INCUR_MONTH	40	49	10	NUMERIC (1)		Prior month incurred hours worked (Actuals) for given category.
EOC_COST_PLANNED_MONTH	50	62	13	CURRENCY (2)		Contract Prior Month Planned Dollars Column (7b) reports planned costs for the prior month.
EOC_CUR_COST_INCUR_ITD	63	75	13	CURRENCY (2)		Contract Cost Dollars Column (7c) which represents Contract Cost Inception to Date.
EOC_COST_PLANNED_ITD	76	88	13	CURRENCY (2)		Contract Planned Cost Dollars Column (7d) which represents Planned Contract Cost Inception to Date.
EOC_CUR_MONTH_EC	89	101	13	CURRENCY (2)		Estimated costs for first upcoming month for given category (8a).
EOC_HRWYE_CUR_MONTH_EST	102	111	10	NUMERIC (1)		Estimated hours for first upcoming month for given category. Will only be needed if labor hours are required to be submitted electronically per contract (8a).
EOC_NEXT_MONTH_EC	112	124	13	CURRENCY (2)		Estimated costs for second upcoming month for given category (8b).
EOC_BALANCE_CONTRACT	125	137	13	CURRENCY (2)		Balance of Contract for the remaining estimate to complete (8c).
EOC_CONTRACTOR_ESTIMATE	138	150	13	CURRENCY (2)		Contractor Estimate for the total estimate to complete entire scope of contract (9a).
EOC_CONTRACT_VALUE	151	163	13	CURRENCY (2)		Contract Value based upon Contract Modifications (9b).
EOC_UNFILLED_ORDERS	164	176	13	CURRENCY (2)		Unfilled Orders Outstanding at end of reporting period.
REPORTING_LEVEL	177	206	30	CHAR		Used by SAP to determine Reporting Category Level (1.1.2.2.1) (CR 8197).
REPORTING_CAT_INDICATOR	207	207	1	CHAR		Fill in an "X" 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)



## 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
<b>TRAILER:</b>									
Record Type	Used by eGate to determine record type	"TL" 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



1. DRD Title  Wage/Salary and Fringe Benefit Data	2. Date of current version 11/17/2009	3. DRL Line Item No. DRD-NSOC-40	RFP/Contract No.  NNJ09040809R
4. Use:  The Wage/Salary and Fringe Benefit Data shall be used by the NASA Contracting Officer and the Contract Labor Relations Office to provide the necessary data for submittal of Standard Form (SF) 98, Notice of Intention to Make a Service Contract and Response to Notice, to the Department of Labor, and to assist in the monitoring of Service Contract Act compliance.			5. DRD Category:  <input type="checkbox"/> Technical <input checked="" type="checkbox"/> Administrative <input type="checkbox"/> SR&QA
6. References:  FAR 52.222-41, Notice to the Government of Labor Disputes			7. Interrelationships:  SOW 2.1

## 8. Preparation Information:

- a. Data Type: 2
- b. 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. In accordance with FAR regulations 22.1007 and 22.1008, the Contracting Officer is required to submit an electronic form 98 to the Department of Labor, Wage and Hour Division.
- c. 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. Three hardcopies of each CBA are required if organized labor is represented on your contract.
- d. Format: The Wage/Salary and Fringe Benefit Data shall be in a format substantially the same as enclosed with this DRD. (Forms 2, 3, and 3A enclosed).
- e. Distribution: Per Contracting Officer's letter.
- f. Submission:
  - i. Initial: Contract start + 30 days.
  - ii. Final: N/A
  - iii. Approval: N/A
  - iv. Frequency: Annually, 90 calendar days prior to the anniversary date of the contract.
- g. Maintenance: Revisions shall be incorporated by change page or complete reissue.

## FORM 2

WORK SHEET FOR E-98 DATA  
WAGE RATE INFORMATION

<u>CONTRACTORS LABOR CLASSIFICATION</u>	<u>WAGE DETERMINATION CLASSIFICATION</u>	<u>EXEMPT OR NONEXEMPT</u>	<u>UNION OR NONUNION</u>	<u>CURRENT HOURLY RATE</u>	<u>MYE NO OF EMPLOYEES</u>
Illustration of required data:					
Project Manager	Not Required	E	N	\$25.00	1
Supervisor	Not Required	E	N	\$20.00	1
Electrical Engineer	Not Required	E	N	\$16.50 - \$20.00	3
Technician, Jr	Elect Tech Main 1	N	U	\$12.78 - \$15.50	12
Technician, Sr	Elect Tech Main II	N	U	\$18.20 - \$20.00	4
Secretary	Secretary I	N	N	\$11.11 - \$12.50	2
File Clerk	General Clerk II	N	N	\$8.29	1
Clerical Data Entry	Word Processor I	N	N	\$9.25 - \$10.90	3

Submit data in the above-illustrated format for all labor classifications used, or planned to be used, on this contract.

All contractor labor classifications shall be matched to wage determination classes listed in CBA's represented classes or classes shown in WD 2005-2516 for nonrepresented classes.

<u>CONTRACTORS LABOR CLASSIFICATION</u>	<u>WAGE DETERMINATION CLASSIFICATION</u>	<u>EXEMPT OR NONEXEMPT</u>	<u>UNION OR NONUNION</u>	<u>CURRENT HOURLY RATE</u>	<u>MYE NO OF EMPLOYEES</u>
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FORM 3

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		

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

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

1. DRD Title  Mockup and System Data Status Report	2. Date of current version 11/17/2009	3. DRL Line Item No. DRD-NSOC-41	RFP/Contract No.  NNJ09040809R
4. Use:  The data packages will be used to evaluate the status on mockup and system critical documents and analyses.			5. DRD Category: <input checked="" type="checkbox"/> Technical <input type="checkbox"/> Administrative <input type="checkbox"/> SR&QA
6. References:			7. Interrelationships:  SOW 3.2

8. Preparation Information:

- a. Data Type: 2
- b. Scope: Mockup and System Data Status shall be split into four sections. The first two sections will cover SVMF Mockup data and system data. The second half will cover NBL mockup data and system data. The list of mockups and systems are provided in Attachment J-20, Mockups and Systems List.
- c. Content: For each item report the location of the data. If the data is not all available, provide a percentage of data that is available.
  1. SVMF and NBL Mockup Data shall include, but not be limited to:
    - i. As-built drawings
    - ii. Structural analysis
    - iii. Tip over analysis
    - iv. Certificate of Compliance (Base Material, Fasteners, Lifting Equipment, Casters)
    - v. Weld inspections (if applicable).
    - vi. NBL Robotics Systems Approved Payloads List (if applicable).
    - vii. Live Hazards
    - viii. Critical lift package (SLOA, Hazard Analysis, Checklist, Lift Diagram)
    - ix. List of approved interfaces to stands and other mockups.
    - x. Hazard Analysis
    - xi. Acceptance Test Procedures
  2. SVMF and NBL System Data shall include, but not be limited to:
    - i. As-built drawings including electrical and fluid
    - ii. System software source code
    - iii. Interface Control Documents (ICDs)
    - iv. Operating Procedures (Include COTS Manuals)
    - v. Maintenance Procedures (Include COTS Manuals)
    - vi. Failure Modes and Effects Analysis (FMEA)
    - vii. Hazard Analysis
    - viii. Acceptance Test Procedures
- d. Format: Contractor format acceptable, unless otherwise directed by NASA.
- e. Distribution: Per Contracting Officer's letter.
- f. Submission:
  - i. Initial: Contract start + 90 days
  - ii. Final: Due at contract completion
  - iii. Approval: 90 calendar days from contract start. N/A
  - iv. Frequency: Annual, Delivered at the beginning of the calendar year.
- g. Maintenance: Revisions shall be incorporated by change page or complete reissue.



1. DRD Title  Action Items	2. Date of current version  12/4/2009	3. DRL Line Item No.  DRD-NSOC-42	RFP/Contract No.  NNJ09040809R
4. Use:  The NSOC Action Tracking System will ensure that all open actions are tracked, statused and closed in a timely manner.			5. DRD Category:  <input checked="" type="checkbox"/> Technical <input type="checkbox"/> Administrative <input type="checkbox"/> SR&QA
6. References:			7. Interrelationships:  SOW 2.0

8. Preparation Information:

a. Data Type: ATS - 1; Plan - 1; Reports – 2

b. Scope: This DRD is comprised of 3 elements, the: Action Tracking System (ATS); Action Item Plan; and reports. The ATS is a software tool used to track action items. The Plan describes the processes that will be used to ensure that NBL and SVMF actions are tracked and closed per the priorities set by NASA and NSOC management. It also describes how to operate the software. Reports provide action item status.

c. Content:

ATS:

1. The Action Tracking System (ATS) shall provide the capability to track open actions from audits, investigations, hardware & software reviews, SRs, TRRs, inspections and actions from management meetings (eg. 7:30 morning tag up). ATS shall also provide the capability to track other deliverables (eg. Annual document reviews), as requested by NASA, without modifying the software code.
2. The ATS shall provide the capability to record at least the following data for each action item:
  - A. Date when action was assigned
  - B. Name of submitter
  - C. Concurrence by NASA or NSOC management to accept the action
  - D. Activity, event or review that generated the action
  - E. Criticality level of action (defined below)
  - F. Person responsible to track and close action (may or may not be the person doing the work)
  - G. Facility impacted (eg. NBL, SVMF, NSOC)
  - H. Estimated Completion Date (ECD) (If date changes, the old date will be maintained in the system with the explanation of date change)
  - I. Status/comments
  - J. Percent complete of objectives to close out action
  - K. Closing rationale
  - L. Person who approved closure
1. The ATS and all action item status reports shall utilize the following action item Criticality Levels:
  - i. Level I: An open action that if not completed in the next 48 hours could cause harm to users/equipment or shut down the facility (work stoppage).
  - ii. Level II: An open action deemed to be critical for the safety and operation of the facility by NASA or NSOC Management.
  - iii. Level III: All other actions that need to be tracked as determined by NASA or NSOC Management.
- ii. The ATS shall receive, sort, track, status, disposition and report status of actions.
- iii. The ATS shall provide the capability to sort by all fields in the database.

- iv. The ATS shall be developed in accordance with NBL and SVMF Database Management Plan and Databases (DRD-NSOC-37)

Plan: The Action Item Plan shall:

1. Discuss the processes and procedures that will be used to track open actions from audits, investigations, hardware & software reviews, SRs, TRRs, inspections, actions from management meetings (eg. 7:30 morning tag up) and other deliverables (eg. Annual document reviews) requested by NASA.
2. Describe the processes that will be used to ensure that NBL and SVMF actions are tracked and closed per the priorities set by NASA and NSOC management. Specifically describe the processes for adding, deleting, updating and closing actions in the ATS.
3. Ensure that the rationale for action item closure is provided and that the NASA or contractor with the authority to close the action has reviewed and has agreed with the rationale for closure. If there is an additional action, such as ensuring the TRR form is signed stating all actions closed, then the Contractor shall not close the action until that activity has been completed.
4. Describe how to operate the ATS software.

Reports:

1. Weekly: Once a week, or as requested by NASA, the Contractor shall review all open Level I and II actions with NASA. All fields in the database for these actions must be up to date.
2. Monthly: Once a month, or as requested by NASA, the Contractor shall review all open actions with NASA. All fields in the database for these actions must be up to date.

- d. Format: Contractor discretion, unless otherwise specified or requested by NASA.
- e. Distribution: Per Contracting Officer's letter.
- f. Submission:

ATS:

- i. Initial: Contract start + 65 days.
- ii. Final: Contract start + 95 days.
- iii. Approval: Contract start + 120 days.
- iv. Frequency: N/A

Plan:

- i. Initial: Contract start + 30 days.
- ii. Final: Contract start + 60 days.
- iii. Approval: Contract start + 90 days.
- iv. Frequency: Contract start + 1 year. After that as required.

Reports:

- i. Initial: Contract start + 120 days.
- ii. Final: N/A
- iii. Approval: N/A.
- iv. Frequency: Weekly, monthly and as requested.

- g. Maintenance: Revisions shall be incorporated by change page or complete reissue.



1. DRD Title  Information Technology (IT) System Security Plan (SSP)	2. Date of current version  12/4/09	3. DRL Line Item No.  DRD-NSOC-43	RFP/Contract No.  NNJ09040809R
4. Use:  To provide the Contractor's compliance with the IT security requirements in NFS 1852-204-76 (as modified by NASA Procurement Information Circular 08-09, dated May 1, 2008) and any additions/augmentations described in NPR 2810.1, Security of Information Technology. This document will be used as part of the NASA IT security certification and accreditation process and to identify IT system inventories and appropriate Contractor IT security points of contact.			5. DRD Category:  <input type="checkbox"/> Technical <input checked="" type="checkbox"/> Administrative <input type="checkbox"/> SR&QA
6. References: a. FIPS 200, Minimum Security Requirements for Federal Information and Information Systems b. FIPS 199, Standards for Security Categorization of Federal Information and Information Systems c. NFS 1852.204-76, Security Requirements for Unclassified Information Technology Resources (May 2007) (as modified by NASA Procurement Information Circular 08-09, dated May 1, 2008) d. NPR 2810.1, Security of Information Technology e. NIST SP 800-18, Guide for Developing Security Plans for Federal Information Systems f. NIST SP 800-30, Risk Management Guide for Information Technology Systems g. NIST SP 800-34, Contingency Planning Guide for Information Technology Systems h. NIST SP 800-61, Computer Security Incident Handling Guide i. NIST SP 800-37, Guide for the Security Certification and Accreditation of Federal Information Systems j. NIST SP 800-53, Recommended Security Controls for Federal Information Systems k. NIST SP 800-53A, Draft Guide for accessing the Security Controls in Federal Information Systems			7. Interrelationships:  SOW 2.9

## 8. Preparation Information:

- a. Data Type: Plan – 1; Reports – 2
- b. Scope: The Information Technology (IT) System Security Plan includes a description of the IT system and its implementation of security controls, risk assessment, self assessment of security plans, and contingency plan, in compliance with NIST SP 800-18 and NIST SP 800-53.
- c. Content: The Information Technology (IT) System Security Plan shall include the following:
  - i. The IT System Security Plan shall be written in accordance with NASA FAR 1852.204-76 (as modified by NASA Procurement Information Circular 08-09, dated May 1, 2008) and NIST SP 800-18, and following the process defined in NIST SP 800-37. It should also address all the required security controls defined in the latest revision of the NIST SP 800-53 based upon the security categorization (per FIPS 199).
  - ii. Risk Assessment: The IT Risk Assessment report shall be written in accordance with NASA FAR 1852.204-76 (as modified by NASA Procurement Information Circular 08-09, dated May 1, 2008) and following the guidelines of NIST SP 800-30.
  - iii. Self Assessment: The self-assessment shall be conducted and provided in the format defined by NIST SP 800-53A
  - iv. Contingency Plan: The IT Contingency Plan shall be written in accordance with NASA FAR 1852.204-76 and following the guidelines of NIST SP 800-34.
- d. Format: Contractor format is acceptable using guidelines in section 8c.
- e. Distribution: Per Contracting Officer's letter.

- f. Submission: The IT SSP shall be reviewed and updated on a continual basis and after any significant changes to the IT System or contractor personnel point of contact (POC) information. Updated copies shall be submitted upon any significant changes or every three (3) years, whichever comes first.
  - i. Plan Initial: Contract award + 27 days.
  - ii. Plan Final: Contract award + 48 days.
  - iii. Plan Approval: Contract start + 37 days.
  - iv. Plan Frequency: See Above
- g. Maintenance: Revisions shall be incorporated by change page or complete reissue.

1. DRD Title  Reprocurement Data Package	2. Date of current version  <b>01/12/15</b>	3. DRL Line Item No.  DRD-NSOC-44	RFP/Contract No.  NNJ09040809R/ <b>NNJ10HD35C</b>
4. Use:  Provide content and format requirements for delivery to NASA of all analytical models, tools, supporting documentation, equipment, data items and resource/cost information used to perform future reprocurement activities. In the event of a competitive solicitation for a follow-on effort, NASA may provide non-proprietary historical information such as average composite direct labor rates and approximate seniority profiles of incumbent personnel to all interested parties in order to increase the probability of realistic pricing. The Government does not intend to disclose any contractor proprietary information. Data contained in Part 8.c.5. may similarly be disclosed for reprocurement purposes.			5. DRD Category:  <input type="checkbox"/> Technical <input checked="" type="checkbox"/> Administrative <input type="checkbox"/> SR&QA
6. References:			7. Interrelationships:  None

## 8. Preparation Information:

- a. Data Type: 2
- b. Scope: Analytical models, unique tools, supporting documentation, equipment, and resource/cost information shall be submitted in accordance with this DRD.
- c. Content: Data package containing the following:
  1. Labor resources:
    - i. List of all direct labor skills by labor category, segregated by current work breakdown structure (WBS)
    - ii. An 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
    - iii. Current annual average wage rates for each labor category and when these wages were last adjusted for escalation. Also indicate whether any adjustments are projected to be made prior to contract expiration
    - iv. The number of FTEs (Full Time Equivalents) and the estimated number of productive hours for each labor category currently on contract, segregated by current WBS.
    - v. Seniority level of all skills on the current contract
  2. Non-labor resources:
    - i. List of all materials, equipment, travel, supplies, etc., and the incurred annual cost by WBS. Only include significant items that are used to perform the technical requirements of this contract.
    - ii. Provide a discussion associated with the major items identified above, such as the materials estimate includes a prompt payment discount of TBD% due to large volume discounts you have negotiated with your vendors.
  3. The projected liability cost associated with unused accrued paid leave associated with non-exempt personnel. Provide a copy of any Collective Bargaining Agreements in place and a current status of any upcoming negotiations with a union.
  4. Technical and Process Information:
    - i. DRD-NSOC-02, Management Plan
    - ii. DRD-NSOC-03, Configuration Management Plan
    - iii. DRD-NSOC-11, Government Property Management Plan
    - iv. DRD-NSOC-28, Information Technology (IT) Plan and Reports
    - v. DRD-NSOC-29, Technical Metrics Plan and Reports
  5. External Customer Information  
The Government intends to facilitate continued access to NSOC facilities by external customers who have previously utilized NSOC facilities under this contract pursuant to clause H.17, Non-

Government Use of NSOC Facilities. To facilitate future access to NSOC facilities under follow-on contracts, as part of this re-procurement data package, upon the Contracting Officer's request, the contractor is required to deliver to the Government a complete list of all external customers who have used NSOC Facilities under the authority of clause H.17. The list of external customers should include the end customer, not just the company who contracted with the Prime Contractor or via the prime's subcontractor. The contractor shall request this information on NASA's behalf and shall ensure adequate information is available to meet NASA acquisition objectives and protect the interest of all of industry and commercial partners. The contractor should also shall provide an executed schedule of External Customer activities for the preceding twelve months. For each Annex to the Umbrella SAA, the contractor should shall identify the skill sets utilized and the total number of labor hours per skill set per year. The Government intends to make the external customer list, skill sets and number of labor hours, SAA's, and Annex summaries available to interested parties during the follow-on procurement activity.

6. Additional data, as requested by Contracting Officer
  - d. Format: Electronic format of all submissions shall be compatible with ODIN desktop standard applications or other ISS standard tools. Organizational format of the supporting documentation shall be the Contractor's format.
  - e. Distribution: Per Contracting Officer's letter.
  - f. Submission:
    - i. Initial: Deliverable at the Contracting Officer's direction
    - ii. Final: N/A
    - iii. Approval: N/A
    - iv. Frequency: As required
  - g. Maintenance: All models/tools and data items shall be maintained electronically. All documentation developed to support the use of each model/tool and data items shall also be maintained electronically. Both the models and the supporting documentation shall be updated as necessary to perform the assessments for which they were developed.

# Attachment J-11

## Award/Incentive Fee Plan

## **I. INTRODUCTION**

In accordance with the provisions of the Federal Acquisition Regulation (FAR), NASA FAR Supplement (NFS), the NASA Award Fee Handbook, and JSC Implementation, an award fee evaluation procedure is hereby established for determination of award fees payable under this contract. The fee arrangement outlined in this plan has been established to motivate the contractor to strive for excellence in the quality and timeliness of performance, subcontracting goals, safety, and cost. The payment of any award fee is contingent upon compliance with contractual requirements and performance to the degree specified in Appendix 1.

The Contractor's performance will be evaluated by the Government in accordance with the procedures set forth below, at the expiration of each period specified in Appendix 3. The evaluation to be performed by the Government will be based on the Government's assessment of the Contractor's accomplishment of the various areas of work covered by the Statement of Work (SOW), in accordance with the criteria, weightings, procedures, and other provisions set forth below.

Performance determinations will be made at the end of each 6-month evaluation period as shown in Appendix 3.

## **II. ORGANIZATION STRUCTURE**

- A. Performance Evaluation Board (PEB): A PEB, comprised of selected NASA technical and administrative personnel, 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. The Board, at the end of each evaluation period, will prepare a summary of the evaluations for review by the Fee Determination Official (FDO). This summary will include a recommendation to the FDO as the adjective rating and numerical score to be assigned for the Contractor's performance in the preceding evaluation period.
- B. 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. The FDO shall appoint the PEB Chairperson and members.

## **III. EVALUATION PROCEDURES**

- A. No later than 30 calendar days prior to the start of each evaluation period (for the first evaluation period, this shall be construed as 30 days prior to the end of the phase-in period), the Contractor may submit to the Contracting Officer (C.O.) recommended areas of emphasis (AOEs) and weightings for the ensuing evaluation period that are within the general factors listed in Section III of this plan. Consideration will be given to the Contractor's recommendations; however it is the Government's responsibility to establish the specific AOEs for each evaluation period.
- B. Prior to the start of each new six-month evaluation period (for the first evaluation period, this shall be construed as 20 days prior to the end of the phase-in period), the Contractor will be notified by the C.O. of the selected AOEs and weightings for that period. Emphasis will be directed at particular areas under the contract which appear to the Government to be deserving of special attention and will be used in judging the Contractor's performance. These AOEs will not necessarily cover the entire spectrum of performance that will be evaluated in determining award fee dollars earned. Other pertinent factors included under the contract and general factors bearing upon overall performance will be considered as the facts and circumstances of each period may require.
- C. The Contractor shall be apprised of a general assessment of performance at the mid-point of the period, and at such other times as may be deemed appropriate. The purpose of these meetings shall be to discuss any specific areas where the Contractor has excelled, and where future Contractor emphasis may be necessary.

- D. Promptly after the end of each six-month evaluation period, the PEB shall meet to consider all of the performance information it has obtained. At the meeting, the PEB will summarize its preliminary findings and recommendations in the Performance Evaluation Board Report (PEBR).
- E. At the PEB meeting, the contractor may provide a self-evaluation presentation (a copy of which shall be provided to the PEB) not to exceed 30 minutes in length.
- F. The Contractor may furnish a separate self-evaluation report on or before the fifth business day following the submission of the 533 report. These self-evaluation reports shall not exceed 20 pages in length per each evaluation period. The PEB will not submit its recommendation to the FDO until (1) the Contractor's self-evaluation report has been received and considered, or (2) the Contractor has provided written notification that a self-evaluation report will not be submitted, or (3) the deadline for its submission has expired.
- G. The PEB Chair will prepare the PEBR for the period and present the findings and recommendations to the FDO. The reports will include an adjective rating and a recommended performance score with supporting documentation.
- H. The Contractor will be notified of the PEB evaluation and recommended ratings and scores and will be provided copies of the PEBR. The Contractor may provide additional information for consideration by the FDO. Such information shall be delivered in writing to the C.O. within 5 calendar days of notification to the contractor of the recommended rating and score. The PEB Chair will in turn provide this additional information to the FDO.
- I. The FDO will consider the recommendations of the PEB, the PEBR, information provided by the Contractor, if any, and any other pertinent information in determining performance scores. The FDO's determination of the scores will be stated in a written Award Fee Determination.
- J. The FDO will not make a performance determination prior to the expiration of the 5 calendar day period prescribed above for Contractor submissions unless the Contractor has affirmatively indicated, in writing, that no further Contractor submission will be made.
- K. The Award Fee Determination will be provided to the Contractor by the C.O.

#### **IV. AWARD FEE EVALUATION CRITERIA AND WEIGHTING**

- A. In evaluating the performance of the Contractor, the Government will evaluate major elements of Contractor performance including performance and cost.
- B. The criteria for evaluation of Contractor performance for determination of award fee is defined below. The Government may unilaterally modify the award fee performance evaluation factors and performance evaluation areas applicable to the evaluation period. The C.O. shall notify the Contractor in writing of any such changes prior to the start of the relevant evaluation period.

##### **Evaluation Criteria**

##### **Weight**

##### **1. Performance and Compliance with Management, Technical, & Safety and Health Requirements**

**75 Percent**

Management and technical performance criterion includes all aspects of quality and schedule based on objective evidence demonstrating both technical and management performance. For technical performance, emphasis will be placed on the SOW performance standards, as well as continuous improvements and innovations that lead to increased safety, cost savings or improved operational efficiencies.

Compliance with Safety and Health Requirements criterion includes all aspects of safety and health and environmental compliance issues primarily based on objective evidence demonstrating performance.

##### **2. External Customers**

**15 Percent**

Criterion includes evaluation of how contractor is performing against external customer plan targets submitted in accordance with DRD-NSOC-06 as well as improvements to commercialize processes, procedures, and infrastructure to help people meet or exceed the overall external customers target for the life of the contract.

##### **3. Small Business Subcontracting Goal Performance**

**10 Percent**

The Subcontracting Goals criterion includes evaluation of the Contractor's success in achieving or surpassing the subcontracting goals specified in the contract.

- C. Notwithstanding any of the above, a major breach of safety or security, as defined by clause 1852.223-75 of this contract, may result in an award fee score of zero for the affected evaluation period.
- D. In order to earn any award fee, the Contractor must receive a numerical score of 50 or greater. Appendix 1 provides the performance level definition adjective ratings and corresponding numerical scores that will be used in evaluating performance. The numerical grade ranges corresponding to these adjective ratings and their conversion to total award fee earned are set forth in Appendix 2. Appendix 3 provides the distribution of the available maximum award fee for each evaluation period.



## APPENDIX 1 – EVALUATION DEFINITIONS

ADJECTIVE	DEFINITION	GRADE RANGE
Excellent	Contractor has exceeded almost all of the significant award-fee criteria and has met overall cost, schedule, and technical performance requirements of the contract as defined and measured against the criteria in the award-fee plan for the award-fee evaluation period.	91-100
Very Good	Contractor has exceeded many of the significant award-fee criteria and has met overall cost, schedule, and technical performance requirements of the contract as defined and measured against the criteria in the award-fee plan for the award-fee evaluation period.	76-90
Good	Contractor has exceeded some of the significant award-fee criteria and has met overall cost, schedule, and technical performance requirements of the contract as defined and measured against the criteria in the award-fee plan for the award-fee evaluation period.	51-75
Satisfactory	Contractor has met overall cost, schedule, and technical performance requirements of the contract as defined and measured against the criteria in the award-fee plan for the award-fee evaluation period.	50
Poor/ Unsatisfactory	Contractor has failed to meet overall cost, schedule, and technical performance requirements of the contract as defined and measured against the criteria in the award-fee plan for the award-fee evaluation period.	49 and below

## APPENDIX 2 – PERFORMANCE SCORE CONVERSION CHART

<i><b>Weighed Performance Score</b></i>		<b>Percentage of Available Award Fee</b>
100		<b>100%</b>
99		<b>99</b>
98		<b>98</b>
97		<b>97</b>
96	Excellent	<b>96</b>
95		<b>95</b>
94		<b>94</b>
93		<b>93</b>
92		<b>92</b>
91		<b>91</b>
90		<b>90</b>
89		<b>89</b>
88		<b>88</b>
87		<b>87</b>
86		<b>86</b>
85		<b>85</b>
84	Very Good	<b>84</b>
83		<b>83</b>
82		<b>82</b>
81		<b>81</b>
80		<b>80</b>
79		<b>79</b>
78		<b>78</b>
77		<b>77</b>
76		<b>76</b>
75		<b>75</b>
74		<b>74</b>
73		<b>73</b>
72		<b>72</b>
71		<b>71</b>
70		<b>70</b>
69		<b>69</b>
68		<b>68</b>
67		<b>67</b>
66		<b>66</b>
65		<b>65</b>
64	Good	<b>64</b>
63		<b>63</b>
62		<b>62</b>
61		<b>61</b>
60		<b>60</b>
59		<b>59</b>
58		<b>58</b>
57		<b>57</b>
56		<b>56</b>
55		<b>55</b>
54		<b>54</b>
53		<b>53</b>
52		<b>52</b>
51		<b>51</b>
50	Satisfactory	<b>50</b>
49 and below	Poor/Unsatisfactory	<b>0</b>

### APPENDIX 3 – AWARD FEE DISTRIBUTION

Evaluation Period	Estimated Baseline Award Fee Available	Estimated IDIQ Award Fee Available	Total Estimated Award Fee Available	Score	Earned Award Fee
<b>BASIC CONTRACT (if Options 1 &amp; 2 are not exercised):</b>	<b>Offeror fill-in</b>				
Period 1: October 1, 2010 – March 31, 2011					
Period 2: April 1, 2011 – September 30, 2011					
Period 3: October 1, 2011 – March 31, 2012					
Period 4: April 1, 2012 – September 30, 2012					
Period 5: October 1, 2012 – March 31, 2013					
Period 6: April 1, 2013 – September 30, 2013					
<b>Total Available Award Fee - Basic Contract</b>					
<b>if OPTION 1 is exercised the evaluation periods will be as follows:</b>					
Period 7: October 1, 2013 – March 31, 2014					
Period 8: April 1, 2014 – September 30, 2014					
<b>Total Available Award Fee - Option 1</b>					
<b>Total Award Fee - Base &amp; Option 1</b>					
<b>if OPTION 2 is exercised the evaluation periods will be as follows:</b>					
Period 9: October 1, 2014 – March 31, 2015					
Period 10: April 1, 2015 – September 30, 2015					
<b>Total Available Award Fee - Option 2</b>					
<b>Total Available Award Fee - Basic, Option 1 &amp; 2</b>					
<b>CONTRACT EXTENSION</b>					
Period 11: October 1, 2015 – March 31, 2016		\$TBD	\$TBD	TBD	\$TBD
Period 12: April 1, 2016 – September 30, 2016		\$TBD	\$TBD	TBD	\$TBD
Period 13: October 1, 2016 – March 31, 2017		\$TBD	\$TBD	TBD	\$TBD
Period 14: April 1, 2017 – September 30, 2017		\$TBD	\$TBD	TBD	\$TBD
<b>Total Available Award Fee - Base Extension</b>		\$TBD	\$TBD	TBD	\$TBD
<b>if EXTENSION OPTION 1 is exercised the evaluation periods will be as follows:</b>					
Period 15: October 1, 2017 – March 31, 2018		\$TBD	\$TBD	TBD	\$TBD
Period 16: April 1, 2018 – September 30, 2018		\$TBD	\$TBD	TBD	\$TBD
<b>Total Available Award Fee - Extension Option 1</b>		\$TBD	\$TBD	TBD	\$TBD
<b>Total Award Fee - Extension Base &amp; Extension Option 1</b>		\$TBD	\$TBD	TBD	\$TBD
<b>if EXTENSION OPTION 2 is exercised the evaluation periods will be as follows:</b>					
Period 17: October 1, 2018 – March 31, 2019		\$TBD	\$TBD	TBD	\$TBD
Period 18: April 1, 2019 – September 30, 2019		\$TBD	\$TBD	TBD	\$TBD
<b>Total Available Award Fee - Extension Option 2</b>		\$TBD	\$TBD	TBD	\$TBD
<b>Total Available Award Fee - Extension Base, Extension Option 1 &amp; 2</b>		\$TBD	\$TBD	TBD	\$TBD
<b>Total Available Award Fee - Basic, Option 1 &amp; 2, Extension Base, Extension Option 1 &amp; 2</b>		\$TBD	\$TBD	TBD	\$TBD

## V. INCENTIVE FEE

For each evaluation period specified in Appendix 3, the cost baseline plan is used to determine if there is a cost overrun or cost underrun. The negotiated target cost baseline plan will be established by spreading the total negotiated contract cost for each contract year across each of the 2 evaluation periods as agreed to by the Contracting Officer and the contractor. If an agreement on the negotiated cost baseline plan is not possible, the Contracting Officer will apprise the contractor of the Government-determined negotiated cost baseline plan.

**The incentive fee shall not be available for any given annual period identified in Appendix 3 unless the contractor's two coinciding 6-month award fee scores, when averaged, equal at least an 86 in contract year 1, or an 88 in subsequent contract years.** All incentive fee evaluations, with the exception of the last evaluation, will be interim evaluations. At the last evaluation, which is final, the Contractor's performance for the entire contract will be evaluated to determine total earned incentive fee.

The incentive fee shall not be awarded unless the Contractor's final average award fee score for the contract term equals at least a numerical score of 88.

The **Target Costs** for each year of this contract are:

Contract Year 1:

Contract Year 2:

Contract Year 3:

Contract Year 4:

Contract Year 5:

Extension Year 1:

Extension Year 2:

Extension Year 3: (If exercised)

Extension Year 4: (If exercised)

Annual	Cumulative
(b)	(4)

The share ratio for all five years of this effort is 85/15 (underrun) – 75/25 (overrun)

### INCENTIVE FEE AVAILABLE

	Minimum Dollars	Target Dollars	Maximum Dollars
10/01/10 - 9/30/11	\$0	(b)	(4)
10/01/11 - 9/30/12	\$0	(b)	(4)
10/01/12 - 9/30/13	\$0	(b)	(4)
10/01/13 - 9/30/14	\$0	(b)	(4)
10/01/14 - 9/30/15	\$0	(b)	(4)
10/01/15 - 9/30/16	\$0	(b)	(4)
10/01/16 - 9/30/17	\$0	(b)	(4)
10/01/17 - 9/30/18 (if exercised)	\$0	(b)	(4)
10/01/18 - 9/30/19 (if exercised)	\$0	(b)	(4)

# Attachment J-12

## On-site Installation Accountable Property

**(Complete listing can be found with the CS in electronic format)**

# Attachment J-12

## On-site Installation Accountable Property

**(Complete listing can be found with the CS in electronic format)**

# Attachment J-13

## Reserved

# Attachment J-14

## Floor Space

Floor Space Management: Per Section 3.6.2 Facility Manager of the SOW, NSOC will provide support for management of floor space. This includes approximately\* 300 people and 250,000 square feet of floor space.

Floor Space Availability: There are currently approximately 120 NSOC personnel housed onsite in Buildings 920L, 920N, 9N, and 59. Those numbers include personnel on different shifts who share workspace. It is expected that the expected 15,500 square feet of on-site office space will be available for use by NSOC, if needed.

\* Approximately means +/- 10%.



# Attachment J-15

## List of Facilities

**NSOC related assets/facilities are located in the following locations:**

- Lyndon B. Johnson Space Center (JSC) – Houston, TX
  - Building **9N**
  - Building **59**
  - Building **920N**
  - Building **920L**
  - Building **925**

**Other JSC assets/facilities for NSOC use:**

- Measurement Standards and Calibration Laboratory (MSCL)
- Receiving Inspection and Test Facility (RITF)

# Attachment J-16

## Statement of Equivalent Rates

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	11. Notice No. NASA TBD
12. CLASSES OF SERVICE EMPLOYEES TO BE EMPLOYED ON CONTRACT  Harris County, TX; 2005-2516, Occupations included in "DOL Directory"	13. NUMBER OF EMPLOYEES IN EACH CLASS	14. HOURLY WAGE RATE  THAT WOULD BE PAID IF FEDERALLY EMPLOYED
Computer Operator, II	(b) (4)	GS-6 \$19.37
Computer Programmer, I		GS-5 \$17.31
Computer Programmer, II		GS-7 \$20.96
Computer Systems Analyst, I		GS-9 \$25.63
Drafter, II		GS-8 \$24.71
Drafter, IV		GS-10 \$33.31
Engineering Technician, I		GS-6 \$20.02
Engineering Technician, II		GS-7 \$22.48
Engineering Technician, III		GS-8 \$25.15
Engineering Technician, IV		GS-7 \$31.09
Engineering Technician, V		GS-12 \$38.65
Engineering Technician, VI		GS- 13 \$46.10
Forklift Operator		WG-5 \$13.25
General Clerk, I		GS-1 \$11.88
General Clerk, II		GS-3 \$13.27
General Clerk, III		GS-3 \$14.90
Laborer		WG-2 \$11.04
Machinists, Maintenance		WG-10 \$20.81
Messenger (Courier)		GS-2 \$12.53
Production Control Clerk		GS-6 \$19.10
Scheduler Maintenance		GS-4 \$16.59
Secretary, I		GS-4 \$16.59
Secretary, II		GS-5 \$18.57
Secretary, III		GS-6 \$20.69
Sewing Machine Operator		WG-6 \$12.79
Shipping/Receiving Clerk		WG-4 \$14.60
Supply Technician		GS-9 \$25.91
Welder, Combination, Maintenance		WG-10 \$20.81
Administrative Assistant		GS- 9 \$25.91
<b>Conformed Positions:</b>		
NBL Dive Operations Specialist, I (Wage Determination; Conformed Rate: \$18.07)		GS-3 \$14.07
NBL Dive Operations Specialist, II (Wage Determination; Conformed Rate \$19.63)		GS-4 \$15.79
NBL Dive Operations Specialist, III (Wage Determination; Conformed Rate \$23.18)		GS-5 \$17.67
NBL Dive Operations Specialist, IV (Wage Determination; Conformed Rate \$28.57)		GS-7 \$21.89

## Attachment J-17

# Wage Determination

REGISTER OF WAGE DETERMINATIONS UNDER THE SERVICE CONTRACT ACT By direction of the Secretary of Labor       Diane C. Koplewski      Division of Wage Director                      Determinations	U.S. DEPARTMENT OF LABOR EMPLOYMENT STANDARDS ADMINISTRATION WAGE AND HOUR DIVISION WASHINGTON, D.C. 20210   Wage Determination No.: 2005-2516 Revision No.: 19 Date of Last Revision: 07/08/2015
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WD 05-2516 (Rev.-19) was first posted on [www.wdol.gov](http://www.wdol.gov) on 07/14/2015

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# REGISTER OF WAGE DETERMINATIONS UNDER THE SERVICE CONTRACT ACT

U.S. DEPARTMENT OF LABOR WAGE AND HOUR DIVISION

EMPLOYMENT STANDARDS ADMINISTRATION

WASHINGTON D.C. 20210

By direction of the Secretary of Labor

Daniel W. Simms, Director

Division of Wage Determinations

Wage Determination No.: 2005-2516, Revision No.: 19

Date of Revision: 07/08/2015

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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](http://www.dol.gov/whd/govcontracts).

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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

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**\*\*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	25.76
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 Conditioning 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	13.83

Coordinator	
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 (see 2)	26.35
Surface Programs	
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

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ALL OCCUPATIONS LISTED ABOVE RECEIVE THE FOLLOWING BENEFITS:

**HEALTH & WELFARE:** Life, accident, and health insurance plans, sick leave, pension plans, civic and personal leave, severance pay, and savings and thrift plans. Minimum employer contributions costing an average of \$4.27 per hour computed on the basis of all hours worked by service employees employed on the contract.

**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 ordnance, 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.

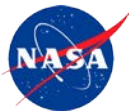
The process for preparing a conformance request is as follows:



- 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.



**QUALITY PLAN AND REPORTS  
FOR THE  
NEUTRAL BUOYANCY LABORATORY (NBL)/  
SPACE VEHICLE MOCKUP FACILITY (SVMF)  
OPERATIONS CONTRACT (NSOC)  
CONTRACT NO. NNJ10HD35C**

**February 25, 2011**



Prepared for:

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EVA, Robotics, and Crew Systems  
Operations Division  
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## PREFACE

This document, the Neutral Buoyancy Laboratory/Space Vehicle Mockup Facility (NBL/SVMF) Quality Plan and Reports, was prepared for the NASA Johnson Space Center by Team Raytheon. It is submitted in accordance with Data Requirements Description (DRD) 16, Contract Number NNJ10HD35C.

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QUALITY PLAN AND REPORTS  
FOR THE  
NEUTRAL BUOYANCY LABORATORY/  
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/s/ Larry Chase 02/18/11

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## DOCUMENT CHANGE/REVISION LOG

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## Applicable Documents

## **Federal Codes/Regulations/ Directives**

Homeland Security Presidential Directive/HSPD-12 Subject: Policy for a Common Identification Standard for Federal Employees and Contractors

FIPS 200, Minimum Security Requirements for Federal Information and Information Systems

FIPS 199, Standards for Security Categorization of Federal Information and Information Systems

Office of Management and Budget (OMB) Circular A-11, Preparing, Submitting, and Executing the Budget

Office of Management and Budget (OMB) Circular A-130, Appendix III, Security of Federal Automated Information Resources

Security Management Directive (SMD) 500-15, "Security Termination Procedures"

Procurement Information Circular (PIC) 03-14, Contract Modifications for Interim Property Information

Procurement Information Circular (PIC) 04-12, Contract Modifications for Monthly Property Financial Reporting

## **ANSI (American National Standards Institute)**

ANSI documents are commercially available from [www.ansi.org](http://www.ansi.org)

ANSI/NCSL Z540-1-1994, Calibration Laboratories and Measuring and Test Equipment

## **ASQ (American Society for Quality)**

ASQ documents are commercially available from [www.asq.org](http://www.asq.org)

ANSI/ISO/ASQ Q9001-2008, Quality Management Systems Requirements

## **GIDEP (Government-Industry Data Exchange Program)**

GIDEP documents are commercially available from [www.gidep.org](http://www.gidep.org)

SO300-BT-PRO-010, GIDEP Operations Manual

SO300-BU-GYD-010, GIDEP Requirements Guide

## **ISO (International Standards Organization)**

ISO documents are commercially available from [www.iso.org](http://www.iso.org)

ISO-9001-2008 – Model for Quality Assurance in Design/Development, Production, Installation, and Servicing

ISO 10012:2003, Measurement Management Systems – Requirements for Measurement Processes and Measuring Equipment

ISO 10007, Quality Management Systems – Guidelines for Configuration Management



## **JPD (JSC Policy Directive)**

JPD 1710.1 Design, Inspection, and Certification of Pressure Vessels and Pressurized Systems

JPD 2800.2 JSC Information Technology Program Management

JPD 5335.1B Lyndon B. Johnson Space Center Quality Manual

JPD 5335.1F JSC Quality Policy

JPD 8500.1 JSC Environmental Excellence Policy

JPD 8800.7 JSC Environmental Policy

JPD 8820.2M Facility Constructions, Rehabilitation, Modification and Repair

JPD 8820.3A Facility Configuration Management (FCM) Program

JPD 2310.1 and JPD 2310.2 JSC, Organizational Learning Program

## **JPI (JSC Procurement Instruction)**

JPI 52.223-93 Environmental and Energy Conservation Requirements

## **JPR (JSC Procedural Requirement)**

JPR 1281.11 Control of Inspection, Measuring, and Test Equipment

JPR 1700.1 JSC Safety and Health Handbook

JPR 5151.2 JSC Support Contractor Procedures Guidelines

JPR 1040.4 JSC Emergency Preparedness Plan (replaces JSC-05900)

JPR 8550.1 JSC Environmental Compliance Procedural Requirements

JPR 8553.1 JSC Environmental Management Systems Manual

JPR 7120.3, Project Management: Systems Engineering & Project Control Processes & Requirements

JPR 1281.11, Control of Inspection, Measuring, and Test Equipment

## **JSC (Johnson Space Center)**

JSC 17057 GFE Limited Cycle Time/Age Life Item Requirements

JSC 17773, Instructions for Preparation of Hazard Analysis for JSC Ground Operations

JSC 26830, SVMF General Operating Procedures

JSC 27201, Standard Facilities Practices and Technologies Handbook V 1.0

cannot be published electronically

JSC 27049, Memorandum of Understanding and Standard Interface Plan Between Center Operations Directorate and Mission Operations Directorate (For Support to MCC Operations and NSOC Operations)

JSC 28035 Problem Reporting and Corrective Action (PRACA) for Johnson Space Center (JSC) Government Furnished Equipment (GFE)

JSC 28140 - Mission Operations Directorate International Space Station Certification of Flight Readiness Implementation Plan

JSC 29234, MOD Information Technology Security and Contingency Planning Processes

JSC 62818, Information Technology Management Plan

JSC 63756, Mission Operations Directorate Software Management Plan

JSC 8080.5A, JSC Design & Procedural Standards

JSC's Energy and Water Conservation 5-Year Plan

replaced by NPR 8570.1, Energy Efficiency and Water Conservation

JSCM-5151 (Current Version) JSC Support Contractors Handbook

### **JWI and CWI (JSC Work Instruction)**

JWI 4210.2, JSC Instructions for Control of Program Stock

JWI 8831.1, Facility Manager Program

J29W-01, JSC Export Compliance Work Instruction

replaced by JWI 2190.1 JSC Export Compliance

CWI J69W-03, Energy Conservation

CWI JE9W-06, EMS Aspect/Impact Assessment and EMP Process

replaced by JWI 8553.1, EMS Aspect/Impact Assessment and EMP Process

### **MIL-STD**

MIL-STD-882D, Standard Practice for System Safety

### **NASA Standard**

NASA-STD-8719.9 Standard for Lifting Devices and Equipment

NASA-STD-8719.10 Standard for Underwater Facility and Non-Open Water Operations

NASA Standard (NASA-STD) 6002, Applying Data Matrix Identification Symbols on Aerospace Parts Handbook

NASA Technical Handbook (NASA-HDBK) 6003, Application of Data Matrix Identification Symbols to Aerospace Parts Using Direct Part Marking Methods/Techniques

NHB 4100 (Current Version) NASA Materials Inventory Management Manual

### **NASA Strategic Plans**

CIO Information resources Management Strategic Plan (Sept. 2007)

## **NMI (NASA Management Instruction)**

NMI 5330.9 Metrology Calibration

Covered by NPD 8730.1B Metrology and Calibration

## **NPD (NASA Policy Directives) and NPR (NASA Procedural Requirements)**

NPD 1050.1 Authority to Enter into a Space Act Agreement

NPD 1440.6G, NASA Records Management

NPD 2190.1, NASA Export Control Program

NPD 2800.1, Managing Information Technology

NPD 2810.1, NASA Information Security Policy

NPD 4300.4 Use of Space Shuttle and Aerospace Vehicle Materials as Mementos

NPD 8710.1, Emergency Preparedness Program

NPD 8730.1B Metrology and Calibration

NPD 9501.1H, NASA Contractor Financial Management Reporting System

Replaced by NPR 9501

NPR 1441.1D, NASA Records Retention Schedules

NPR 4100.1, NASA Materials Inventory Management Manual

NPR 4200.1, NASA Equipment Management Procedural Requirements

NPR 4300.1, NASA Personal Property Disposal Procedural Requirements

NPR 4310.1, Identification and Disposition of NASA Artifacts

NPR 7120.5D NASA Space Flight Program & Project Management Requirements

NPR 7120.6, "Lessons Learned Process"

NPR 7123.1A, NASA Systems Engineering Processes and Requirements

NPR 8000.4, Risk Management Procedural Requirements

NPR 8570.1, Energy Efficiency and Water Conservation

NPR 8621.1, "NASA Procedural Requirements for Mishap Reporting, Investigating, and Recordkeeping"

NPR 8715.3, "NASA Safety Manual"

NPR 8735.1A Procedures for Exchanging Parts, Materials, and Safety Problem Data Utilizing the GIDEP and NASA Advisories

NPR 9501.2, NASA Contractor Financial Management Reporting

## **NIST (National Institute of Standards and Technology)**

NIST SP 800-18, Guide for Developing Security Plans for Federal Information Systems

NIST SP 800-30, Risk Management Guide for Information Technology **Systems**

NIST SP 800-34, Contingency Planning Guide for Information Technology Systems

NIST SP 800-37, Guide for the Security Certification and Accreditation of Federal Information Systems  
NIST SP 800-53, Recommended Security Controls for Federal Information Systems  
NIST SP 800-53A, Draft Guide for accessing the Security Controls in Federal Information Systems  
NIST SP 800-61, Computer Security Incident Handling Guide

## **NSTS (National Space Transportation System)**

NSTS 22206 Requirements for Preparation and Approval of Failure Modes and Effects Analysis (FMEA) and Critical Items List (CIL)

## **OSHA (Occupational Health and Safety Administration)**

OSHA CSP 03-01-003, Voluntary Protection Program (VPP): Policies and Procedures Manual

## **DA – Mission Operations Directorate**

DA-WI-16, Mission Operations Directorate Space Flight Personnel Certification Plan, Space Shuttle and International Space Station

DA-WI-11 - MOD Quality Improvement Processes: Corrective Action, Preventive Action and Continual Improvement

DA8-020 - MOD Certification of Space Shuttle Program Flight Readiness Process

## **DX – EVA, Robotics, and Crew Operations**

DX-002 - EVA, Robotics & Crew Systems Operations Division Configuration Control Board (DX CCB) Charter

DX-006, "DX Change Request Process"

DX-008, Flight Readiness Review (FRR) Process Work Instruction

DX12-0114, Rev A "SCTF Lifting Procedures"

DX12-0115, Basic Logistics and Mockup Facility (LMF) Standard Operating Procedures (SOP)

DX12-0120 NBL Guest Diving Application, Approval and Retention Procedures

DX12-CHT-001, Basic NBL Configuration Control Board (CCB) Charter

DX12-COMM-W0012, "NBL Diver Voice Communication System Operations and Maintenance Procedure

**See NBL-CS-COMM-W0012**

DX12-CS-BGS-M0004, "NBL Breathing Gas System Operations Manual"

DX12-CS-BGS-W0011, "NBL Breathing Gas System Operations Procedures"

**See DX12-UWI-027 "NBL BGS Operator WI"**

DX12-CS-CLN-W0002, "NBL Clean Room Procedures"

DX12-CS-FAC-W0005, "NBL Pneumatic and Hydrostatic Test Bench Procedures"

DX12-CS-ROBSS-TS0058, "NBL SSRMS Rules"

DX12-CS-ROBS-TS0033, "NBL SRMS Rules"

DX12-CS-ROB-TS0011, "NBL Robotic Systems Diagnostic Procedures and Guidelines"

DX12-CS-ROBTS-M0001, "NBL Hydraulic Test Stand Hydraulic Power Unit Operations"

DX12-POL-001, NBL General Operating Plan (GOP)

DX12-POL-002, NBL Standard Operating Plan (SOP)

DX12-POL-003, NBL Configuration Management Policy

DX12-POL-004, NBL Training and Certification Policy

DX12-POL-005, NBL Engineering Policy

DX12-POL-006, NBL Maintenance Policy

DX12-POL-007, NBL Safety and Mission Assurance Policy

DX12-POL-008, SCTF Lifting Policy

DX12-POL-009, LMF Standard Operating Plan (SOP)

DX12-REF-001, Rev A "NBL Definitions and Acronyms"

DX12-REF-002, Basic "NBL User's Guide"

DX12-SLP-002, "NBL Test Readiness Review System Level Procedure"

DX12-SLP-003, "Neutral Buoyancy Laboratory Discrepancy Reporting System Level Procedure"

DX12-SLP-006, "NBL Suited Event Procedure."

DX12-SLP-007, "NBL Water Survival Event Procedure."

DX12-SLP-008, "NBL Configured SCUBA Event."

DX12-SLP-009, "NBL 1g Activities Procedures."

DX12-SLP-010, "NBL Diving and Swimming Procedures"

DX12-SLP-011, Basic "NBL System Entry Control Program"

DX12-SLP-014, "NBL Mockup and Training Hardware Requirements"

DX12-SLP-015, "NBL Test Integration Procedure"

DX12-UWI-005, Rev A "NBL Test Director Work Instruction"

DX12-UWI-010, "NBL Television Console Operator Work Instruction"

DX12-UWI-011, "NBL Communications Operator Work Instruction Procedure"

DX12-UWI-025, "NBL Robotics Systems Test Duty Station Work Instruction"

DX12-UWI-026, "NBL Environmental Control System Operations Work Instruction"

DX12-UWI-027, Basic "NBL Breathing Gas System Operator Work Instruction"

DX14-027D, "SVMF TRR Work Instruction"

DX14-0037, SVMF Office Staff Certification Guide

DX14-0041 - Space Vehicle Mockup Facility Configuration Control Board (CCB) Charter

DX14-POL-002, SVMF Standard Operating Plan

NBL-CS-ROB-0017, "NBL Robotic Systems Maintenance Procedure"

NBL-CS-SCU-W0056, "Dive Systems/SCUBA Technician"  
NBL-CS-SSDS-W0003, "Neutral Buoyancy Surface-Supplied Diving System Work Instructions"  
NBL-CS-WTS-W0025, "NBL Water Treatment System Operations Procedures"  
NBL-CS-WTS-W0030, "NBL Pool Wall Inspection Procedures and Guidelines"  
NBL-Eng-W0139, "NBL Integration Engineering Team Handbook"  
NBL-MA-0081, "NBL Designated Verification Program Procedures"  
NBL-Maint-L0010, "NBL Maintenance Plan"  
NBL-OCC-M0003, "Neutral Buoyancy Laboratory Operations Control Procedures"  
SVMF-OCC-F0029 - SVMF Discrepancy Report Form (DR) MOD DX/14  
SVMF-OCC-M0002 - SVMF User's Manual  
SVMF-OCC-W0023, "SVMF Discrepancy Report Work Instruction"  
SVMF-OPS-W0076 - Certification of SVMF Lifting Hardware

# Attachment J-20

## Mockups and Systems List

**(Complete listing can be found with the CS in electronic format)**

# Attachment J-21

## Stock Equipment List

**(Complete listing can be found with the CS in electronic format)**