AWARD/CONTRACT

1. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 350)	RATING	PAGE	OF	
	DO-C9	1	215	PAGES

2. CONTRACT (Proc. Inst. Ident.) NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQUEST/PROJECT NO.
NNM07AA74C	02/01/2007	See Page A-2

5. ISSUED BY	CODE	PS33	6. ADMINISTERED BY (If other than Item 5)	CODE	PS33
Procurement Office, Mail Code PS30 George C. Marshall Space Flight Center National Aeronautics and Space Administration Marshall Space Flight Center, AL 35812			NASA/George C. Marshall Space Flight Center Attn: Warren G. Jones, Jr. 256-961-2067 or 256-544-0839 Deliver to: Building 4203, Rm B100 Marshall Space Flight Center, AL 35816		

7. NAME AND ADDRESS OF CONTRACTOR (No., street, city, county, State and ZIP Code)	8. DELIVERY	9. DISCOUNT FOR PROMPT PAYMENT	10. SUBMIT INVOICES (4 copies unless otherwise specified) TO THE ADDRESS SHOWN IN:	ITEM
Hernandez Engineering Inc. 17625 El Camino Real, Suite 300 Houston, TX 77058	☐ FOB ORIGIN ☐ OTHER (See below)	N/A		Clause G.2

CODE	2Y303	FACILITY CODE	100289

11. SHIP TO/MARK FOR	CODE	QD01	12. PAYMENT WILL BE MADE BY	CODE	RS23
Terry J. Hamm Tel: 256-544-7402			Accounting Operation Office George C. Marshall Space Flight Center/ NASA MSFC, AL 35812 Automated Invoice Payment Center Info: 256-544-5566		

13. AUTHORITY FOR USING OTHER THAN FULL AND OPEN COMPETITION:	14. ACCOUNTING AND APPROPRIATION DATA
☐ 10 USC 2304(c) ( ) ☐ 41 USC 253(c) ( )	See Page A-2

15A. ITEM NO.	15B. SUPPLIES/SERVICES	15C. QUANTITY	15D. UNIT	15E. UNIT PRICE	15F. AMOUNT
	Safety and Mission Assurance Support for the Marshall Space Flight Center (MSFC) S&MA Directorate. See Section B, Table B-1 for contract values associated with each period of performance. APPROVED: Stephen P. Beale PROCUREMENT OFFICER				
				15G. TOTAL AMOUNT OF CONTRACT	$See Table B-1

16. TABLE OF CONTENTS

(X)	SEC.	DESCRIPTION	PAGE(S)	(X)	SEC.	DESCRIPTION	PAGE(S)
		PART I - THE SCHEDULE				PART II - CONTRACT CLAUSES	
X	A	SOLICITATION/CONTRACT FORM	1	X	I	CONTRACT CLAUSES	17
X	B	SUPPLIES OR SERVICES AND PRICES/COST	8			PART III - LIST OF DOCUMENTS, EXHIBITS AND OTHER ATTACH	
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X	D	PACKAGING AND MARKING	1			PART IV - REPRESENTATIONS AND INSTRUCTIONS	
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X	F	DELIVERIES OR PERFORMANCE	2		L	INSTRS., CONDS., AND NOTICES TO OFFERORS	
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CONTRACTING OFFICER WILL COMPLETE ITEM 17 OR 18 AS APPLICABLE

17. ☒ CONTRACTOR'S NEGOTIATED AGREEMENT *(Contractor is required to sign this document and return* 3 *copies to issuing office.)* Contractor agrees to furnish and deliver all items or perform all the services set forth or otherwise identified above and any continuation sheets for the consideration stated herein. The rights and obligations of the parties to this contract shall be subject to and governed by the following documents: (a) this award/contract, (b) the solicitation, if any, and (c) such provisions, representations, certifications, and specifications, as are attached or incorporated by reference herein. *(Attachments are listed herein.)*

18. ☐ AWARD *(Contractor is not required to sign this document.)* Your offer on Solicitation Number _____, including the additions or changes made by you which additions or changes are set forth in full above, is hereby accepted as to the items listed above and on any continuation sheets. This award consummates the contract which consists of the following documents: (a) the Government's solicitation and your offer, and (b) this award/contract. No further contractual document is necessary.

19A. NAME AND TITLE OF SIGNER *(Type or print)*	20A. NAME OF CONTRACTING OFFICER
Miguel A. Hernandez, Jr. Chief Operating Officer	David A. Iosco ORIGINAL SIGNED BY DAVID A. IOSCO

19B. NAME OF CONTRACTOR	19C. DATE SIGNED	20B. UNITED STATES OF AMERICA	20C. DATE SIGNED
BY _____ *(Signature of person authorized to sign)*	November 16, 2006	BY _____ *(Signature of Contracting Officer)*	01/12/2007

PART I – THE SCHEDULE

SECTION A

SOLICITATION/CONTRACT FORM

A.1 STANDARD FORM 26 (see previous page)

A.2 CONTINUATION OF STD. FORM 33, BLOCK 14 (MSFC 52.204-92) (FEB 2001)

Accounting and Appropriation Data:

PR Number	Fund	WBS Element	Cost Center	Internal Order	Fund Center	Amount
4200184676	ESAX22007D	667560.08.04.01	62QD10		62	$ 355,472
4200184676	EXCX22007D	667560.08.01.01	62QD20		62	$ 750,000
4200184676	EXCX22007D	325288.01.08	62QD03		62	$ 394,528

(End of clause)

BLOCK 7
REMITTANCE ADDRESS:

Hernandez Engineering Inc.
PO Box 201363
Dallas, TX 75320-1363

A.3 DETAILED TABLE OF CONTENTS

PART I –The Schedule

Section F – Deliveries or Performance

Section G – Contract Administration Data

Section H – Special Contract Requirements

PART II – Contract Clauses

Section I – Contract Clauses

PART III – List of Documents, Exhibits and Other Attachments

Section J – List of Attachments

PART I – THE SCHEDULE

SECTION B

SUPPLIES OR SERVICES AND PRICES/COSTS

B.1 SUPPLIES AND/OR SERVICES TO BE FURNISHED AND TYPE OF CONTRACT

(a) The Contractor shall provide all resources (except as may be expressly stated in this contract as furnished by the Government) necessary to perform all the service requirements in SECTION C, Description/Specification/Statement of Work presented as the PERFORMANCE WORK STATEMENT (PWS) in Attachment J-1.

(b) This is a cost-reimbursement, Indefinite Delivery, Indefinite Quantity (IDIQ) type contract. Fee will be evaluated subjectively (both for Award Fee and Award Term Fee), as described in attachment L-3 of this solicitation. Work will be authorized via Task Orders by the Contracting Officer which will be incorporated into Clause B.2 "Estimated Cost, Award Fee and Award Term Fee" by periodic contract modification. (See Clause H.4)

(c) Government orders for services in quantities specified above the minimum and below the maximum shall not constitute a basis for price adjustments.

(d) The award of this IDIQ contract does not inhibit the Government's right to later award separate contracts for similar or related services.

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Table B-1: Allowable Cost and Payment

In the event that the Government does not order the minimum quantity specified below (Table B-1) for the base period, each option period and each award term period covered, the Government's obligation is limited to costs incurred plus payment of the minimum award fees earned. Cost will be reimbursed in accordance with the "Allowable Cost and Payment" clause of the contract for the quantity ordered per FAR Part 31. (See Section L, Volume II. Cost Factor, Paragraph G., Fee Plan)

Contract Periods		MINIMUM QUANTITY			MAXIMUM QUANTITY		
		Estimated	Potential	Award	Estimated	Potential	Award
Type	Contract	Cost	Award Fee [1,2]	Term Fee [1,2]	Cost	Award Fee [1,3]	Term Fee [1,3]
Base Year 1	Year 1	$5,000,000	$458,500		$30,240,000	$2,773,008	
Base Year 2	Year 2	$5,000,000	$458,500		$31,080,000	$2,850,036	
Option 1	Year 3	$5,000,000		$180,500	$32,200,000		$1,162,420
Option 2	Year 4	$5,000,000	$458,500		$33,040,000	$3,029,768	
Option 3	Year 5	$5,000,000	$458,500		$34,160,000	$3,132,472	
Award Term 1	Year 6	$5,000,000		$180,500	$35,280,000		$1,273,608
Award Term 2	Year 7	$5,000,000	$458,500		$36,540,000	$3,350,718	
Award Term 3	Year 8	$5,000,000		$180,500	$37,800,000		$1,364,580
Award Term 4	Year 9	$5,000,000	$458,500		$39,200,000	$3,594,640	
Award Term 5	Year 10	$5,000,000	$458,500		$40,460,000	$3,710,182	

1 Includes a 2.0% set-aside for the MSFC S&MA employees
2 Assumes the Minimum Quantity is an annual (vs cumulative) amount for the contract year specified.
3 Assumes the Maximum Quantity is an annual (vs cumulative) amount for the contract year specified.

(End of Clause)

B.2 ESTIMATED COST, AWARD FEE AND AWARD TERM FEE

(a) The estimated cost of this contract is $ See Below* . The maximum potential award fee is $ See Below* . The maximum award term fee is $ See Below* . Total estimated cost, maximum potential award fee, and maximum award term fee are $ See Below* .

In accordance with Clause H.4, these values are based on the summation of all individual Task Orders and are reflected in paragraph (b) below.

(b) Task Order summation (Table B-2) by contract year and evaluation period of estimated cost, maximum potential Award Fee, total Award Fee earned, maximum Award Term Fee and total Award Term Fee earned.

(c) NASA will maintain a detailed IDIQ Task Order list as part of the daily administration of the contract and will update the contract periodically (as frequently as necessary) to reflect a comprehensive listing of tasks authorized.

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Table B-2: Summation of Task Orders

** Contract Period Covered	*** Total Estimated Cost	Maximum Potential Award Fee	Total Award Fee Earned	Maximum Award Term Fee	Total Award Term Fee Earned	Total Task Order Value
Base Year 1						
Fee Period 1						
Fee Period 2						
Base Year 2						
Fee Period 3						
Fee Period 4						
Option 1						
Fee Period 5						
Fee Period 6						
Option 2						
Fee Period 7						
Fee Period 8						
Option 3						
Fee Period 9						
Fee Period 10						
Award Term Period 1						
Fee Period 11						
Fee Period 12						
Award Term Period 2						
Fee Period 13						
Fee Period 14						
Award Term Period 3						
Fee Period 15						
Fee Period 16						
Award Term Period 4						
Fee Period 17						
Fee Period 18						
Award Term Period 5						
Fee Period 19						
Fee Period 20						
TOTALS						

** = 6 month evaluation periods

*** = Includes cost associated with PWS 2.0.

(End of clause)

B.3 AWARD FEE AND AWARD TERM FEE FOR SERVICE CONTRACTS

1) (AWARD FEE)

(a) The contractor can earn award fee from a minimum of zero dollars to the maximum stated in NASA FAR Supplement clause 1852.216-85, "Estimated Cost and Award Fee" in this contract.

(b) Beginning six (6) months after the effective date of this contract, the Government shall evaluate the Contractor's performance every six (6) months, unless changed to twelve (12) months by the Fee Term Determination Official (FTDO), 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 Fee/Award Term Performance Evaluation Plan. The plan may be revised unilaterally by the Government prior to the beginning of any rating period to redirect emphasis.

(c) The Government will advise the Contractor in writing of the evaluation results. The MSFC Accounting Operations Office/RS33 or the designated paying office (i.e. NASA Shared Services Center) will make payment based on the issuance of a unilateral modification by the Contracting Officer incorporating the earned award fee.

(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 at clause B.1. Award fee which is not earned in an evaluation period cannot be reallocated to future evaluation periods. Award Term Fee is fixed and payable as set forth in B.1 (amount) and B.4 (Payment of Fixed Fee) respectively.

(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 60% 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 not 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.

2) AWARD TERM FEE (FIXED FEE)

(a) The Government shall pay the Contractor for performing this contract the Award Term Fee in the form of a fixed fee as specified in the Schedule.

(b) Payment of the fixed fee shall be made as specified in the Schedule; provided that after payment of 85 percent of the fixed 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 total fixed 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.

(End of clause)

B.4 1852.216-75 PAYMENT OF FIXED FEE (Dec 1988)

The fixed fee shall be paid in monthly installments based upon the percentage of completion of work as determined by the Contracting Officer.

(End of clause)

B.5 Reserved

B.6 CONTRACT FUNDING (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 $ 1,362,450. This allotment is for Safety and Mission Assurance (S&MA) Services and covers the following estimated period of performance: March 7, 2007 .

(b) An additional amount of $ 137,550 is obligated under this contract for payment of fees.

(c) Recapitulation of funding is as follows:

	Previous	This Action	Total
Estimated Cost:	0	$1,362,450	$1,362,450
Provisional, Award Fee:	0	$ 137,550	$ 137,550
Award Term Fee:	0	0	0
Total Sum Allotted:	0	$1,500,000	$1,500,000

(End of Clause)

B.7 PREMIUM FOR SCHEDULED OVERTIME (MSFC 52.222-90) (FEB 2001)

Pursuant to the clause entitled "Payment for Overtime Premiums," the amount of overtime premium authorized shall not exceed the amount specified below for the indicated period.

Amount	Contract Periods
(b)(4)	

(End of clause)

B.8 ALLOWABLE ITEMS OF COST (MSFC 52.242-90) (FEB 2001)

(a) In accordance with the advance agreement between the Government and the Contractor for this contract, allowable costs for the items listed below are subject to the ceilings shown:

General and Administrative (G & A) Rate Ceiling (b)(4)

(b) It is mutually agreed that when indirect cost rate ceilings are specified in paragraph (a) above, the following conditions shall apply: (1) the Government shall not be obligated to pay any additional amount should the final indirect cost rates exceed the negotiated ceiling rates, and (2) in the event the final indirect cost rates are less than the negotiated ceiling rates, the negotiated rates shall be reduced to conform with the lower rates.

(End of Clause)

[END OF SECTION]

SECTION C

DESCRIPTION/SPECIFICATIONS/STATEMENT OF WORK

C.1 DESCRIPTION/SPECIFICATIONS/STATEMENT OF WORK (MSFC 52.211-93) (FEB 2001)

The Description/Specifications/Statement of Work is Attachment J-1, Performance Work Statement (PWS).

(End of clause)

C.2 GENERAL

The Performance Work Statement is stated in broad terms in order to achieve maximum required flexibility. The Contractor's obligation under this contract may include resolution of unusual or emergency situations that may occur from time to time throughout the period of performance. Work of this nature directed of the Contractor by the Government will be by "Technical Directives" from the Contracting Officer or his Representative, as further defined in G.4. Services so directed will be considered within the general scope of the contract, entirely within the Contractor's original contractual obligation, and will not constitute nor be construed as a change within the meaning of the clause of this contract entitled "FAR Subpart 52.243-2 Changes -- Cost Reimbursement -- Alternate II." However, if any written direction by the Government through Technical Directives is considered by the Contractor, to be outside the scope of his contractual obligation, the Contractor, before performing any effort pursuant to such Government direction, shall refer such questions to the Contracting Officer for resolution.

(End of clause)

C.3 EXCLUDED FUNCTIONS AND RESPONSIBILITIES

Functions and responsibilities directly involved or associated with the management of any MSFC Directorate, Office or Laboratory are expressly excluded from this contract. Any instructions, directives, or orders issued under this contract involving such MSFC management functions and responsibilities shall be null and void. The following activities are representative of the excluded functions and responsibilities that cannot be provided by the Contractor for the Government:

- Policy making or management of MSFC operations;
- Program or project management;

- Technical management of Government contracts;

- MSFC management planning, programming (including preparation of scopes of work and/or procurement requests for items to be contracted for by MSFC), budgeting, review, and analysis;

- Government purchasing, contracting, contract administration, and/or performance, and pay and accounting;

- Direction or supervision of other Government Contractors or Government agencies, or otherwise acting as an agent to obligate or commit MSFC in any capacity;

- Clerical and other administration-type functions required to be performed by civil service personnel; and

- Supervision of Government employees.

(End of clause)

[END OF SECTION]

SECTION D

PACKAGING AND MARKING

D.1 LISTING OF CLAUSES INCORPORATED BY REFERENCE

I. Federal Acquisition Regulation (48 CFR Chapter 1)

Clause Number	Title	Date

None included by reference.

II. NASA FAR Supplement (48 CFR CHAPTER 18) Clauses

Clause Number	Title	Date
1852.211-70	Packaging, Handling, and Transportation	Sep 2005

(End of Clause)

(END OF SECTION)

SECTION E

INSPECTION AND ACCEPTANCE

E.1 LISTING OF CLAUSES INCORPORATED BY REFERENCE

I. Federal Acquisition Regulations (48 CFR Chapter 1) Clauses

Clause Number	Title	Date
52.246-3	Inspection of Supplies-Cost Reimbursement	(May 2001)
52.246-5	Inspection of Services-Cost-Reimbursement	(Apr 1984)
52.246-15	Certificate of Conformance	(Apr 1984)

II. NASA FAR Supplement (48 CFR Chapter 18) Clauses

Clause Number	Title	Date
None Included by Reference		

(End of Clause)

E.2 GOVERNMENT CONTRACT QUALITY ASSURANCE FUNCTIONS (1852.246-71)(OCT 1988)

In accordance with the Inspection clause of this contract, the Government intends to perform the following functions at the locations indicated.

Item	Quality Assurance Function	Location
All	Final Inspection & Acceptance	MSFC, AL

(End of Clause)

E.3 1852.246-72 MATERIAL INSPECTION AND RECEIVING REPORT (AUG 2003)

(a) At the time of each delivery to the Government under this contract, the Contractor shall furnish a Material Inspection and Receiving Report (DD Form 250 series) prepared in five (5) copies, an original and four (4) copies.

(b) The Contractor shall prepare the DD Form 250 in accordance with NASA FAR Supplement 1846.6. The Contractor shall enclose the copies of the DD Form 250 in the package or seal them in a waterproof envelope, which shall be securely attached to the exterior of the package in the most protected location.

(c) When more than one package is involved in a shipment, the Contractor shall list on the DD Form 250, as additional information, the quantity of packages and the package numbers. The Contractor shall forward the DD Form 250 with the lowest numbered package of the shipment and print the words "CONTAINS DD FORM 250" on the package.

(End of Clause)

E.4 HIGHER-LEVEL CONTRACT QUALITY REQUIREMENT (52.246-11) (FEB 1999)

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

	Title	Number	Date
☒	American National Standard- Quality Management Systems-Requirements	ANSI/ISO/ASQ Q9001-2000	Approved Dec 13, 2000
☒	Quality Management Systems-Aerospace-Requirements	AS9100	1999-11, Rev. B (Revised 2004-01) supersedes AS9100A
☒	Marshall Management Directive	MPD 1280.1	09/17/04

(End of Clause)

E.5 CHANGES TO HIGHER-LEVEL CONTRACT QUALITY REQUIREMENTS

It is mutually agreed and understood that the Government may unilaterally update Clause E.4 with future versions and require full compliance to the latest requirements. Such action shall not give rise to an equitable adjustment to the estimated contract value, including both cost and award fees/award term fees, or any other expressed terms and conditions of this contract.

(End of Clause)

[END OF SECTION]

SECTION F

DELIVERIES OR PERFORMANCE

F.1 LISTING OF CLAUSES INCORPORATED BY REFERENCE

I. Federal Acquisition Regulations (48 CFR Chapter 1) Clauses

Clause Number	Title	Date
52.242-15	Stop-Work Order Alternate I	(Aug 1989)

II. NASA FAR Supplement (48 CFR CHAPTER 18) Clauses

Clause Number	Title	Date
	NONE	

(End of Clause)

F.2 PERIOD OF PERFORMANCE

(a) The base period of performance of this contract shall be February 1, 2007 through January 31, 2009. Contract phase-in will be covered by a separate Purchase Order.

(b) In the event the Government elects to exercise its option(s) and award term periods pursuant to the terms of this contract, the period of performance for each option shall be as set forth below:

Contract Periods.	Period of Performance
Option 1	February 1, 2009 – January 31, 2010
Option 2	February 1, 2010– January 31, 2011
Option 3	February 1, 2011– January 31, 2012
Award Term 1	February 1, 2012 – January 31, 2013
Award Term 2	February 1, 2013– January 31, 2014
Award Term 3	February 1, 2014 – January 31, 2015
Award Term 4	February 1, 2015 – January 31, 2016
Award Term 5	February 1, 2016 – January 31, 2017

(End of Clause)

F.3 PLACE OF PERFORMANCE (MSFC 52.237-91 (FEB 2001)

The Contractor shall perform the work under this contract at the Marshall Space Flight Center, Huntsville, AL 35812 and at such other locations that may be approved in writing by the Contracting Officer.

(End of clause)

F.4 RESERVED

F.5 PHASE-IN AND PHASE-OUT

(a) The services provided by this contract are important to the Government's overall mission and continuity must be maintained at the consistently high level without interruption. The Contractor is expected to meet full performance requirements from the date of the base contract period. Prior to performance of services ordered by the Government under this contract, the Contractor shall accomplish all tasks required to begin work ordered under this contract. Some examples of activities that remain the sole responsibility and expense of the Contractor include managing transition activities, ensuring that adequate equipment is readily available, hiring personnel, obtaining personnel badges, and clearances, training personnel, scheduling the performance of ordered work, ensuring approval of safety plan, and compliance with contract data requirements. Likewise, compliance with any and all other requirements identified within the body of this contract as being a prerequisite to performance of priced work shall be accomplished by the contractor.

(b) Phase-out activities shall be accomplished in accordance with FAR 52.237-3 Continuity of Services.

(End of Clause)

[END OF SECTION]

SECTION G

CONTRACT ADMINISTRATION DATA

G.1 LISTING OF CLAUSES INCORPORATED BY REFERENCE

I. Federal Acquisition Regulation (48 CFR Chapter 1)

Clause Number	Title	Date

None included by reference.

II. NASA FAR Supplement (48 CFR Chapter 18) Clauses

Clause Number	Title	Date
1852.242-71	Travel Outside of the United States	Dec 1988
1852.242-73	NASA Contractor Financial Management Reporting	Nov 2004

(End of Clause)

G.2 SUBMISSION OF VOUCHERS FOR PAYMENT (1852.216-87) (MAR 1998)

(a) The designated billing office for cost vouchers for purposes of the Prompt Payment clause of this contract is indicated below. Public vouchers for payment of costs shall include a reference to the number of this contract.

(b) (1) If the Contractor is authorized to submit interim cost vouchers directly to the NASA paying office, the original voucher should be submitted to:

NASA/George C. Marshall Space Flight Center
RS23/Accounting Operations Office
Marshall Space Flight Center, AL 35812

Or other designated billing office as specified in writing by the Contracting Officer. (i.e. NASA Shared Services Center, etc.)

(2) For any period that the Defense Contract Audit Agency (DCAA) has authorized the Contractor to submit interim cost vouchers directly to the Government paying

office, interim vouchers are not required to be sent to the Auditor, and are considered to be provisionally approved for payment, subject to final audit.

(3) Copies of vouchers should be submitted as directed by the Contracting Officer.

(c) If the Contractor is not authorized to submit interim cost vouchers directly to the paying office as described in paragraph (b), the Contractor shall prepare and submit vouchers as follows:

(1) One original Standard Form (SF) 1034, SF 1035, or equivalent Contractor's attachment through the Contractor's cognizant DCAA office to the NASA paying office identified in Paragraph (b)(1).

(2) Five copies of SF 1034, SF 1035A, or equivalent Contractor's attachment to the following offices by insertion in the memorandum block of their names and addresses:

(i) Copy 1 NASA Contracting Officer

(ii) Copy 2 Auditor

(iii) Copy 3 Contractor

(iv) Copy 4 Contract Administration Office

(v) Copy 5 Project Management Office

(3) The Contracting Officer may designate other recipients as required.

(d) Public vouchers for payment of fee shall be prepared similarly to the procedures in paragraphs (b) or (c) of this clause, whichever is applicable, and be forwarded to the address specified in paragraph (b)(1). This is the designated billing office for fee vouchers for purposes of the "Prompt Payment" clause of this contract.

(e) In the event that amounts are withheld from payment in accordance with provisions of this contract, a separate voucher for the amount withheld will be required before payment for that amount may be made.

(End of clause)

G.3 1852.227-72 DESIGNATION OF NEW TECHNOLOGY REPRESENTATIVE AND PATENT REPRESENTATIVE (JULY 1997)

(a) For purposes of administration of the clause of this contract entitled "New Technology" or "Patent Rights--Retention by the Contractor (Short Form)," whichever is included, the following named representatives are hereby designated by the Contracting Officer to administer such clause:

	Title	Office Code
New Technology Representative	Chief, Technology Utilization	ED03 MSFC, AL 35812
Patent Representative	Chief, Intellectual Property Counsel	LS01 MSFC, AL 35812

(b) Reports of reportable items, and disclosure of subject inventions, interim reports, final reports, utilization reports, and other reports required by the clause, as well as any correspondence with respect to such matters, should be directed to the New Technology Representative unless transmitted in response to correspondence or request from the Patent Representative. Inquires or requests regarding disposition of rights, election of rights, or related matters should be directed to the Patent Representative. This clause shall be included in any subcontract hereunder requiring a "New Technology" clause or "Patent Rights--Retention by the Contractor (Short Form)" clause, unless otherwise authorized or directed by the Contracting Officer. The respective responsibilities and authorities of the above-named representatives are set forth in 1827.305-370 of the NASA FAR Supplement.

(End of clause)

G.4 TECHNICAL DIRECTION (1852.242-70) (SEP 1993)

(a) Performance of the work under this contract is subject to the written technical direction of the Contracting Officer's 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 J-1 of this contract.

*(b) The COTR does not have the authority to, and shall not, issue any instruction purporting to be technical direction that:

(1) Constitutes an assignment of additional work outside the statement of work;

(2) Constitutes a change as defined in the changes clause;

(3) Constitutes a basis for any increase or decrease in the total estimated contract cost, the fixed fee (if any), or the time required for contract performance;

(4) Changes any of the expressed terms, conditions, or specifications of the contract; or

(5) Interferes with the Contractor's rights to perform the terms and conditions of the contract.

(c) All technical direction shall be issued in writing by the COTR.

(d) The Contractor shall proceed promptly with the performance of technical direction duly issued by the COTR in the manner prescribed by this clause and within the COTR's authority. If, in the Contractor's opinion, any instruction or direction by the COTR falls within any of the categories defined in paragraph (b) above, 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 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)

* Note: See clause at H.4; NFS 1852.216-80 TASK ORDERING PROCEDURE (OCT 1996), for related contractual authority covering Contracting Officer changes/additions to the contract. Clause G.4 addresses COTR technical direction/guidance and Clause H.4 addresses CO contract change authority.

G.5 INSTALLATION-ACCOUNTABLE GOVERNMENT PROPERTY (1852.245-71) (NOV 2004)

(a) The Government property described in the clause at 1852.245-77, List of Installation-Accountable Property and Services shall 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. Under this clause, the Government retains accountability for, and title to, the property, and the Contractor assumes the following user responsibilities:

The contractor shall retain responsibility for ensuring proper use, care, and protection (safeguarding) of all Installation-Accountable Government Property (IAGP) under his/her custody and control. Individual users shall be responsible for the following: (1) Ensuring IAGP is used only in pursuit of approved programs and projects, or as otherwise authorized; (2) Notifying cognizant Property Support Assistant (PSA) and/or Property Custodian, of all assigned equipment location changes; (3) Ensuring that any lost, missing or damaged IAGP is officially reported to his/her supervisor, the appropriate PSA, and the Protective Services Department; (4) Notifying PSA of IAGP not being actively used; (5) Ensuring that IAGP is turned in to the Property Disposal Officer through the PSA when no longer needed. Under no circumstances will the contractor dispose of IAPG, whether tagged or untagged; and, (6) Notifying the Contracting Officer, cognizant PSA, and the Center's Supply and Equipment Management Officer upon termination of employment.

The contractor shall establish and adhere to a system of written procedures for 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, physical inventory, financial control, and reporting of the property subject to this clause shall be retained by the Government and accomplished 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's purchase order shall require the vendor to deliver the property to the installation central receiving area;
(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 45.5 and 1845.5 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 SEMO. The contractor shall assume accountability and financial reporting responsibility for such property. The contractor shall establish records and property control procedures and maintain the property in accordance with the requirements of FAR Part 45.5 until its return to the installation.

(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) 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.

(End of clause)

G.6 LIST OF INSTALLATION-ACCOUNTABLE PROPERTY AND SERVICES (1852.245-77) (JUL 1997)

In accordance with the clause at 1852.245-71, Installation-Accountable Government Property, the Contractor is authorized use of the types of property and services listed below, to the extent they are available, in the performance of this contract within the physical borders of the installation, which may include buildings and space owned or directly leased by NASA in close proximity to the installation, if so designated by the Contracting Officer.

(a) Office space, work area space, and utilities. Government telephones are available for official purposes only; pay telephones are available for Contractor employees for unofficial calls, both local and long distance.

(b) General- and special-purpose equipment, including office furniture.

(1) Equipment, not listed in this clause, to be made available to the Contractor is listed in Attachment J-7. The Government retains accountability for this property under the clause at 1852.245-71, "Installation-Accountable Government Property," regardless of its authorized location.

(2) 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 as required by the clause at 1852.245-71, "Installation-Accountable Government Property."

(3) 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.

(c) Supplies from stores stock.

(d) Publications and blank forms stocked by the installation.

(e) Safety and fire protection for Contractor personnel and facilities.

(f) Installation facility services.

(g) Medical treatment of a first-aid nature for Contractor personnel injuries or illnesses sustained during on-site duty and normal operating hours.

(h) Cafeteria privileges for Contractor employees during normal operating hours.

(i) Building maintenance for facilities occupied by Contractor personnel.

(j) Access to the Wellness Center fitness facilities consistent with the Center's policies.

(k) Moving and hauling for office moves, movement of large equipment, and delivery of supplies. Moving services shall be provided on-site, as approved by the Contracting Officer.

(l) The user responsibilities of the Contractor are defined in paragraph (a) of the clause at 1852.245-71, "Installation-Accountable Government Property."

(End of clause)

G.7 CONTRACTOR EMPLOYEE BADGING AND EMPLOYMENT TERMINATION CLEARANCE (MSFC 52.204-90) (NOV 1999)

(a) It is anticipated that performance of the requirements of this contract will require employees' access to and picture badging by the Marshall Space Flight Center. Contractor requests for badging of employees shall be by MSFC Form 1739, Contractor Badge/Decal Application. Requests for badging shall be submitted to the appointed Contracting Officer's Technical Representative for completion and approval prior to processing by the MSFC Protective Services Department.

(b) The Contractor shall establish procedures to ensure that each badged employee is properly cleared in accordance with MSFC Form 383-1, "Contractor Employee Clearance Document," prior to finalization of employment termination.

(c) Requests for copies of MSFC Forms 383-1, and 1739 shall be directed to the MSFC Protective Services Department, Marshall Space Flight Center, Alabama 35812.

(End of clause)

G.8 PERSONAL IDENTITY VERIFICATION OF CONTRACTOR PERSONNEL (JAN 2006)

(a) The Contractor shall comply with agency personal identity verification procedures identified in the contract that implement Homeland Security Presidential Directive-12 (HSPD-12), Office of Management and Budget (OMB) guidance M-05-24, and Federal Information Processing Standards Publication (FIPS PUB) Number 201.

(b) The Contractor shall insert this clause in all subcontracts when the subcontractor is required to have physical access to a federally-controlled facility or access to a Federal information system.

(End of clause)

G.9 STATEMENT OF EQUIVALENT RATES FOR FEDERAL HIRES (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 IS FOR INFORMATION ONLY:
IT IS NOT A WAGE DETERMINATION

A. Classification, Grades and Rates

Classification	Grade	Hourly Rate
Administrative Assistant	GS-07	$ 16.95
Computer Systems Analyst I	GS-09	$ 20.73
Computer Systems Analyst II	GS-11	$ 25.09
Computer Programmer I	GS-05	$ 13.68
Computer Programmer II	GS-07	$ 16.95
Computer Programmer III	GS-09	$ 20.73
General Clerk I	GS-02	$ 9.99
Quality Control Inspector I	GS-09 *	$ 20.73
Quality Control Inspector II	GS-11 *	$ 25.09

Quality Control Inspector III	GS-12 *	$ 30.07
Secretary I	GS-04	$ 12.23
Secretary II	GS-05	$ 13.68
Secretary III	GS-06	$ 15.25

* The Federal Grade Equivalent (FGE) is one FGE grade above the classification that performs the work being inspected.

B. Fringe Benefits (applicable to all classifications)

1. Health and Insurance

Life, accident, and health insurance and sick leave programs, twenty-five percent (25%) of basic hourly rate.

2. Holidays

a. New Year's Day
b. Martin Luther King's Birthday
c. President's Day
d. Memorial Day
e. Independence Day
f. Labor Day
g. Columbus Day
h. Veterans Day
i. Thanksgiving Day
j. Christmas Day

3. Vacation or Paid Leave

a. 2 hours of annual leave each week for an employee with less than three years of service.
b. 3 hours of annual leave each week for an employee with three but less than fifteen years of service.
c. 4 hours of annual leave each week for an employee with fifteen or more years of service.

4. Retirement

1.5 percent of basic hourly rate plus Thrift Savings Plan plus Social Security.

(End of clause)

[END OF SECTION]

SECTION H

SPECIAL CONTRACT REQUIREMENTS

H.1 LISTING OF CLAUSES INCORPORATED BY REFERENCE

I. FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1)

Clause Number	Title	Date
None included by reference.		

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

Clause Number	Title	Date
1852.208-81	Restrictions On Printing And Duplicating	Nov 2004
1852.223-76	Federal Automotive Statistical Tool Reporting	Jul 2003
1852.228-72	Cross Waiver of Liability for Space Shuttle Services	Sep 1993
1852.228-76	Cross Waiver of Liability for Space Station Activities	Dec 1994
1852.228-78	Cross Waiver of Liability for NASA Expendable Launch Vehicle (ELV) Launches	Sep 1993
1852.242-72	Observance Of Legal Holidays (Alternate II)	Oct 2000
1852.246-70	Mission Critical Space System Personnel Reliability Program	Mar 1997

(End of Clause)

H.2 ORGANIZATIONAL CONFLICTS OF INTEREST (OCI)

(a) Pursuant to FAR Part 9.504, the Contracting Officer is responsible for identifying and evaluating potential Organizational Conflicts of Interest during the acquisition process and either avoiding, neutralizing, or mitigating such conflicts before contract award. The Contracting Officer has determined that this acquisition may give rise to a potential organizational conflict of interest. Accordingly, the Contractor shall review FAR Subpart 9.5 – Organizational Conflicts of Interest, Clause H.3 "1852.209-71 Limitation of Future Contracting (Dec 1988)," and Clause K.3 "Certification Regarding Organizational Conflicts of Interest (OCI)".)

(b) The nature of this conflict is the following:

The S&MA Contractor, acting in a support role to the S&MA office, will be a primary source of safety, reliability, maintainability, and quality assurance (SRM&QA) analyses and will assist MSFC in the evaluation of the performance of MSFC program prime Contractors and major subcontractors. The S&MA Contractor will develop SRM&QA plans and procedures; analyze MSFC program Contractors' plans, procedures and practices; and perform assessments of those prime Contractor and major subcontractor plans, procedures and practices to assure that acceptable SRM&QA requirements exist on all MSFC programs. Therefore, the S&MA Contractor will occupy a highly influential and responsible position and must not be in a position to make decisions favoring its own capabilities at the prime or major subcontractor level. With the exception of subject matter experts in a subcontracting role, the S&MA Contractor (including S&MA teaming partners), subcontractor(s), or their respective parent, subsidiary or other affiliated or successor entity shall not have any connection with a prime contract or subcontract for the design, development, and/or delivery of space flight hardware, software, mission integration services or other critical systems related to MSFC.

(c) With respect to the use of subject matter experts in a subcontracting role, within two working days of receipt of a Task Order Request causing such a conflict to arise, the Contractor shall notify the Contracting Officer and provide a report detailing (in accordance DRD 1107MA-006):
(1) The nature of the conflict;
(2) Plan for avoiding, neutralizing, or mitigating the conflict; and
(3) The benefits and risks associated with acceptance of the plan.

(d) The Contracting Officer shall review the report and determine which of the following is in the best interest of the Government and shall so advise the Contractor:
(1) The subject matter expert shall perform consistent with the task order;
(2) The subject matter expert shall not perform the task order;
(3) The task order shall be cancelled or modified to remove the conflict, and/or work identified in the task order;
(4) The effort may be performed by other Government personnel, and/or the work may be obtained by the Government from another source not possessing a similar conflict of interest; or
(5) The Contractor may identify an alternative subject matter expert who can provide services consistent with the task order. Upon identification of an alternative subject matter expert, the Contractor must comply with the requirements of paragraph (c) herein and DRD 1107MA-006, if applicable.

(e) Any limitations on future contracting resulting from the Contractors or its subcontractor(s) in preparation of specifications/statements of work or access to proprietary, business confidential, or financial data of another company are identified in Clause H.3 "1852.209-71 Limitation of Future Contracting (Dec 1988)."

(f) The terms of this clause and application of this FAR Subpart to the contract are not subject to negotiation.

(g) The Contractor shall include this clause in all subcontract(s).

(End of clause)

H.3 1852.209-71 LIMITATION OF FUTURE CONTRACTING (DEC 1988)

(a) The Contracting Officer has determined that this acquisition may give rise to a potential organizational conflict of interest in regard to future contracts. Accordingly, the Contractor shall review FAR Subpart 9.5 -- Organizational Conflicts of Interest, Clause H.2 "Organizational Conflicts of Interest (OCI), " and Clause K.3 "Certification Regarding Organizational Conflicts of Interest (OCI)".)

(b) The S&MA Contractor, acting in a support role to the S&MA office, will be a primary source of safety, reliability, maintainability, and quality assurance (SRM&QA) analyses and will assist MSFC in the evaluation of the performance of MSFC program prime contractors and major subcontractors. The S&MA Contractor will develop SRM&QA plans and procedures; analyze MSFC program Contractors' plans, procedures and practices; and perform assessments of those prime contractor and major subcontractor plans, procedures and practices to assure that acceptable SRM&QA requirements exist on all MSFC programs. In addition, the S&MA Contractor may develop requirements for other competitive procurements; therefore, the S&MA Contractor will occupy a highly influential and responsible position and must not be in a position to make decisions favoring its own capabilities at the prime or subcontractor level.

(c) The restrictions upon future contracting are as follows:

(1) To the extent that work under this contract requires the Contractor to perform safety and mission assurance services and/or other related technical services on the design, development, and/or delivery of space flight hardware, software, mission integration services, or other critical systems related to MSFC, the S&MA Contractor and its related entities (including but not limited to teaming partners, subcontractors, their respective parents, subsidiaries, affiliates, or successor entities) shall be ineligible to participate on the prime contracts and subcontracts for the above-cited efforts related to MSFC for the duration of the initial contract. In addition, S&MA Contractor and its related entities shall not engage an entity, with the exception of subject matter experts in a subcontracting role, that has a prime contract or subcontract for the design, development, and/or delivery of space flight hardware, software, mission integration services or other critical systems related to MSFC for the life of the S&MA mission services contract.

(2) If the Contractor, under the terms of this contract or through the performance of tasks pursuant to this contract, is required to develop specifications or statements of work that are to be incorporated into a solicitation, the Contractor and its related entities shall be ineligible to perform the work described in that solicitation as a prime contractor or subcontractor under an ensuing MSFC contract. This restriction shall remain in effect for a reasonable time, as agreed to by the Contracting Officer and the Contractor, sufficient to avoid unfair competitive advantage or potential bias; however, this length of time shall in no case be less than the duration of the initial production contract. NASA shall not unilaterally require the Contractor to prepare such specifications or statements of work under this contract.

(3) To the extent that the work under this contract requires access to proprietary, business confidential, or financial data of other companies, and as long as these data remain proprietary or confidential, the Contractor and its related entities shall protect these data from unauthorized use and disclosure and agrees not to use them to compete with those other companies.

(d) This clause shall be read in accordance with Clauses H.2 "Organizational Conflicts of Interest (OCI)" and K.3 "Certification Regarding Organizational Conflicts of Interest (OCI)."

(End of clause)

H.4 1852.216-80 TASK ORDERING PROCEDURE (OCT 1996)

(a) Only the Contracting Officer may issue task orders to the Contractor (See Attachment J-10, Task Flow Process), providing specific authorization or direction to perform work within the scope of the contract and as specified in the schedule. The Contractor may incur costs under this contract in performance of task orders and task order modifications issued in accordance with this clause. No other costs are authorized unless otherwise specified in the contract or expressly authorized by the Contracting Officer.

(b) Prior to issuing a task 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 task plan 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_ calendar days after receipt of the Contracting Officer's request, the Contractor shall submit a task plan conforming to the request.

(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). This includes allocation of award fee among award fee periods, if applicable.

(6) Any other resources (travel, materials, equipment, facilities, etc.) authorized.

(7) Delivery/performance schedule including start and end dates.

(8) If contract funding is by individual task order, accounting and appropriation data.

(e) The Contractor shall provide acknowledgment of receipt to the Contracting Officer within _3_ calendar days after receipt of the task order.

(f) If time constraints do not permit issuance of a fully defined task order in accordance with the procedures described in paragraphs (a) through (d), a task order which includes a ceiling price may be issued.

(g) The Contracting Officer may amend tasks in the same manner in which they were issued.

(h) In the event of a conflict between the requirements of the task order and the Contractor's approved task plan, the task order shall prevail.

(End of clause)

H.5 SUPPLEMENTAL TASK ORDERING PROCEDURES

(a) This clause supplements the Task Ordering Procedure defined in H.4.

(b) All work [including Section J-1, Performance Work Statement (PWS), Paragraph 2.0] to be performed under this contract will be within the broad parameters of the PWS and more clearly defined in Task Orders (TOs) approved and issued at the PWS elements Level 3 or lower. An overview and flowchart of this process is provided at Attachment J-10.

(c) When the Government issues a Task Order Request (TOR) in accordance with paragraph (d) of Clause H.4, the Contractor shall prepare, as part of the Task Order Plan, the Contractor's estimate of the labor hours, labor categories, indirect cost, and other direct costs required to perform the Task Order requirements. In preparing the estimate, it is mutually agreed and understood that the Contractor or its Subcontractor(s) shall use the labor categories and the lower of the Contractor's/Subcontractor's actual rates or the Not-to-Exceed (NTE) rates set forth in Attachment J-9. It is further agreed and understood that the maximum available award fee and award term fee, equating to a percentage, set forth in Attachment J-9 shall be used by the Contractor to calculate the Maximum Potential Award Fee or Award Term Fee dollars for each Task Order.

(d) Each TO will include the period covered, estimated cost and maximum potential fees. At the end of each semi-annual award fee or award term fee evaluation period, the current evaluation period values (estimated cost and maximum potential fees) of all task orders that were active during that evaluation period will be summed and the resulting total value summation will be used as the maximum potential award fee or award term fee values for that evaluation period. A reconciling unilateral modification to the contract will be issued semiannually revising Clause B.2, Estimated Cost, and Award Fee, Award Term Fee to reflect the summation of the current total task order values.

(e) A summation of estimated and actual TO costs for each WBS element Level 3 shall be tracked by the Contractor in accordance with J-1, Paragraph 2.0, Management.

(f) The assigned CO and COTR will review and approve each TO and any revision thereto. The Government will provide a list of personnel to be included in the routing of TOs. The Government retains the right to disapprove any Task Order Plans (TOPs) at the sole discretion of the Government.

(g) The Contractor shall not begin work until the approved TO is received; however, in extreme emergency situations, the Contractor may be authorized by the CO to begin work immediately. The Contractor shall process the applicable TO within 5 calendar days of being notified of an emergency, and shall not incur costs exceeding $10,000 during the 5 day period, unless an advance waiver is granted by the Contracting

Officer. The Government and Contractor shall finalize the TO within 10 calendar days.

(h) Approval of TOs does not relieve the Contractor of its obligation under the "Limitation of Funds" clause and the "Availability of Funds" clauses of the contract.

(End of Clause)

H.6 TASK ORDER COST INCREASE NOTIFICATION REQUIREMENTS

(a) The requirements of this clause are in conjunction with the Limitation of Cost clause or the Limitation of Funds clause of this contract.

(b) The Contractor shall notify the Contracting Officer in writing when the Contractor has reason to believe that the total cost for performance of any individual task order, exclusive of any fee, will be either greater or substantially less than the total estimated cost stated in the task order. Notification shall not be delayed pending preparation of a revised estimate.

(c) A revised estimate is required to support a request for an increase in the estimated cost of a task order. The revised estimate should be submitted as soon as possible after the above notification but no later than 30 calendar days before the incurred costs are expected to exceed the estimated cost. This will allow adequate time for the Government to evaluate the revised estimate and to mutually establish any increase or decrease in estimated cost with the Contractor.

(d) (1) The revised estimate shall be submitted in the following format unless some other format is directed or approved by the Contracting Officer:

- Incurred costs to date
- Projected cost to completion
- Total cost at completion
- Current negotiated estimated cost
- Requested increase or decrease in estimated cost

(2) The "projected cost to completion" shall consist of the following "other than cost or pricing data" unless the Contracting Officer requests or approves the submittal of a greater or lesser amount of information:

(i) Elements of cost with supporting detail for estimated direct labor hours, direct and indirect rates, materials and subcontracts, and other elements.

(ii) Supporting explanation for the increases and projections, sufficient for the Government to understand the reasons for the increased estimated cost.

(End of clause)

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

(a) Safety is the freedom from those conditions that can cause death, injury, occupational illness, damage to or loss of equipment or property, or damage to the environment. NASA's safety priority is to protect: (1) the public, (2) astronauts and pilots, (3) the NASA workforce (including contractor employees working on NASA contracts), and (4) high-value equipment and property.

(b) The Contractor shall take all reasonable safety and occupational health measures in performing this contract. The Contractor shall comply with all Federal, State, and local laws applicable to safety and occupational health and with the safety and occupational health standards, specifications, reporting requirements, and any other relevant requirements of this contract.

(c) The Contractor shall take, or cause to be taken, any other safety, and occupational health measures the Contracting Officer may reasonably direct. To the extent that the Contractor may be entitled to an equitable adjustment for those measures under the terms and conditions of this contract, the equitable adjustment shall be determined pursuant to the procedures of the changes clause of this contract; provided, that no adjustment shall be made under this Safety and Health clause for any change for which an equitable adjustment is expressly provided under any other clause of the contract.

(d) The Contractor shall immediately notify and promptly report to the Contracting Officer or a designee any accident, incident, or exposure resulting in fatality, lost-time occupational injury, occupational disease, contamination of property beyond any stated acceptable limits set forth in the contract Schedule; or property loss of $25,000 or more, or Close Call (a situation or occurrence with no injury, no damage or only minor damage (less than $1,000) but possesses the potential to cause any type mishap, or any injury, damage, or negative mission impact) that may be of immediate interest to NASA, arising out of work performed under this contract. The Contractor is not required to include in any report an expression of opinion as to the fault or negligence of any employee. In addition, service contractors (excluding construction contracts) shall provide quarterly reports specifying lost-time frequency rate, number of lost-time injuries, exposure, and accident/incident dollar losses as specified in the contract Schedule.

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

(f) (1) The Contracting Officer may notify the Contractor in writing of any noncompliance with this clause and specify corrective actions to be taken. When

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

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

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

1. The work will be conducted completely or partly on premises owned or controlled by the Government.
2. The work includes construction, alteration, or repair of facilities in excess of the simplified acquisition threshold.
3. The work, regardless of place of performance, involves hazards that could endanger the public, astronauts and pilots, the NASA workforce (including Contractor employees working on NASA contracts), or high value equipment or property, and the hazards are not adequately addressed by Occupational Safety and Health Administration (OSHA) or Department of Transportation (DOT) regulations (if applicable).
4. When the Contractor (or subcontractor or supplier) determines that the assessed risk and consequences of a failure to properly manage and control the hazard(s) warrants use of the clause.

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

(i) Authorized Government representatives of the Contracting Officer shall have access to and the right to examine the sites or areas where work under this contract is being

performed in order to determine the adequacy of the Contractor's safety and occupational health measures under this clause.

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

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

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

(End of Clause)

H.8 1852.223-75 MAJOR BREACH OF SAFETY OR SECURITY (FEB 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. Safety is essential to NASA and is a material part of this contract. 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. A major breach of safety may constitute a breach of contract that entitles the Government to exercise any of its rights and remedies applicable to material parts of this contract, including termination for default. A major breach of safety must be related directly to the work on the contract. A major breach of safety is an act or omission of the Contractor that consists of an accident, incident, or exposure resulting in a fatality or mission failure; or in damage to equipment or property equal to or greater than $1 million; or in any "willful" or "repeat" violation cited by the Occupational Safety and Health Administration (OSHA) or by a state agency operating under an OSHA approved plan.

(b) Security is the condition of safeguarding against espionage, sabotage, crime (including computer crime), or attack. A major breach of security may constitute a breach of contract that entitles the Government to exercise any of its rights and remedies applicable to material parts of this contract, including termination for default. A major breach of security may occur on or off Government installations, but must be related directly to the work on the contract. A major breach of security is an act or omission by the Contractor that results in compromise of classified information, illegal technology transfer, workplace violence resulting in criminal conviction, sabotage, compromise or denial of information technology services, equipment or property damage from vandalism greater than $250,000, or theft greater than $250,000.

(c) In the event of a major breach of safety or security, the Contractor shall report the breach to the Contracting Officer. If directed by the Contracting Officer, the Contractor shall conduct its own investigation and report the results to the Government. The Contractor shall cooperate with the Government investigation, if conducted.

(End of Clause)

H.9 1852.225-70 EXPORT LICENSES (FEB 2000)

(a) The Contractor shall comply with all U.S. export control laws and regulations, including the International Traffic in Arms Regulations (ITAR), 22 CFR Parts 120 through 130, and the Export Administration Regulations (EAR), 15 CFR Parts 730 through 799, in the performance of this contract. In the absence of available license exemptions/exceptions, the Contractor shall be responsible for obtaining the appropriate licenses or other approvals, if required, for exports of hardware, technical data, and software, or for the provision of technical assistance.

(b) The Contractor shall be responsible for obtaining export licenses, if required, before utilizing foreign persons in the performance of this contract, including instances where the work is to be performed on-site at MSFC, AL where the foreign person will have access to export-controlled technical data or software.

(c) The Contractor shall be responsible for all regulatory record keeping requirements associated with the use of licenses and license exemptions/exceptions.

(d) The Contractor shall be responsible for ensuring that the provisions of this clause apply to its subcontractors.

(ALTERNATE I) (FEB 2000)

(e) The Contractor may request, in writing, that the Contracting Officer authorize it to export ITAR-controlled technical data (including software) pursuant to the exemption at 22 CFR 125.4(b)(3). The Contracting Officer or designated representative may authorize or direct the use of the exemption where the data does not disclose details of the design, development, production, or manufacture of any defense article.

(End of Clause)

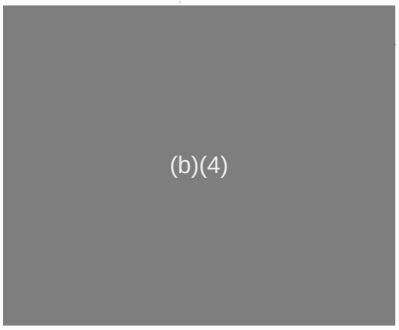
H.10 Reserved

H.11 1852.235-71 KEY PERSONNEL AND FACILITIES (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.



(End of Clause)

H.12 MSFC 52.223-90 ASBESTOS MATERIAL (JUN 2002)

During performance of this contract, Contractor personnel performing work in MSFC buildings may come in contact with materials containing asbestos. MSFC Buildings 4200, 4201, 4202, 4663 and 4666 are of special concern since they are known to contain a sprayed on fire insulation on or above the ceiling, usually located on the metal or concrete structure of the buildings. These buildings and all other MSFC buildings may contain asbestos in floor tile, pipe and lagging insulation, exterior siding, roofing felt, and many other building materials. Prior to disturbing suspected asbestos material in any manner, the Contractor shall notify MSFC's Occupational Medicine and Environmental Health Services, for guidance. Contractor shall be responsible for ensuring that all Contractor personnel working onsite are made aware of and comply with this clause.

(End of Clause)

H.13 MSFC 52.223-91 HAZARDOUS MATERIAL REPORTING (AUG 2005)

(a) If during the performance of this contract, the Contractor transports or accepts delivery of any hazardous materials (hazardous as defined under the latest version of Federal Standard No. 313, including revisions adopted during the term of the contract) on-site to Marshall Space Flight Center, the hazardous material shall be processed through MSFC Central Receiving to be bar-coded for inventory. Chemical containers shall be managed in accordance with the provisions of MWI 8550.5, "Hazardous Material Management." The Contractor shall be responsible for ensuring that all Contractor/subcontractor personnel are made aware of and comply with this clause.

(b) Nothing contained in this clause shall relieve the Contractor from complying with applicable Federal, State, and local laws, codes, ordinances, and regulations (including the obtaining of licenses and permits) in connection with hazardous material; or with clauses regarding hazardous materials, which may be contained in the order.

(End of clause)

H.14 1852.237-72 ACCESS TO SENSITIVE INFORMATION (JUN 2005)

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

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

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

(1) Utilize any sensitive information coming into its possession only for the purposes of performing the services specified in this contract, and not to improve its own competitive position in another procurement.

(2) Safeguard sensitive information coming into its possession from unauthorized use and disclosure.

(3) Allow access to sensitive information only to those employees that need it to perform services under this contract.

(4) Preclude access and disclosure of sensitive information to persons and entities outside of the Contractor's organization.

(5) Train employees who may require access to sensitive information about their obligations to utilize it only to perform the services specified in this contract and to safeguard it from unauthorized use and disclosure.

(6) Obtain a written affirmation from each employee that he/she has received and will comply with training on the authorized uses and mandatory protections of sensitive information needed in performing this contract.

(7) Administer a monitoring process to ensure that employees comply with all reasonable security procedures, report any breaches to the Contracting Officer, and implement any necessary corrective actions.

(d) The Contractor will comply with all procedures and obligations specified in its Organizational Conflicts of Interest 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)

H.15 1852.237-73 RELEASE OF SENSITIVE INFORMATION (JUN 2005)

(a) As used in this clause, "sensitive information" refers to information, not currently in the public domain, that the Contractor has developed at private expense, that may embody trade secrets or commercial or financial information, and that may be sensitive or privileged.

(b) In accomplishing management activities and administrative functions, NASA relies heavily on the support of various service providers. To support NASA activities and functions, these service providers, as well as their subcontractors and their individual employees, may need access to sensitive information submitted by the Contractor under this contract. By submitting this proposal or performing this contract, the Contractor agrees that NASA may release to its service providers, their subcontractors, and their individual employees, sensitive information submitted during the course of this procurement, subject to the enumerated protections mandated by the clause at 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 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 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 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)

H.16 SECURITY/BADGING REQUIREMENTS FOR FOREIGN NATIONAL VISITORS AND EMPLOYEES OF FOREIGN CONTRACTORS

(a) An employee of a domestic Marshall Space Flight Center (MSFC) contractor or its subcontractor who is not a U.S. citizen (foreign national) may not be admitted to the MSFC site for purposes of performing work without special arrangements. In addition, all employees or representatives of a foreign MSFC contractor/subcontractor may not be admitted to the MSFC site without special arrangements. For employees as described above, advance notice must be given to the MSFC Protective Services Office at least 3 weeks prior to the scheduled need for access to the site so that instructions on obtaining access may be provided.

(b) All visit/badge requests for persons described in (a) above must be entered in the NASA Request for Request (RFR) and Foreign National Management System (NFNMS) for acceptance, review, concurrence and approval purposes. When an authorized company official requests a MSFC 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. The authorized company officials shall serve as the contractor's representative(s) in certifying that all visit/badge request forms are processed in accordance with MSFC security and export control procedures. No foreign national, representative, or resident alien contractor/subcontractor employee shall be granted access into MSFC until a completed RFR has been approved and processed through the NFNMS. Unescorted

access will not be granted unless the MSFC Protective Services Office has completed a favorable National Agency Check (NAC).

(c) The contractor agrees that it will not employ for the performance of work onsite at the MSFC any individuals who are not legally authorized to work in the United States. If the MSFC 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 the MSFC Protective Services 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 MSFC 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 MSFC or any other Center to be visited.

(End of Clause)

H.17 SAFETY PERFORMANCE EVALUATION

1. **Contractor Responsibility**. The Contractor is responsible for maintaining an effective safety program during the course of the contract with a goal to achieve a world-class program within the term of the contract. The Contractor will ensure that the requirements of the MSFC approved Contractor's Safety, Health, and Environmental (SHE) Plan and applicable Data Requirement Documents (1107SA-001, 1107SA-002, and 1107SA-003) are met. Contractor safety performance evaluation will be based on the MSFC safety program elements. The Contractor shall conduct a quarterly self-evaluation based on these criteria. The CO/COTR, in coordination with the MSFC Safety Office, will validate the Contractor's self-evaluation. Every quarter, the agreed score will be used to assess performance appropriately—positive or negative. For the purpose of assessing the quarterly score, the Contractor and the CO/COTR, in coordination with the MSFC Safety Office, will reach a mutually agreeable determination based on the metrics reflected in the attachment. In cases where the Contractor and CO/COTR cannot reach agreement, the MSFC Ombudsman will hear arguments from both sides and make a final decision. This process shall not preclude the Contracting Officer from taking immediate action for any serious, willful, blatant, or continued violations of MSFC safety policy or procedures.

2. **Evaluation Criteria**. Contractor self-evaluation and Government validation will be based on the applicable elements and sub-elements of the MSFC safety program shown below. Specific criteria are shown on Attachment J-14 entitled "Safety Health Management Implementation Guide and Assessment Matrix." Deviations from the matrix criteria may be made, for cause, and must be approved by the COTR, CO and Government Safety Representative. It should be noted that Element 1 has a management and an employee component. These are simply averaged to obtain the score for Element. The result should be carried to the second decimal point.

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Management Commitment and Employee Involvement (ELEMENT 1)	Hazard Prevention and Control (ELEMENT 3)
Documented Safety Policy and Goals	Hazard Identification Process
Safety Committees	Facility and Equipment Maintenance
Safety Meetings	Emergency Program and Drills
Subcontractor Safety	Emergency Medical Care Program
Resources	Personal Protective Equipment
Access to Professional Safety Staff	Health Program
Accountability (Disciplinary Program)	
Annual Evaluation	

System and Worksite Hazard Analysis (ELEMENT 2)	Safety and Health Training (ELEMENT 4)
Complete and Update Baseline Surveys	Employee
Performance Analysis of New Work	Supervisor
Job Hazard Analysis/Process Review	Manager
Self-Inspection	
Employee Hazard Reporting	
Mishap/Close Call Investigation	
Injury/Illness Rates	

3. **Performance Recognition.** Contractor performance will be recognized as follows:

- **Level I** – Annual rating score of ≥ 36 based on the average of the quarterly assessment scores, and a lost-Time Incident Rate (LTIR) ≤ 50% of the LTIR for the applicable North American Industrial Classification System (NAICS) rate.

  Formal award with public recognition

  Appropriate past performance referral provided.

Exception: *Contractors with less than 100 employees located onsite MSFC.* To be rated in Level I, the Contractor shall have no lost time injuries during the past year.

- **Level II** – Annual rating score of ≥ 28 based on the average quarterly assessment score, and a Lost-Time Incident Rate (LTIR) < the applicable North American Industrial Classification System (NAICS) rate and the scores remain the same, or

  Formal Letter of Commendation

  Will impact contract evaluation and past performance referrals.

reflect improved performance, from the previous period. If scores reflect a decrease in performance, no letter of commendation will be issued.

Exception: *Contractors with less than 100 employees located onsite MSFC.* To be rated in Level II, the Contractor shall have no more than one lost time injury during the past year.

• **Level III** – Quarterly rating score of ≤ 16 or a Lost Time Incident Rate (LTIR) ≥ than the North American Industrial Classification System (NAICS) rate.	*Formal letter expressing concern. Corrective Action Plan Requested. Data Placed in Past Performance Database.* **Failure to improve could result in contract options not being exercised.**

Exception: Contractors with less than 100 employees located onsite MSFC. *A Level III rating will be given to a contractor having greater than two lost time injuries during the past year.*

• If contractor's Safety Performance evaluation does not fall within the above categories.	*No recognition.*

NOTE: The most current Department of Labor NAICS rate, effective at the beginning of the annual evaluation period, will be utilized for LTIR evaluation. Lost Time Incidents shall be recorded in accordance with NASA requirements specified in MWI 8621.1, "Close Call and Mishap Reporting and Investigation Program." Final decisions on any disputed lost time injury determinations will be handled by established Government regulatory procedures.

4. **Contractor Accountability for Mishaps.** The Contractor shall not be held accountable for injuries to their personnel or damage to the property they control that is caused by individuals or situations clearly outside the control of their contract.

5. **Evaluation Process.** The evaluation process will be based on the major elements and their sub-elements cited in Paragraph 2. The evaluation process will include these steps:
   - Contractor to conduct quarterly self-assessment and assign numerical score to each element.
   - Contractor self-assessments will address compliance with their approved Safety, Health, and Environmental (SHE) Plan.
   - Contractor to have self-assessment validated by CO/ COTR and S&MA Directorate.
   - On an annual basis, the Contracting Officer will apply contract incentives/recognition or consequences based on the average quarterly scores.

- The Contracting Officer will make a determination on a quarterly basis for items requested in paragraph 6 that are not reported. (Also, see paragraph 7 below.)

The evaluation process will use the Safety Health Management Implementation Guide and Assessment Matrix at Attachment J-14.

6. **Safety Metric Reporting.** The Contractor shall utilize MSFC Form 4371 to submit, on a monthly basis, information on all personnel and property mishaps that meet the criteria of a NASA Recordable Mishap (NPG 8621.1). Close calls and minor cases, including first aid and non-injury cases, shall be reported when there is a potential lessons learned or when action needs to be taken to prevent more serious damage, loss, or personal injury, (including communication of the incident to promote employee awareness). The report shall also include total hours worked and the number of safety inspections and safety meetings conducted during the month.

   The Contractor shall also utilize NASA Form 1627 to include details of any mishap, results of the investigation, and the corrective action plan.

7. **Failure to Report.** If the Contractor fails to report the items in paragraph 6 above in accordance with this contract, an amount of $1,000 will be deducted for each occurrence of failure to report the required data.

(End of Clause)

H.18 AWARD TERM (JAN 2006)

(a) Period of Performance (PoP): The basic contract period of performance will be one two (2) year base period plus three (3) one (1) year options for a total of five (5) years, which may be increased in accordance with the contract's approved Award Fee/Award Term (AF/AT) Performance Evaluation Plan (AF/AT PEP). The PoP may be increased up to an additional five years, to a maximum of (10) ten years from the date of contract award. These increases to the basic contract period will be made by the Government based upon the Contractor's performance evaluated in accordance with the AF/AT PEP.

(b) AF/AT PEP: The AF/AT PEP will be finalized by NASA and provided to the Contractor during the phase-in period. The AF/AT PEP will serve as the basis for any award term decisions. The AF/AT PEP may be unilaterally revised by the Government and re-issued by the CO to the Contractor prior to the commencement of any 6-month evaluation period. An Award Fee/Award Term Determination Official (FTDO) shall be appointed by the Government and is responsible for the overall award fee and award term evaluations.

(c) Award Term Administration: During award term decision years (CYs 3, 6, and 8), the award term evaluation will be completed on an annual basis. The annual evaluation will consist of two successive 6-month "interim" evaluations that will be combined (averaged) to obtain the "final" annual adjective rating. The first two (2) years of the contract will be evaluated on a "shadow" basis where the performance results will not be used in making an award term decision. Award term decisions that affect the period of performance beyond the basic contract will commence in the third contract year and will conclude at the end of contract year eight, if all award term periods have been awarded.

(d) Award Term Decisions: For the evaluation periods at the conclusion of contract years 3, 6 and 8, the final annual adjectival rating must be an "Excellent" for the Contractor to receive additional contract term. For the evaluation periods at the end years 4, 5, and 7, annual adjective rating must also be an "Excellent" for the Contractor to maintain all previously earned contract term.

(e) Cancellation: The Government may cancel any unearned award term periods by providing written notice to the contractor not less than 60 days before the start of an annual contract year, this cancellation will not entitle the Contractor to any termination settlement or any other compensation.

(f) Re-competition Decision: If the average Award Term rating during any yearly evaluation period is determined to be "very good" (an average numerical score of 90, or below), the contract goes into a re-competition mode per the AF/AT PEP. This clause does not apply to the shadow year period(s) (year one (1) and year two (2)).

(g) Award Term Extension. If the annual award term evaluations result in an increase or decrease to the period of performance, a unilateral modification will be executed by the Government to reflect the increase or decrease in total contract value. Any increase or decrease to the contract value will be in accordance with the priced periods stated in Section B. In no event will the contract be extended beyond the 10-year period of performance via the award term process.

(End of Clause)

[END OF SECTION]

PART II - CONTRACT CLAUSES

SECTION I

CONTRACT CLAUSES

I.1 LISTING OF CLAUSES INCORPORATED BY REFERENCE

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

FAR Clauses: http://www.arnet.gov/far/

NASA FAR Supplement clauses:
http://www.hq.nasa.gov/office/procurement/regs/nfstoc.htm

MSFC Clauses: http://ec.msfc.nasa.gov/msfc/msfc_uni.html

PART A: Federal Acquisition Regulation (48 CFR Chapter 1)

Number	Clause Title	Date
52.202-1	Definitions	Jul 2004
52.203-3	Gratuities	Apr 1984
52.203-5	Covenant Against Contingent Fees	Apr 1984
52.203-6	Restrictions on Subcontractor Sales to the Government	Jul 1995
52.203-7	Anti-Kickback Procedures	Jul 1995
52.203-8	Cancellation, Rescission, and Recovery of Funds for Illegal or Improper Activity	Jan 1997
52.203-10	Price or Fee Adjustment for Illegal or Improper Activity	Jan 1997
52.203-12	Limitation on Payments to Influence Certain Federal Transactions	Jun 2003
52.204-2	Security Requirements	Aug 1996
52.204-4	Printed or Copied Double-Sided on Recycled Paper	Aug 2000
52.204-7	Central Contract Registration	Oct 2003
52.209-6	Protecting the Government's Interest When Subcontracting with Contractors Debarred, Suspended, or Proposed for Debarment	July 1995
52.211-15	Defense Priority and Allocation Requirements	Sep 1990
52.215-2	Audit and Records – Negotiation	Jun 1999
52.215-8	Order of Precedence – Uniform Contract Format	Oct 1997
52.215-9	Changes or Additions to Make-or-Buy Program	Oct 1997
52.215-12	Subcontractor Cost or Pricing Data	Oct 1997

Number	Clause Title	Date
52.215-13	Subcontractor Cost or Pricing Data – Modifications	Oct 1997
52.215-14	Integrity of Unit Prices	Oct 1997
52.215-15	Pension Adjustments and Asset Reversions	Oct 2004
52.215-17	Waiver of Facilities Capital Cost of Money	Oct 1997
52.215-18	Reversion or Adjustment of Plans for Postretirement	Oct 1997
52.215-19	Notification of Ownership Changes	Oct 1997
52-215.21	Requirements for Cost or Pricing Data or Information Other Than Cost or Pricing Data – Modifications	Oct 1997
52.215-21	Requirements for Cost or Pricing Data or Information Other Than Cost or Pricing Data – Modifications (Alternate I) "Microsoft Excel (PC Compatible)"	Oct 1997
52.215-21	Requirements for Cost or Pricing Data or Information Other Than Cost or Pricing Data – Modifications (Alternate II-Oct 97 – Send copies to cognizant DCAA) (Alternate III-Oct 97- MS word and excel transmitted via e-mail.	Oct 1997
52.216-7	Allowable Cost and Payment	Dec 2002
52.217-8	Option to Extend Services "30 days"	Nov 1999
52.219-6	Notice of Total Small Business Set-Aside	Jul 1996
52.219-16	Liquidated Damages-Subcontracting Plan	Jan 1999
52.222-1	Notice to the Government of Labor Disputes	Feb 1997
52.222-2	Payment for Overtime Premiums "See Section B"	Jul 1990
52.222-3	Convict Labor	Jun 2003
52.222-4	Contract Work Hours and Safety Standards Act – Overtime Compensation	Sep 2000
52.222-21	Prohibition of Segregated Facilities	Feb 1999
52.222-26	Equal Opportunity	Apr 2002
52.222-35	Equal Opportunity for Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans	Dec 2001
52.222-36	Affirmative Action for Workers with Disabilities	Jun 1998
52.222-37	Employment Reports on Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans	Dec 2001
52.222-38	Compliance with Veteran's Employment Reporting Requirements	Dec 2001
52.222-41	Service Contract Act of 1965, As Amended	May 1989
52.223-5	Pollution Prevention and Right-to-Know Information	Aug 2003
52.223-5	Pollution Prevention and Right-to-Know Information (Alternate I)	Aug 2003
52.223-5	Pollution Prevention and Right-to-Know Information (Alternate II)	Aug 2003
52.223-6	Drug-Free Workplace	May 2001
52.223-10	Waste Reduction Program	Aug 2000
52.223-12	Refrigeration Equipment and Air Conditioners	May 1995

Number	Clause Title	Date
52.223-13	Certificate of Toxic Chemical Release Reporting	Aug 2003
52.223-14	Toxic Chemical Release Reporting	Aug 2003
52.224-1	Privacy Act Notification	Apr 1984
52.224-2	Privacy Act	Apr 1984
52.225-13	Restrictions on Certain Foreign Purchases	Dec 2003
52.227-11	Patent Rights—Retention by the Contractor (Short Form)	Jun 1997
52.227-14	Rights In Data-General-As modified by NASA FAR Supplement (NFS) 1852.227-14	Oct 1995
52.227-16	Additional Data Requirements	Jun 1987
52.228-7	Insurance-Liability To Third Persons	Mar 1996
52.230-2	Cost Accounting Standards	Apr 1998
52.230-3	Disclosure And Consistency Of Cost Accounting Practices	Apr 1998
52.230-6	Administration Of Cost Accounting Services	Nov 1999
52.232-9	Limitation On Withholding Of Payments	Apr 1984
52.232-17	Interest	Jun 1996
52.232-18	Availability of Funds	Apr 1984
52.232-19	Availability of Funds for the Next Fiscal Year "September 30, 2007"	Apr 1984
52.232-22	Limitation Of Funds	Apr 1984
52.232-23	Assignment Of Claims	Jan 1986
52.232-24	Prohibition Of Assignment Of Claims	Jan 1986
52.232-25	Prompt Payment	Oct 2003
52.232-25	Prompt Payment (Alternate I)	Feb 2002
52.232-33	Payment By Electronic Funds Transfer- Central Contractor Registration	Oct 2003
52.232-34	Payment By Electronic Funds Transfer- Other Than Central Contractor Registration	May 1999
52.232-35	Designation Of Office For Government Receipt Of Electronic Funds Transfer Information	May 1999
52.233-1	Disputes	Jul 2002
52.233-1	Disputes (Alternate I)	Dec 1991
52.233-3	Protest After Award	Aug 1996
52.233-3	Protest After Award (Alternate I)	Jun 1985
52.233-4	Applicable Law for Breach of Contract Claim	Oct 2004
52.237-2	Protection Of Government Buildings, Equipment, And Vegetation	Apr 1984
52.237-3	Continuity of Services	Jan 1991
52.239-1	Privacy Or Security Safeguards	Aug 1996
52.242-1	Notice Of Intent To Disallow Costs	Apr 1984
52.242-3	Penalties For Unallowable Costs	May 2001
52.242-4	Certification Of Final Indirect Costs	Jan 1997
52.242-13	Bankruptcy	Jul 1995
52.243-2	Changes-Cost Reimbursement	Aug 1987

Number	Clause Title	Date
52.243-2	Changes-Cost Reimbursement (Alternate II)	Apr 1984
52.244-5	Competition In Subcontracting	Dec 1996
52.244-6	Subcontracts for Commercial Items	Feb 2006
52.245-1	Property Records	Apr 1984
52.245-5	Government Property (Cost-Reimbursement, Time-And-Material or Labor-Hour Contracts)	May 2004
52.246-25	Limitation Of Liability-Services	Feb 1997
52.247-63	Preference for U.S.-Flag Air Carriers	Jun 2003
52.248-1	Value Engineering	Feb 2000
52.249-6	Termination (Cost-Reimbursement)	May 2004
52.251-1	Government Supply Sources Interagency	Apr 1984
52.251-2	Fleet Management System Vehicles And Related Services	Jan 1991
52.253-1	Computer Generated Forms	Jan 1991

(End of Clause)

PART B: NASA FAR SUPPLEMENT (48 CFR CHAPTER 18) CLAUSES

Number	Clause Title	Date
1852.203-70	Display of Inspector General Hotline Posters	Jun 2001
1852.216-89	Assignment and Release Forms	Jul 1997
1852.219-74	Use of Rural Area Small Businesses	Sep 1990
1852.219-75	Small Business Subcontracting Reporting	May 1999
1852.219-77	NASA Mentor-Protégé Program	May 1999
1852.223-74	Drug and Alcohol-Free Workforce	Mar 1996
1852.227-11	Patent Rights--Retention by the Contractor (Short Form)	No Date
1852.227-14	Rights in Data--General **Modifies FAR Clause**	No Date
1852.227-19	Commercial Computer Software—Restricted Rights **Modifies FAR Clause**	No Date
1852.227-70	New Technology	May 2002
1852.227-71	Requests for Waiver of Rights to Inventions.	Apr 1984
1852.227-72	Designation of New Technology Representative and Patent Representative	Jul 1997
1852.227-86	Commercial Computer Software—Licensing	Dec 1987
1852.237-70	Emergency Evacuation Procedures	Dec 1988
1852.242-78	Emergency Medical Services and Evacuation	Apr 2001
1852.243-71	Shared Shavings	Mar 1997
1852.245-70	Contractor Requests for Government-Owned Equipment	Jul 1997

(End of Clause)

I.2 MSFC 52.252-90 REPRESENTATIONS, CERTIFICATIONS, AND OTHER STATEMENTS OF OFFERORS OR QUOTERS INCORPORATED BY REFERENCE (FEB 2001)

The Representations, Certifications, and Other Statements of Offerors or Quoters (Section K of the solicitation document) as completed by the Contractor are hereby incorporated in their entirety by reference, with the same force and effect as if they were given in full text.

(End of Clause)

I.3 1852.204-75 SECURITY CLASSIFICATION REQUIREMENTS (SEP 1989)

Performance under this contract will involve access to and/or generation of classified information, work in a security area, or both, up to the level of "Secret". See Federal Acquisition Regulation clause 52.204-2 in this contract and DD Form 254, Contract Security Classification Specification, Attachment J-12

(End of Clause)

I.4 1852.204-76 SECURITY REQUIREMENTS FOR UNCLASSIFIED INFORMATION TECHNOLOGY RESOURCES (NOV 2004)

(a) The Contractor shall be responsible for Information Technology security for all systems connected to a NASA network or operated by the Contractor for NASA, regardless of location. This clause is applicable to all or any part of the contract that includes information technology resources or services in which the Contractor must have physical or electronic access to NASA's sensitive information contained in unclassified systems that directly support the mission of the Agency. This includes information technology, hardware, software, and the management, operation, maintenance, programming, and system administration of computer systems, networks, and telecommunications systems. Examples of tasks that require security provisions include:

(1) Computer control of spacecraft, satellites, or aircraft or their payloads;

(2) Acquisition, transmission or analysis of data owned by NASA with significant replacement cost should the contractor's copy be corrupted; and

(3) Access to NASA networks or computers at a level beyond that granted the general public, e.g. bypassing a firewall.

(b) The Contractor shall provide, implement, and maintain an IT Security 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. The plan shall describe those parts of the contract to which this clause

applies. The Contractor's IT Security Plan shall be compliant with Federal laws that include, but are not limited to, the Computer Security Act of 1987 (40 U.S.C. 1441 et seq.) and the Government Information Security Reform Act of 2000. The plan shall meet IT security requirements in accordance with Federal and NASA policies and procedures that include, but are not limited to:

(1) OMB Circular A-130, Management of Federal Information Resources, Appendix III, Security of Federal Automated Information Resources;

(2) NASA Procedures and Requirements (NPR) 2810.1, Security of Information Technology; and

(3) Chapter 3 of NPR 1620.1, NASA Security Procedural Requirements.

(c) Within 45 days after contract award, the contractor shall submit for NASA approval an IT Security Plan. This plan must be consistent with and further detail the approach contained in the offeror's proposal or sealed bid that resulted in the award of this contract and in compliance with the requirements stated in this clause. The plan, as approved by the Contracting Officer, shall be incorporated into the contract as a compliance document.

(d) (1) Contractor personnel requiring privileged access or limited privileged access to systems operated by the Contractor for NASA or interconnected to a NASA network shall be screened at an appropriate level in accordance with NPR 2810.1, Section 4.5; NPR 1620.1, Chapter 3; and paragraph (d)(2) of this clause. Those Contractor personnel with non-privileged access do not require personnel screening. NASA shall provide screening using standard personnel screening National Agency Check (NAC) forms listed in paragraph (d)(3) of this clause, unless contractor screening in accordance with paragraph (d)(4) is approved. The Contractor shall submit the required forms to the NASA Center Chief of Security (CCS) within fourteen (14) days after contract award or assignment of an individual to a position requiring screening. The forms may be obtained from the CCS. At the option of the government, interim access may be granted pending completion of the NAC.

(2) Guidance for selecting the appropriate level of screening is based on the risk of adverse impact to NASA missions. NASA defines three levels of risk for which screening is required (IT-1 has the highest level of risk):

(i) IT-1 -- Individuals having privileged access or limited privileged access to systems whose misuse can cause very serious adverse impact to NASA missions. These systems include, for example, those that can transmit commands directly modifying the behavior of spacecraft, satellites or aircraft.

(ii) IT-2 -- Individuals having privileged access or limited privileged access to systems whose misuse can cause serious adverse impact to NASA missions. These systems include, for example, those that can transmit commands

directly modifying the behavior of payloads on spacecraft, satellites or aircraft; and those that contain the primary copy of "level 1" data whose cost to replace exceeds one million dollars.

(iii) IT-3 -- Individuals having privileged access or limited privileged access to systems whose misuse can cause significant adverse impact to NASA missions. These systems include, for example, those that interconnect with a NASA network in a way that exceeds access by the general public, such as bypassing firewalls; and systems operated by the contractor for NASA whose function or data has substantial cost to replace, even if these systems are not interconnected with a NASA network.

(3) Screening for individuals shall employ forms appropriate for the level of risk as follows:

(i) IT-1: Fingerprint Card (FC) 258 and Standard Form (SF) 85P, Questionnaire for Public Trust Positions;

(ii) IT-2: FC 258 and SF 85, Questionnaire for Non-Sensitive Positions; and

(iii) IT-3: NASA Form 531, Name Check, and FC 258.

(4) The Contracting Officer may allow the Contractor to conduct its own screening of individuals requiring privileged access or limited privileged access provided the Contractor can demonstrate that the procedures used by the Contractor are equivalent to NASA's personnel screening procedures. As used here, equivalent includes a check for criminal history, as would be conducted by NASA, and completion of a questionnaire covering the same information as would be required by NASA.

(5) Screening of contractor personnel may be waived by the Contracting Officer for those individuals who have proof of –

(i) Current or recent national security clearances (within last three years);

(ii) Screening conducted by NASA within last three years; or

(iii) Screening conducted by the Contractor, within last three years, that is equivalent to the NASA personnel screening procedures as approved by the Contracting Officer under paragraph (d)(4) of this clause.

(e) The Contractor shall ensure that its employees, in performance of the contract, receive annual IT security training in NASA IT Security policies, procedures, computer ethics, and best practices in accordance with NPR 2810.1, Section 4.3 requirements. The contractor may use web-based training available from NASA to meet this requirement.

(f) The Contractor shall afford NASA, including the Office of Inspector General, 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, investigation and audit to safeguard against threats and hazards to the integrity, availability and confidentiality of NASA data or to the function of computer systems operated on behalf of NASA, and to preserve evidence of computer crime.

(g) The Contractor shall incorporate the substance of this clause in all subcontracts that meet the conditions in paragraph (a) of this clause.

(End of Clause)

I.5 1852.215-84 OMBUDSMAN (OCT 2003)

(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, Ms. Robin N. Henderson, George C. Marshall Space Flight Center, DE01, Building 4200, Marshall Space Flight Center, AL 35812, telephone: 256-544-1919, facsimile: 256-544-7920, and e-mail address: Robin.N.Henderson@nasa.gov.

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, at 202-358-0445, facsimile 202-358-3083, e-mail, james.a.balinskas@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.

(ALTERNATE I) (JUN 2000)

(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.

(End of Clause)

I.6 Reserved

I.7 1852.228-75 MINIMUM INSURANCE COVERAGE (OCT 1988)

The Contractor shall obtain and maintain insurance coverage as follows for the performance of this contract:

(a) Worker's compensation and employer's liability insurance as required by applicable Federal and state workers' compensation and occupational disease statutes. If occupational diseases are not compensable under those statutes, they shall be covered under the employer's liability section of the insurance policy, except when contract operations are so commingled with the Contractor's commercial operations that it would not be practical. The employer's liability coverage shall be at least $100,000, except in States with exclusive or monopolistic funds that do not permit workers' compensation to be written by private carriers.

(b) Comprehensive general (bodily injury) liability insurance of at least $500,000 per occurrence.

(c) Motor vehicle liability insurance written on the comprehensive form of policy which provides for bodily injury and property damage liability covering the operation of all motor vehicles used in connection with performing the contract. Policies covering motor vehicles operated in the United States shall provide coverage of at least $200,000 per person and $500,000 per occurrence for bodily injury liability and $20,000 per occurrence for property damage. The amount of liability coverage on other policies shall be commensurate with any legal requirements of the locality and sufficient to meet normal and customary claims.

(d) Comprehensive general and motor vehicle liability policies shall contain a provision worded as follows:

> "The insurance company waives any right of subrogation against the United States of America which may arise by reason of any payment under the policy."

(e) When aircraft are used in connection with performing the contract, aircraft public and passenger liability insurance of at least $200,000 per person and $500,000 per occurrence for bodily injury, other than passenger liability, and $200,000 per occurrence for property damage. Coverage for passenger liability bodily injury shall be at least $200,000 multiplied by the number of seats or passengers, whichever is greater.

(End of Clause)

I.8 1852.243-70 ENGINEERING CHANGE PROPOSALS (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" increase or decrease adjustment amount, if any, and the required *period of performance* 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" e*stimated cost* and *period of performance* 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.

(ALTERNATE I) (JUL 1997)

As prescribed in 1843.205-70(a)(2), add the following paragraph (f), modified to suit contract type, to the basic clause:

(f) If the *estimated cost* adjustment proposed for any Contractor-originated ECP is $500,000 or less, the ECP shall be executed with no adjustment to the contract *estimated cost*.

(ALTERNATE II) (SEP 1990)

As prescribed in 1843.205-70(a)(3), add the following sentence at the end of paragraph (c) of the basic clause:

An ECP accepted in accordance with the Changes clause of this contract shall not be considered an authorization to the Contractor to exceed the estimated cost in the contract Schedule, unless the estimated cost is increased by the change order or other contract modification.

(End of Clause)

I.9 Reserved

I.10 52.204-1 APPROVAL OF CONTRACT (DEC 1989)

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

(End of Clause)

I.11 52.215-19 NOTIFICATION OF OWNERSHIP CHANGES (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.12 52.216-18 – ORDERING (OCT 1995)

(a) Any supplies and services to be furnished under this contract shall be ordered by issuance of delivery orders or task orders by the individuals or activities designated in the Schedule. Such orders may be issued from **February 1, 2007** through **January 31, 2017**, if all options are exercised and award term periods are earned.

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

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

(End of Clause)

I.13 52.216-19 – ORDER LIMITATIONS (OCT 1995)

(a) *Minimum order.* When the Government requires supplies or services covered by this contract in an amount of less than **$1,000.00**, the Government is not obligated to purchase, nor is the Contractor obligated to furnish, those supplies or services under the contract.

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

(1) Any order for a single item in excess of **$30,000,000.00**;

(2) Any order for a combination of items in excess of **$30,000,000.00**; or

(3) A series of orders from the same ordering office within 30 days that together call for quantities exceeding the limitation in subparagraph (b)(1) or (2) of this section.

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

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

(End of Clause)

I.14 52.216-22 – INDEFINITE QUANTITY (OCT 1995)

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

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

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

(d) Any order issued during the effective period of this contract and not completed within that period shall be completed by the Contractor within the time specified in the order. The contract shall govern the Contractor's and Government's rights and obligations with respect to that order to the same extent as if the order were completed during the contract's effective period; provided, that the Contractor shall not be required to make any deliveries under this contract after **January 31, 2017**.

(End of Clause)

I.15 52.223-7 NOTICE OF RADIOACTIVE MATERIALS (JAN 1997)

(a) The Contractor shall notify the Contracting Officer or designee, in writing, 60 days prior to the delivery of, or prior to completion of any servicing required by this contract of, items containing either (1) radioactive material requiring specific licensing under the regulations issued pursuant to the Atomic Energy Act of 1954, as amended, as set forth in Title 10 of the Code of Federal Regulations, in effect on the date of this contract, or (2) other radioactive material not requiring specific licensing in which the specific activity is greater than 0.002 micro curies per gram or the activity per item equals or exceeds 0.01 micro curies. Such notice shall specify the part or parts of the items which contain radioactive materials, a description of the materials, the name and activity of the isotope, the manufacturer of the materials, and any other information known to the Contractor which will put users of the items on notice as to the hazards involved (OMB No. 9000-0107).

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

(1) Be submitted in writing;

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

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

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

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

(End of Clause)

I.16 52.232.18 AVAILABILITY OF FUNDS (APR 1984)

Funds are not presently available for this contract. The Government's obligation under this contract is contingent upon the availability of appropriated funds from which

payment for contract purposes can be made. No legal liability on the part of the Government for any payment may arise until funds are made available to the Contracting Officer for this contract and until the Contractor receives notice of such availability, to be confirmed in writing by the Contracting Officer.

I.17 52.244-2 – SUBCONTRACTS (ALTERNATE I) (MAR 2005)

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

"Approved purchasing system" means a Contractor's purchasing system that has been reviewed and approved in accordance with Part 44 of the Federal Acquisition Regulation (FAR).

"Consent to subcontract" means the Contracting Officer's written consent for the Contractor to enter into a particular subcontract.

"Subcontract" means any contract, as defined in FAR Subpart 2.1, entered into by a subcontractor to furnish supplies or services for performance of the prime contract or a subcontract. It includes, but is not limited to, purchase orders, and changes and modifications to purchase orders.

(b) This clause does not apply to subcontracts for special test equipment when the contract contains the clause at FAR 52.245-18, Special Test Equipment.

(c) When this clause is included in a fixed-price type contract, consent to subcontract is required only on unpriced contract actions (including unpriced modifications or unpriced delivery orders), and only if required in accordance with paragraph (d)or (e) or this clause.

(d) If the contractor does not have an approved purchasing system, consent to subcontract is required for any subcontract that--

(1) Is of the cost-reimbursement, time-and-materials, or labor-hour type; or

(2) Is fixed-price and exceeds—

(i) For a contract awarded by the Department of Defense, the Coast Guard, or the national Aeronautics and Space Administration, the greater of the simplified acquisition threshold or 5 percent of the total estimated cost of the contract; or

(ii) For contracts awarded by a civilian agency other that the Coast Guard and the National Aeronautics and Space Administration, either the simplified acquisition threshold or 5 percent of the total estimated cost of the contract.

(e) If the Contractor has an approved purchasing system, the Contractor nevertheless shall obtain the Contracting Officer's written consent before placing the following subcontracts:

"ALL INDIVIDUAL SUBCONTRACTS WITH AN ESTIMATED VALUE GREATER THAN $500,000.00"

(f) (1) The Contractor shall notify the Contracting Officer reasonably in advance of placing any subcontract or modification thereof for which consent is required under paragraph (c), (d), or (e) of this clause, including the following information:

(i) A description of the supplies or services to be subcontracted.

(ii) Identification of the type of subcontract to be used.

(iii) Identification of the proposed subcontractor.

(iv) The proposed subcontract price.

(v) The subcontractor's current, complete, and accurate cost or pricing data and Certificate of Current Cost or Pricing Data, if required by other contract provisions.

(vi) The subcontractor's Disclosure Statement or Certificate relating to Cost Accounting Standards when such data are required by other provisions of this contract.

(vii) A negotiation memorandum reflecting --

(A) The principal elements of the subcontract price negotiations;

(B) The most significant considerations controlling establishment of initial or revised prices;

(C) The reason cost or pricing data were or were not required;

(D) The extent, if any, to which the Contractor did not rely on the subcontractor's cost or pricing data in determining the price objective and in negotiating the final price;

(E) The extent to which it was recognized in the negotiation that the subcontractor's cost or pricing data were not accurate, complete, or current; the action taken by the Contractor and the subcontractor; and the effect of any such defective data on the total price negotiated;

(F) The reasons for any significant difference between the Contractor's price objective and the price negotiated; and

(G) A complete explanation of the incentive fee or profit plan when incentives are used. The explanation shall identify each critical performance element, management decisions used to quantify each incentive element, reasons for the incentives, and a summary of all trade-off possibilities considered.

(2) Unless the Contractor maintains an approved purchasing system, the Contractor shall notify the Contracting Officer reasonably in advance of entering into any (i) cost-plus-fixed-fee subcontract, or (ii) fixed-price subcontract that exceeds the greater of the simplified acquisition threshold or 5 percent of the total estimated cost of this contract. The notification shall include the information required by paragraphs (f)(1)(i) through (f)(1)(iv) of this clause.

(g) Unless the consent or approval specifically provides otherwise, neither consent by the Contracting Officer to any subcontract nor approval of the Contractor's purchasing system shall constitute a determination --

(1) Of the acceptability of any subcontract terms or conditions;

(2) Of the allowability of any cost under this contract; or

(3) To relieve the Contractor of any responsibility for performing this contract.

(h) No subcontract or modification thereof placed under this contract shall provide for payment on a cost-plus-a-percentage-of-cost basis, and any fee payable under cost-reimbursement type subcontracts shall not exceed the fee limitations in FAR 15.404-4(c)(4)(i).

(i) The Contractor shall give the Contracting Officer immediate written notice of any action or suit filed and prompt notice of any claim made against the Contractor by any subcontractor or vendor that, in the opinion of the Contractor, may result in litigation related in any way to this contract, with respect to which the Contractor may be entitled to reimbursement from the Government.

(j) The Government reserves the right to review the Contractor's purchasing system as set forth in FAR Subpart 44.3.

(k) Paragraphs (d) and (f) of this clause do not apply to the following subcontracts, which were evaluated during negotiations:

N/A

(End of Clause)

[END OF SECTION]

PART III - LIST OF DOCUMENTS, EXHIBITS AND OTHER ATTACHMENTS

SECTION J

LIST OF ATTACHMENTS

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SECTION J

ATTACHMENT J-1

PERFORMANCE WORK STATEMENT

MSFC SAFETY & MISSION ASSURANCE SERVICES

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ATTACHMENT J-1

PERFORMANCE WORK STATEMENT

1.0 SCOPE

MSFC S&MA is strongly committed to Safety, Teamwork, Integrity and Mission Success. This allows for the establishment of a highly skilled, diverse, and motivated workforce committed to safety. Working in a creative and productive environment in support of cutting-edge systems and technology development, the Center employs unique and innovative management techniques to improve safety of the public, the astronauts and pilots, the NASA workforce and high-value equipment and property. The Safety and Mission Assurance Directorate is committed as a part of MSFC, to preventing human injury and ensuring the safety of all operations and products leading to mission success. The S&MA Service Contractor shall fully support these endeavors and demonstrate the same commitment to safety and mission success.

The Contractor shall provide the necessary management, personnel, equipment, and supplies (not otherwise provided by the Government) required to provide services associated with the planning, implementation, and assessment of System Safety Engineering, Industrial Safety, Reliability and Maintainability Engineering, S&MA Management Information, Quality Assurance/Engineering, Project Assurance, Risk Management, Independent Assessment, Documentation and Report Support elements for the Marshall Space Flight Center Safety and Mission Assurance Directorate. The services tasks associated with each of these elements are elaborated in this Performance Work Statement (PWS).

The Contractor shall perform surveillance of assigned MSFC in-house and contracted design, development, manufacturing, and testing activities, for both hardware and software, to assess compliance with NASA MSFC Safety, Reliability, Maintainability, and Quality Assurance (SRM&QA) policies, requirements, and controls. The Contractor shall assure that management assessment information is provided in a timely manner to the MSFC S&MA Directorate to support the decision-making process regarding open problems, hazards, and risks pertaining to accomplishing MSFC's mission. This will include operation and maintenance of the S&MA Management Information Processes. The tasks described in this Performance Work Statement shall be performed principally in the MSFC locale; however, occasional travel to contractor facilities, NASA Headquarters, and other NASA installations may be required. Also, a few positions may be located at production/launch facilities in MSFC Resident Management Offices.

This Performance Work Statement as set forth is unclassified: however, some Contractor personnel may require access to classified documents; therefore, the Contractor must possess or be able to acquire a Facility Security Clearance. Security clearance, for those persons required to have such, will be obtained in accordance with the MSFC Security Procedural Requirements, MPR 1600.1 and the Industrial Security Manual for Safeguarding Classified Information, DOD Manual 5220.22. Contractor personnel working at MSFC must comply with pertinent MSFC security regulations and the requirements of Homeland Security Presidential Directive (HSPD) No. 12.

2.0 MANAGEMENT

The Contractor shall provide administrative and technical program management for effective direction and control of this contract. The Contractor's plan and approach for providing such management shall be documented in a Management Plan which will be prepared in accordance with DRD 1107MA-001. The Contractor shall provide and use management information systems which provide a means for monitoring and measuring performance and which encompass planning, scheduling, progress reporting, and completion of tasks or projects. This shall include an automated electronic task order management system for life cycle management of task orders and shall include the capability to provide real-time current and historical status of all task order from initiation to completion. The contractor shall provide an Organizational Conflict of Interest (OCI) Plan in accordance with DRD 1107MA-006. Monthly Financial Management Reports shall be provided in accordance with DRD 1107MA-008. Bi-weekly notes shall be submitted in accordance with DRD 1107MA-009. A Badged Employee and Remote IT User shall be submitted in accordance with DRD 1107MA-010. The contractor shall provide Management Status Review (MSR) Input in accordance with DRD 1107MA-005. The contractor shall provide a Make or Buy Plan in accordance with DRD 1107MA-011. The contractor shall determine the data restriction that applies to each data deliverable and mark or transmit the data restriction in accordance with section 2.3.3 of the Data Procurement Document.

2.1 Project Management

The Contractor shall provide planning, coordination, and surveillance of overall activities to assure disciplined performance of work and timely application of the resources necessary for completion of all tasks described in this Performance Work Statement. The contractor shall perform the activities associated with this PWS in accordance with the Marshall Management System (MMS) requirements and the Safety and Mission Assurance (S&MA) Directorate's Organizational Instructions.

2.2 Property Management

The Contractor shall comply with:

MWI 4520.1	Receiving
MWI 4220.1	Space Utilization, Communications Furniture, Relocation, and Special Event Services
MWI 4200.1	Equipment Control
MWI 4300.1	Disposal Turn-Ins/Reutilization Screening
MWI 4500.1	Program Stock, Storage, and Retail Store Operations
MWI 4520.2	Use of the Procurement Discrepancy Tracking System (PDTS)
MPR 4000.2	Property Management
FAR Part 45	Government Property
NFS Part 1845	Government Property

The Contractor shall implement an inventory control system for all controlled property and equipment. The Contractor shall prepare and maintain a report identifying and listing all equipment, tools, etc., provided by the Government for use by the contractor in the performance of contracted effort, and for which the contractor has been given physical custody. The Government Property Management Plan report shall be prepared and maintained in accordance with DRD 1107LS-001.

2.3 Occupational Safety and Health

The contractor shall establish and implement a safety, health, and environmental program that incorporates the following elements as applicable to the work performed under this contract documented in the Safety, Health, and Environmental (SHE) Plan required by DRD 1107SA-002.

a. Management leadership and employee involvement.

b. System and worksite analysis.

c. Hazard prevention and control.

d. Safety and health training.

e. Environmental compliance.

Mishaps shall be reported to the MSFC S&MA Directorate in accordance with DRD 1107SA-003, Mishaps and Safety Statistics Reports.

2.4 Working Group Support, Information Exchange, and Support for Implementation of New or Revised Requirements

The Contractor shall provide the following support for each of the nine elements stated in Paragraph 1.0:

a. Participate in working groups and communicate effectively in the local MSFC area (either at a workstation or remotely).

b. Information sharing or exchange with NASA Headquarters, other NASA Centers, and MSFC element contractors.

c. Review of and preparation of comments for drafts of new requirements documents or proposed revisions to existing requirements documents.

d. Participation in MSFC S&MA efforts to have MSFC Project Offices and their associated contractors implement new or revised requirements.

2.5 Personnel Training and Certification

The Contractor shall determine which positions on this contract require training as specified in MPR 3410.1, "Training", and certification as specified in MWI 3410.1, "Personnel Certification Program" and NPR 8715.3, "NASA Safety Manual" and applicable codes for welding, inspection, and Nondestructive Evaluation (NDE) of structural and pressure pipe welding. The contractor shall prepare, implement and maintain a Personnel Training and Certification Plan for each training and certification requirement identified in accordance with DRD 1107SA-001.

2.6 Developing and Maintaining Expertise in Safety and Mission Assurance Disciplines

The Contractor shall implement and maintain a program for developing and maintaining the expertise of its employees in safety and mission assurance disciplines including, but not limited to, industrial safety, systems safety, reliability, maintainability, quality assurance, and risk management. When practical, the Contractor shall partner with MSFC Civil Service employees by participating in S&MA Civil Service sponsored professional development activities such as periodic discipline expertise meetings and providing support to S&MA Civil Service discipline experts in the planning and implementation of their training and mentoring roles. The Contractor shall also develop, implement, schedule, and conduct specialized professional development training (in compliance with MPR 3410.1) when directed by S&MA and at their own discretion.

2.7 Automated Electronic Task Order Management System

The Contractor shall establish, implement, and maintain an automated electronic task management system required to plan, organize, direct, and control contract activities. To this end, the Contractor shall provide the Government with access to the automated electronic task order management system, in accordance with the procedures in Clause H.4 and H.5, PWS paragraph 2.0 and the process depicted in Attachment J-10, in a manner that is consistent and compatible with Center information technology standards and be 508 compliant, pursuant to The Rehabilitation Act Amendment of 1973, as amended in 1998, Section 508, 29 U.S.C. 794(d) (http://www.section508.gov/). The automated electronic task order management system shall be an interactive system to be used by the government and the contractor. The automated electronic task order management system may be hosted on the contractor's server. The automated electronic system shall allow for the electronic routing and approval of TOs and sub-elements. In addition, the Contractor's automated electronic task order management system shall track the status of TOs and sub-elements, as applicable, from planning/initiation to completion and record projected and actual resources data for each. This data shall be reported by those unique project numbers (UPN) that fund each TO and sub-elements. This data shall be presented in Management Status Review (MSR) Input that status each TO and sub-element on a monthly basis in accordance with DRD 1107MA-005. The Contractor shall provide Bi-Weekly Notes in accordance with DRD 1107MA-009. Overall reporting shall be compatible with the Contractor's organizational structure and the established PWS functional element.

The Contractor's automated electronic task order management system shall be an integrated system that allows insight and management of the day-to-day requirements at the Task Order Request (TOR), Task Order (TO) and sub-element levels. The Contractor's automated electronic task order management system shall have the capability of tracking actual cost back to the contractor's Financial Management Reporting (533 Reports) at all levels down to the TO sub-element and project funding level.

The Contractor's automated electronic task order management system shall provide a numbering system that provides traceability of tasks through their lifetime, electronic notification to the CO, COTR, TO initiator, Contract Task Order Performance Monitor (CTO PM), and Contractor of the task's status, approval tracking, revision tracking, traceability to a minimum of PWS level 4, delineation of inactive and active tasks, period of performance for the task, and negotiated estimated cost. The system shall be capable of allowing the CTO PM, COTR and CO the ability to approve each TO prior to beginning the task, and approve the services provided by the TO prior to being closed in the system.

TORs defining specific assignments within the broad scope of the PWS will be prepared by TO Initiators, as services are needed. Specific information to be contained in the automated electronic task order management system for the TORs shall include the following: an TOR number allowing traceability to a minimum of PWS Level 4, TO Initiator, task order description or objectives, travel requirements (if any), materials (if any), deliverables and milestone dates, benefiting program(s), and special instructions.

The Contractor will respond to the TOR with a Task Order Plan (TOP). Once approved the TOP will become a Task Order (TO). Information to be contained in the automated electronic task order management system for the TOs shall include the following: contract identity, TO number which corresponds with the TOR number previously assigned, TO initiator, Contractor TO lead, TO description or objectives, technical approach for performing the task which includes required input data, guidelines, and assumptions, skills required, special tools required, identification of subcontractor(s) (if any) performing or contributing, resource plan for workforce and cost, schedule showing milestones, and deliverables, special considerations to include recruiting issues, safety concerns, etc., that may affect performance, and risk associated with TO performance as related to cost, technical, and schedule. Management Status Review (MSR) Input that status each TO and sub-element on a monthly basis in accordance with DRD 1107MA-005 shall be a standard output of the electronic task management system.

A sub-element is a lower level definition of work within a TO. Each sub-element will have a brief description of the scope and a cost estimate associated with it. Tracking of funding, cost, and Work Year Equivalents (WYE's) shall be provided at the sub-element level. At the sub-element level, the automated electronic task management system shall provide visibility to funding provided by the customer and track the cost associated with the funding.

The automated electronic task order management system shall be capable of providing a Cost Summary Report, in spreadsheet format, that contains, for each organization (Directorate/ Department/Lab or Office), the following information for each evaluation period: TO number, TO title, negotiated cost, estimated cost without fee, and fee bearing negotiated cost. Additionally, the Cost Summary Report shall roll up each PWS Level 4 element information into an overall contract performance summary containing the following information for each evaluation period: organization, task title, summation of TOs for each PWS element Level 4, negotiated cost, and estimated cost. The Task Order Management system shall be capable of collecting and presenting in an organized format (to include but not limited to MS Word and PowerPoint), the performance data from all contract monitors for COTR/Alternate COTR review and use/edit at or near the end of each rating period in a secure mode (Government only access). This information will support recommendations to the Performance Evaluation

Board (PEB) for either Award Fee or Award Term periods earned during the evaluated performance period.

3.0 SYSTEMS SAFETY ENGINEERING PROGRAMS

3.1 The contractor shall develop and utilize any S&MA specific tools (as specified in PWS 7.0) needed to assure that all applicable system safety requirements (e.g., Agency, Center, Program/Project, etc.) are identified for MSFC programs and projects. These should include, but not be limited to fault tree analysis, logic trees, risk definition and mitigation analyses, hazard analysis and trending/data search.

3.2 The contractor shall assess program or project documentation (e.g., Contractor PWS, Data Requirements Documents, System Requirements Document, Contract End Item (CEI), Requirements Verification Compliance (RVC), procedures) to assure that all applicable safety requirements are addressed.

3.3 The contractor shall perform and assess trade studies relative to design, development, operation, or mission events to assure compliance with safety requirements and to assure safety risks are adequately identified, characterized, and mitigated.

3.3.1 The contractor shall perform and/or assess the elements of 3.3 for in-house design and development projects.

3.3.2 The contractor shall assess the elements of 3.3 for out-of-house design and development projects.

3.4 The contractor shall prepare and/or assess Safety Plans to assure compliance with applicable Agency, Center and Program safety requirements. Assess Project Plans to assure that safety is properly considered.

3.4.1 The contractor shall perform and/or assess the elements of 3.4 for in-house design and development projects.

3.4.2 The contractor shall assess the elements of 3.4 for out-of-house design and development projects.

3.5 The Contactor shall perform and/or assess hazard analyses to assure that: (a) all hazards are identified and the associated risks properly characterized; (b) hazard controls satisfy applicable safety requirements and adequately mitigate safety risks; (c) safety verification requirements are clearly identified and adequate, including the clear definition of verification pass/fail criteria; and (d) the safety verification status is properly maintained in a closed loop accounting system.

3.5.1 The contractor shall perform and/or assess the elements of 3.5 for in-house design and development projects.

3.5.2 The contractor shall assess the elements of 3.5 for out-of-house design and development projects.

3.6 The contractor shall assess and support development of program or project verification plans and verification requirements (e.g., Verification Plans, Requirements Verification Compliance (RVC) documents) to assure safety verification requirements are properly included.

3.6.1 The contractor shall assess test and operating procedures to assure compliance with safety controls and safety verification requirements.

3.6.2 The contractor shall assess or generate safety verification compliance data to assure it clearly demonstrates compliance with the safety verification requirements and parent safety requirement.

3.7 The contractor shall participate in (including making presentations as required) milestone reviews, safety reviews and readiness reviews to assure compliance with applicable safety requirements. This includes evaluation of documentation and data for technical interchange meetings, design milestone reviews [e.g., Preliminary Requirements Review (PRR), Preliminary Design Review (PDR), Critical Design Review (CDR), Design Certification Review (DCR)], safety reviews, and readiness reviews [e.g., Pre-Ship Review, Flight Readiness Review (FRR), Preflight Assessment (PFA), Safety and Mission Success Review (SMSR)] to assure compliance with applicable safety requirements and consideration of safety risks.

3.8 The contractor shall assess proposed changes, deviations, and waivers to project documentation to assure compliance with safety requirements. This includes evaluation of the impacts to safety analyses and the effects on program or project risk.

3.9 The contractor shall provide systems safety expertise for program and project Boards such as Configuration Control Boards, Problem Review Boards, Discipline Control Boards, Program Control Boards, Material Review Boards, etc.

3.10 The contractor shall identify any adverse safety trends and promptly notify MSFC S&MA.

3.11 The contractor shall provide real-time safety assessments during launch countdowns and missions. Huntsville Operations Support Center (HOSC) support shall be provided upon request.

3.12 The contractor shall perform safety assessments of any issues which involve one or more of the following:

a. Operation or performance outside the expected performance range of parameters or which has not previously been experienced.
b. Discrepancies or nonconformances which affect:
    1. Configuration
    2. Certification
    3. Mission success
    4. Safety critical functions
    5. Weight in excess of two pounds (equivalent performances to orbit)
c. Adverse problem trends
d. Discrepancies or nonconformances which the operator determines requires design element analysis or assistance for resolution.
e. Unexplained anomalies or events.
f. Limit hardware life.
g. Restrict hardware or software use.
h. Affect hazard control.
i. Affect flight or ground operation procedures that are controlled by the Government.
j. Change software or hardware configurations that are controlled by the Government.
k. Allow use of hardware that does not meet performance specifications, exceeds certification limits, or surpasses time, age, cycle life limits (waivers/exceptions).
l. Affect critical hardware manufacture or repair processes.

3.13 The contractor shall provide support to the Marshall Safety Engineering Review Panel (MSERP) and to other panels [i.e., CLV (Crew Launch Vehicle) Safety Review Panel (CLVSRP, etc.)]. Support shall include but not be limited to documentation distribution and review, board establishment and communication, executive secretary function, meeting action item tracking, records retention, and independent "Checklist Reviews" of Safety Compliance Data Packages.

3.14 The contractor shall develop and maintain metrics regarding the safety performance of MSFC programs and projects.

3.15 The contractor shall participate in periodic, recurring technical issues meetings to discuss and resolve safety issues.

4.0 INDUSTRIAL SAFETY PROGRAM

4.1 The contractor shall annually conduct OSHA safety compliance inspections in accordance with 29 CFR 1960 of all local MSFC owned or occupied facilities.

4.1.1 The contractor shall semi-annually conduct safety compliance inspections of operations considered potentially hazardous. This includes, but is not limited to research and development test facilities, laboratories, industrial facilities and equipment.

4.1.2 The contractor shall verify/sample at least 30 percent of the annual facility inspection findings and associated closure rationale during the last quarter of the calendar year.

4.2 The contractor shall conduct weekly OSHA safety compliance inspections in accordance with 29 CFR 1960 of MSFC construction sites {100% of Construction of Facilities (CoF) construction sites and 50% of other construction sites [e.g., Indefinite Delivery Indefinite Quantity (IDIQ), Blanket Purchase Agreement (BPA), etc.]}. This also includes inspections during normal non-duty hours and weekends when requested.

4.3 The contractor shall support final acceptance inspections of newly constructed or modified facilities.

4.4 The contractor shall annually perform facility fire alarm testing and building evacuation drills on all MSFC facilities with more than 10 occupants.

4.5 The contractor shall perform and evaluate hazard analyses and safety assessments using NASA approved state-of-the-art techniques for MSFC ground-based activities, equipment, and facilities.

4.6 The contractor shall perform safety engineering evaluations to ensure compliance with applicable codes and MSFC safety program requirements for preliminary engineering studies, feasibility studies, facility and equipment drawings and specifications.

4.7 The contractor shall review and evaluate MSFC potentially hazardous operation procedures and plans to assure compliance with applicable safety requirements and monitor the operation, when requested, to ensure safe operation.

4.8 The contractor shall participate in the Operational Readiness Inspections (ORI), Test Readiness Reviews (TRR), and other similar safety reviews to assess and evaluate the safety of potentially hazardous facilities and operations.

4.9 The contractor shall perform quantity distance calculations for explosives siting issues using methods of the NASA Explosives Safety Standard and other applicable standards as directed.

4.10 The contractor shall provide support to evaluate and monitor the storage, handling, and use of explosive, propellant, and pyrotechnic material and devices.

4.11 The contractor shall provide support to the MSFC Pressure Systems Manager in assuring compliance with NASA, ASME, ASTM, and applicable pressure system specifications and requirements for pressure systems containing cryogenic liquids/gases (e.g., Nitrogen, Hydrogen, Oxygen, etc.) and pressure systems containing other type liquids/gases when requested.

4.12 The contractor shall review program critical hardware (PCH) handling and transportation plans and procedures and monitor the transportation of the PCH.

4.13 The contractor shall provide support in developing, utilizing, and maintaining electronic databases (as specified in PWS 7.0), needed to support the MSFC Safety, Health, and Environmental (SHE) program. These include, but are not limited to the following safety tracking systems:

4.13.1 CERTRAK – Certification tracking for personnel performing hazardous operations
4.13.2 SCRS – Safety Concerns Reporting System
4.13.3 SHETrak – Safety, Health and Environmental tracking for facility inspection findings
4.13.4 Safety Search – database providing ability to search SHE related items
4.13.5 Mishap Reporting – database for mishap and incident reports
4.13.6 Safety Bulletins – database listing safety bulletins
4.13.7 Hazard Analysis – database tracking hazard analysis status
4.13.8 Building Managers list – database listing current building managers
4.13.9 ORI/TRR Tracking System – database tracking ORI/TRR status
4.13.10 Certified lifting equipment for PCH – database listing current PCH certified lifting equipment
4.13.11 SSWP – Supervisor Safety Web Page
4.13.12 Contractor Database – database listing current MSFC contractors
4.13.13 RiskSafe – software used to assist in conducting hazard analysis
4.13.14 IHOPS – Inventory of Hazardous Operations
4.13.15 Design Reviews – database tracking design review comments
4.13.16 Any other systems needed to track and analyze industrial safety information.

NOTE: These electronic database tools are to be made available to MSFC S&MA personnel upon request. Training and updates shall be provided upon request.

4.14 The contractor shall provide support in the review of new or revised NASA and MSFC safety related documents.

4.15 The contractor shall provide support at briefings requiring MSFC Safety support (e.g., pre-construction, pre-move, pre-test, etc.) to inform and assure personnel involved in the activity are aware and knowledgeable of the MSFC safety regulations and requirements.

4.16 The contractor shall monitor the implementation of any new and revised NASA, MSFC, OSHA, NFPA or any other applicable document related to safety (e.g., Standard for Lifting Devices and Equipment, Fall Protection, Lockout/Tagout, etc.).

4.17 The contractor shall monitor the testing of safety related and fire protection systems (e.g., fire alarms, sprinkler, carbon dioxide, wet chemical, fire hydrants, standpipes, oxygen deficiency monitor, emergency showers/eyewashes, etc.).

4.18 The contractor shall provide support for mishap investigations including any required follow-up to safety technical issues.

4.19 The contractor shall provide proficiency testing for MSFC lifting equipment operators (e.g., cranes, forklifts, aerial lifts, etc.).

4.20 The contractor shall issue safety permits (e.g., Hot Work Permits, Energized Electrical Equipment Permits, etc.).

4.21 The contractor shall provide support to assist during internal self-assessments, audits or surveys, and assessments, audits or surveys performed by a third party or other outside agency of the MSFC safety program.

4.22 The contractor shall provide support in preparing, presenting, and/or distributing information relating to MSFC safety activities.

4.23 The contractor shall provide administrative and technical secretary support for the MSFC SHE Committee.

4.24 The contractor shall participate in the development and implementation of OSHA compliance training subjects in accordance with 29 CFR 1960, 29 CFR 1910 and 29 CFR 1926 (e.g., Collateral Duty, Supervisor Safety Visits, Building Manager, Lifting Devices, Personnel Protective Equipment (PPE), etc.), and provide this safety training to MSFC employees, when requested.

5.0 RELIABILITY AND MAINTAINABILITY ENGINEERING

5.1 Systems Analysis

5.1.1 The contractor shall prepare, evaluate and assure reliability and maintainability plans for MSFC program and project designs are consistent with MSFC S&MA

and project management direction. Support the development and assessment of FMEA/CIL's and their groundrules.

5.1.1.1 The contractor shall prepare, evaluate and assure the elements of 5.1.1 for in-house design and development projects.

5.1.1.2 The contractor shall evaluate and assure the elements of 5.1.1 for out-of-house design and development projects.

5.1.1.3 The contractor shall support the development of FMEA/CIL's in 5.1.1 for in-house design and development projects.

5.1.1.4 The contractor shall support the assessment of FMEA/CIL's in 5.1.1 for out-of-house design and development projects.

5.1.2 The contractor shall evaluate changes, out-of-family conditions, material reviews, and deviations for impact to FMEA's and CIL's.

5.1.3 The contractor shall evaluate project documents related to reliability and maintainability to assure consistency and adequacy with overall project requirements.

5.1.4 The contractor shall evaluate OMRSD's and implementing OMI's to assure that reliability and maintainability requirements are adequately addressed and implemented.

5.1.5 The contractor shall participate in project milestone reviews (PRR's, SRR's, PDR's, CDR's, DCR'S, FRR's, etc.) for the purpose of evaluating the incorporation of reliability and maintainability requirements throughout the life cycle of a project (e.g., design, development, production, testing, and operations).

5.1.6 The contractor shall prepare reliability assessments, using reliability data bases, for each mission, vehicle, and other equipment in support of preflight assessment reviews and flight readiness milestone reviews.

5.1.7 The contractor shall perform design trade studies, evaluate contractor prepared trade studies, and provide reliability and maintainability assessments.

5.1.8 The contractor shall evaluate hardware and software contractor provided reliability and maintainability analyses, to verify the validity of the analyses and assure that the analyses have been performed in accordance with requirements.

5.1.9 The contractor shall perform planned and ad hoc numerical reliability and maintainability analyses using appropriate analytical methods and models without necessarily receiving detailed technical guidance from MSFC. The analytical methods may include, but not be limited to, classical probability density functions, reliability and maintainability models, Monte Carlo simulation models, probabilistic risk analysis, etc.

5.1.10 The contractor shall develop and employ quantitative and qualitative models and simulations to support the design, development and testing of MSFC managed spaceflight hardware and software as well as sustaining engineering of this hardware and software. The contractor shall perform analyses to ascertain/verify the technical validity of models and simulations that support the design, development, testing and sustaining engineering of MSFC managed spaceflight hardware and software.

5.1.10.1 The contractor shall perform the elements of 5.1.10 for in-house design and development projects.

5.1.10.2 The contractor shall perform the elements of 5.1.10 for out-of-house design and development projects.

5.1.11 The contractor shall develop and/or evaluate FMEA's and CIL's for compliance with requirements.

5.1.12 The contractor shall develop and utilize any tools (as specified in PWS 7.0) needed to assure that all applicable reliability and maintainability requirements are identified for MSFC programs and projects. These should include, but not be limited to FMEA/CIL information analysis, reliability trending and assessments, maintainability trending and assessments, and any other systems needed to analyze reliability and maintainability information. The analytical results of these tools should be provided to MSFC S&MA personnel with appropriate recommendations.

5.1.13 The contractor shall provide real-time reliability assessments during launch countdowns and missions. Huntsville Operations Support Center (HOSC) support shall be provided upon request.

5.2 Probabilistic Risk Assessment (PRA)

5.2.1 The contractor shall prepare probabilistic risk assessment plans for MSFC managed programs and projects.

5.2.2 The contractor shall develop and/or provide tools (as specified in PWS 7.0) and techniques to perform probabilistic risk analysis.

5.2.3 The contractor shall perform probabilistic risk analysis, assessments and mitigation for MSFC managed programs and projects. The contractor shall be able to perform PRAs as required on future MSFC programs and projects. Specific tasking will include, but not be limited to reliability engineering tasks related to the Exploration Systems Mission Directorate programs and projects, and NASA Headquarters initiative to develop an overall Shuttle Program Risk Model. This will include data collection related to MSFC elements (Space Shuttle Main Engine, Solid Rocket Booster, Reusable Solid Rocket Motor, and External Tank), risk model selection and risk analysis of these elements, utilization of the selected risk model(s) to be integrated into the overall Shuttle Program Model, simulation of risk scenarios using available software packages, and an overall report on the data, methods/models, and results.

5.3 Hardware/Software Assessments

5.3.1 The contractor shall evaluate in-house and out-of-house contractor methods for identification and control of limited life items. Verify, through assessments, that sufficient remaining life of equipment is available for accomplishing the mission objectives. Verify that life limits of common hardware are consistent.

5.3.2 The contractor shall evaluate engineering and programmatic changes such as ECR's, ECP's, Deviations, Waivers, PCP's and SCN's for reliability and maintainability impact.

5.3.3 The contractor shall evaluate in-house and out-of-house contractor provided FMEA analyses of software design to assure software properly responds to critical failure modes as identified by the FMEA/CIL documents (i.e., fault detection, isolation, switching, etc.).

5.4 ALERT Program Maintenance

5.4.1 The Contractor shall receive ALERT's and shall enter them into the ALERT database.

5.4.2 The Contractor shall also distribute ALERTS to MSFC actionees for review and disposition, track the status of the reviews by project, enter the results of the reviews in the ALERT database, and transmit the results of the reviews to the organizations identified in MWI 1280.5, MSFC Alert Processing.

5.4.3 The Contractor shall ensure that the ALERT data is available real-time to users, shall track the status of Alerts and assure that actionees provide timely closures and shall evaluate ALERTS closure rationale.

5.4.4 The contractor shall generate or assist in the generation of ALERT's (primarily for in-house programs and projects) as warranted.

5.5 Problem Assessment Center (PAC)

The Contractor shall operate the MSFC PAC in strict compliance with the MSFC PAC Operations Plan (see paragraph 5.5.1) and supplementary guidance provided by the COTR. In executing this task, the Contractor shall process incoming problem reports, coordinate the activities of the MSFC Problem Assessment System(PAS) (which provides the process by which MSFC project management and technical organizations review and close problem reports), provide official MSFC problem report data to authorized organizations and personnel, and operate and maintain (i.e., keep data current) the MSFC PRACA database.

5.5.1 Problem Assessment Center Operations Plan

The Contractor shall maintain and implement the Operations Plan for the MSFC PAC in accordance with DRD 1107MA-004, Problem Assessment Center (PAC) Operation Plan. The plan shall describe, in detail, the PAC activities necessary to fulfill the problem reporting requirements (from initiation of project problem reporting through project termination) for any MSFC managed projects for which problem reporting is required. The plan shall also identify the periodic reports the PAC will issue to fulfill customer needs.

5.5.2 Problem Report Processing

The Contractor will receive problem reports (i.e., initial reports, updates, and recommended closures) directly from hardware/software contractors and in-house hardware/software developers via mail, courier, facsimile machine, or direct electronic transfer (i.e., the hardware/software contractor's computer furnishes problem report data directly to the MSFC PRACA database). The Contractor shall review the incoming problem reports for accuracy, clarity, and completeness. The Contractor shall complete the problem report data fields designated for completion by the PAC and the Design Center. For problem reports submitted by hardware/software contractors who do not use the MSFC PRACA problem report format, the Contractor shall prepare an MSFC PRACA problem report form. The Contractor shall screen the incoming problem reports to identify system level problems when requested by the associated project. The Contractor shall maintain a complete record of each problem report submitted to the PAC.

5.5.3 Reviewing Problem Reports

The Contractor shall review the data for all coded fields as well as all text fields provided by the hardware/software contractor or in-house hardware/software developer. This review shall address technical sufficiency as well as editorial acceptability. When a problem report is inaccurate, unclear, or incomplete, the Contractor shall contact the responsible hardware/software contractor or in-house hardware/software developer by the most expeditious means and request

correction, clarification, or supplementary information as warranted by the situation. Supplementary information may consist of backup technical data such as Engineering Change Request (ECR) documents, procedures, specifications, drawings, etc. The contractor shall perform trending analysis for each problem report received and provide results and recommendations for potential corrective action (Section 5.5.11).

5.5.4 Problem Report Records

For each incoming problem report, the Contractor shall enter the required problem report data in the MSFC PRACA database unless that data is electronically transmitted directly to the MSFC PRACA database by the hardware/software contractor. The Contractor shall maintain a record of each problem report in the MSFC PRACA database. The Contractor shall also maintain a hardcopy file containing those problem reports and their associated backup information provided by the hardware/software contractor in hardcopy form.

5.5.5 Coordinate the MSFC Problem Assessment System (PAS)

The Contractor shall coordinate the review and disposition of problem reports by the appropriate MSFC project management and technical assignees, record the actions of the assignees, and prepare and route non-concurrence letters when directed by the authorized assignees. The Contractor will coordinate the MSFC review of system level problems and record the results of the review.

5.5.6 MSFC Review and Disposition

Upon receiving either initial problem reports or recommended closures from the hardware/software contractors or in-house hardware/software developers, the Contractor shall expeditiously distribute copies of those problem reports, including backup information, to the appropriate assignees in the MSFC project offices, and the MSFC Safety and Mission Assurance Directorate. The Contractor shall be responsible for maintaining current knowledge of the identities of the assignees for each project for which the PAC processes problem reports. The Contractor shall track the status of the review and disposition of each problem report and, when requested, shall assist assignees in obtaining additional information from hardware/software contractors.

5.5.7 Problem Review Board (PRB) Meetings

When a formal Problem Review Board (PRB) meeting is called, the Contractor shall prepare a proposed list of problem reports for review, schedule the meeting, prepare an agenda, and coordinate it with the hardware/software contractor or in-house hardware/software developer, provide advanced notice to the participants, assure that the necessary support arrangements (i.e., meeting room reserved, telephone conference arranged, etc.) have been made, and provide problem report

information packages to the MSFC assignees. In addition, the contractor shall provide an assessment of each problem report including related history, trends, thoroughness of report, and overall adequacy of investigation and recurrence controls. During the meeting, the Contractor shall administer the meeting, record and report statuses of action items assigned by the PRB, and record the PRB's disposition of the problem reports considered. Following the meeting, the Contractor shall monitor the status of action items, update the MSFC PRACA database and hardcopy files, and prepare, secure approval for, and distribute the minutes of the meeting.

5.5.8 MSFC Review of System Level Problems

The Contractor shall monitor the Space Shuttle Level II Program Compliance Assurance Status System (PCASS) database to identify newly entered system level problems pertaining to the Orbiter. The Contractor shall provide these reports to the appropriate MSFC assignees and obtain their responses which will be recorded in a dedicated file and provided to the appropriate JSC organization. The contractor shall establish and operate a process for identifying, reviewing, documenting and distributing system level problems and review responses associated with future programs/projects (i.e., Exploration Systems, etc.).

5.5.9 Official MSFC Problem Report Data

The Contractor shall provide official MSFC problem report data and, if requested, basic engineering assessments of the data or answers to questions regarding the data for the following:

a. Project office sponsored flight readiness reviews as well as S&MA Directorate sponsored readiness reviews (e.g., CoFR, preflight assessments (PFA), SMSRs).

b. Daily electronic updates for upper level program problem report databases (e.g., Level II PCASS).

c. Notification to the appropriate organization (e.g., JSC) of newly reported system level problems submitted by MSFC project hardware/software contractors.

d. Requests from NASA MSFC Civil Service organizations.

e. Requests from the Huntsville Operations Support Center (HOSC) during mission support operations.

f. Requests from other organizations upon direction from the COTR.

5.5.10 Support for the Huntsville Operations Support Center (HOSC)

The Contractor will station assessment engineers at the Problem Assessment Center (PAC) during Simulations, Flight Readiness Firings (FRF), Count Down Demonstration Tests (CDDT), and mission launches (beginning with tanking at approximately T-7 hours and continuing regularly or intermittently through completion of payload missions for which there are PAC maintained databases). At the PAC, the assessment engineers will respond to requests from the HOSC for problem information contained in the MSFC PRACA database. These requests will require extraction of problem data, structured queries of the database to produce information about groups of problems, and assessment and basic engineering analysis by assessment engineers to answer specific questions. The Contractor will notify the appropriate Program/Project S&MA representative if open problems are received which require disposition prior to launch. If necessary, the Contractor will support a PRB meeting as described in 5.5.7.

5.5.11 Problem Trending

The Contractor shall conduct ongoing statistical analyses and engineering assessments of problem trends. Problem trends may be prepared for any MSFC Project for which problem reporting is performed (i.e., Payloads, Space Shuttle elements, CLV and CLV Elements, etc.) if warranted or requested. Resulting trend data/analysis is presented to the appropriate MSFC S&MA representative. Contractor format is acceptable.

5.6 PRACA (Problem Reporting and Corrective Action)

The Contractor shall prepare PRACA methodology documents for MSFC managed programs and projects and evaluate PRACA documents submitted by contractors. The contractor shall assure that PRACA requirements are consistent with MSFC S&MA and project management direction.

6.0 QUALITY ASSURANCE

6.1 Systems

6.1.1 The Contractor shall prepare, evaluate and, provide assessments of in-house and contracted quality related contractual documentation (e.g., Hardware and Software Quality Assurance (QA) Plans) including implementation instructions and procedures for MSFC QA policies and directives.

6.1.2 The Contractor shall perform periodic reviews and assessments of in-house and contracted QA instructions for compliance with NASA policy, Marshall Management System (MMS), Safety and Mission Assurance (S&MA) Directorate Organizational Instructions.

6.1.3 The Contractor shall provide Quality Engineering (QE) expertise for the preparation, evaluation, and assessment of in-house and contractual documentation relative to processes (e.g., electrical, electronic, materials, and non-destructive evaluation) encountered during the manufacturing, inspection, and test phases of projects.

6.1.4 The Contractor shall provide expertise to support the continued ISO 9000-2000/AS9100 registration at MSFC including, but not limited to, training of MSFC employees on ISO 9000-2000/AS9100, implementation plan maintenance, procedure preparation, progress monitoring, and internal audit support. The Contractor shall give advice/consultation on matters pertaining to interpretation of the ISO 9000-2000/AS9100 standard (to individual organizations as well as the MSFC Management Representative and the Implementation/Maintenance team). The Contractor shall support the MMS team. The Contractor shall assist in external and internal Audits/Surveillances and Corrective Action follow-up. The contractor shall participate in and support Document Control Board activity for review, evaluation, and disposition of S&MA controlled documents. This activity includes the review of Organizational Instructions (OI) and related external documents under review by Center Document Control Boards (DCB's).

6.1.5 The contractor shall participate in MSFC program, contractor, supplier, or other Government milestone reviews (e.g., SMSR's, PRR's, SRR's, PDR's, CDR's, DCR's, FRR's, TRR's) to evaluate the incorporation of quality assurance and certification requirements in decisions affecting design, safety, production, testing, and operation.

6.1.6 The contractor shall develop and utilize any tools (as specified in PWS 7.0) needed to assure that all applicable quality assurance requirements are identified for MSFC programs and projects. These should include, but not be limited to quality information analysis (including workmanship standards, specifications, procedures and documentation quality control), quality data trending and assessments, and as built configuration databases.

6.1.7 The contractor shall provide real-time quality assessments during launch countdowns and missions. Huntsville Operations Support Center (HOSC) support shall be provided upon request.

6.2 Process and Product Assurance

6.2.1 The contractor shall prepare and evaluate workmanship against the technical standard, specifications, procedures, and control documentation for in-house and contracted processes and purchases, utilizing the Procurement Discrepancy Tracking System (PDTS) as appropriate, used throughout all phases of the hardware and software development cycle.

6.2.2 The contractor shall prepare and evaluate in-house inspection criteria for safety critical hardware/software characteristics and other requested characteristics. They shall also evaluate and provide written assessments on other MSFC contractor or Government Agency inspection criteria and the implementation of these inspections.

6.2.3 The contractor shall provide Engineering Change Proposal (ECP) support to S&MA Configuration Control Board (CCB) members. The support provided shall consist of logging, tracking, and distributing ECP's for S&MA review, response integration, and presenting the integrated assessments to CCB's. The Contractor shall also provide support as change package engineers (CPE) as assigned.

6.2.4 The contractor shall provide the expertise to evaluate in-house and contractual waivers and deviations for compliance with stated QA, certification requirements, standards, and policies.

6.2.5 The contractor shall provide QE expertise to ensure the inspectability of in-house designs by performing drawing and procurement documentation review. The contract will recommend the quality requirements for procurements as required.

6.2.6 The contractor shall provide the expertise to perform and evaluate trade studies relative to design, fabrication, inspection, testing, and operations.

6.2.7 The Contractor shall prepare, evaluate, and maintain guidelines, checklists, and plans to be used in support of S&MA participation in audits of MSFC internal organizations, MSFC vendors and suppliers, and other Government Agencies and NASA Engineering and Quality Audits (NEQA). The Contractor shall maintain a status of all S&MA action items resulting from audits to ensure compliance with MSFC S&MA policies and procedures. The Contractor shall provide support to S&MA, auditors, and auditees by assisting in scheduling audits, tracking and follow-up of findings, and preparation and distribution of final reports. The Contractor shall maintain a system for retention of quality records associated with audits.

6.2.8 The Contractor shall evaluate test results versus verification requirements including the disposition of test anomalies and discrepancies for adequacy. The Contractor shall maintain the necessary certification records, files, and hardware certification status to meet project and S&MA needs.

6.2.9 The contractor shall provide Quality Assurance expertise (including but not limited to hardware evaluation) in support of S&MA inspection and MSFC testing activities including initial surveillance to final acceptance as required.

6.2.10 The contractor shall participate in postflight assessment [i.e., SRB (Solid Rocket Booster), RSRM (Reusable Solid Rocket Motor), CLV hardware, etc.], as

requested. Prepare assessment reports and presentations. Evaluate observations for determination of items that warrant formal problem reports.

6.3 Problem Analysis

6.3.1 The contractor shall, as required, advise MRB members and recommend corrective action to improve product quality. The contractor shall also participate in the construction of trending charts and analyses on MSFC contractor and in-house efforts, and shall provide recommendations to S&MA engineers and managers on adverse MSFC contractor and in-house trends.

6.3.2 The contractor shall participate in problem and failure investigations to determine root cause and recommend corrective action.

6.3.3 The contractor shall administer the MSFC Corrective/Preventive Action System. It shall be operated in compliance with MWI 1280.3, Corrective/Preventive Action Notification System; MPR 1280.4, MSFC Corrective Action System; and attendant MSFC work instructions. The contractor shall screen incoming potential recurrence control action requests (RCAR's); record and track problem and preventive action status; coordinate MSFC review and disposition of RCAR's; provide official MSFC report data to authorized organizations and personnel; perform trending on related potential and screened RCAR's by failure mode and cause; and operate and maintain the MSFC CAS database. The contractor will provide support for maintaining associated Safety and Mission Assurance (S&MA) organizational instructions current with MSFC procedures and requirements.

6.4 Personnel Certification Administration

The contractor shall support the administration of the MSFC Personnel Certification Program in compliance with MWI 3410.1, Personnel Certification Program. The contractor shall maintain a database system to record personnel certifications for MSFC and on-site contractor personnel. As required, the contractor shall screen certification packages for compliance with procedures and coordinate the review of the packages with the applicable MSFC Certifying Officer.

6.5 Software Assurance (SA)

Support the establishment, implementation, and maintenance of applicable, NASA, Government approved Industry Standards, or DoD, SA requirements, and implementing these requirements on MSFC managed in-house and contracted software development programs. Support shall include, when applicable, the following. Preparing, evaluating, and providing assessments of MSFC managed in-house and contracted program/project SA Plans and software engineering change documentation (e.g. ECRs, ECPs, SPRs, TDRs). Evaluating and providing assessments of program/project software products (e.g. Software Development Plans, Software Requirements Specifications, Software Test Plans)

and of applicable NASA/MSFC policies and guidelines (NPDs, NPGs, MPDs, MPGs, etc.). Participating in and providing assessment during program/project milestone reviews (e.g. PDR, CDR, TRR). Supporting audit planning and tracking of findings associated with the S&MA evaluation of MSFC managed software development process though SA internal audits (e.g. Software Development Folder Audits, Software Configuration Management Audits, Software Requirements Traceability Audits, Peer Review Audits). Performing software quality assurance test activities during the appropriate software development life cycle phase. The contractor shall prepare and participate in SA related training. The contractor shall support in the collection of SA metrics. The contractor shall prepare, evaluate, and provide assessment associated with the NASA Initiative for Software Assurance and with S&MA/SA documentation for the implementation of the Software Engineering Institute (SEI) Capability Maturity Model Integration (CMMI) (e.g. SA OIs).

7.0 S&MA MANAGEMENT INFORMATION

7.1 The contractor shall provide support for the management of all S&MA Management Information tools, including databases, applications, processes, hardware and software throughout the lifecycle, including planning, acquisition, development, documentation, operation and disposal (See Attachment J-4). The Contractor shall also manage resulting S&MA data and provide a virtual focal point for the presentation of refined, integrated S&MA data and administer the S&MA delegated agency data, including annual forecasts, midyear updates, and monthly data reduction. (This support shall not conflict with the responsibilities of the Center IT Services contractor.)

7.2 The contractor shall support the preparation and/or maintenance of S&MA management information documents including Organizational Issuances (OIs).

7.3 The contractor shall using accepted and proven methodologies, assess S&MA's information needs for the present and future. Investigate alternatives for identified S&MA needs. Evaluate and recommend S&MA requirements for new system enhancements or capabilities. Present S&MA management with precise descriptions and recommendations on system alternatives and improvements.

7.4 The contractor shall perform structured system design activities for in-house development work and for work performed by outside contractors, and make management recommendations to S&MA. MSFC S&MA will provide overview and retain final decision-making authority over all design and development activities. Assure conformance of all S&MA Management Information system development activities to governing policies and best practices.

7.5 The contractor shall ensure that all system requirements are met. If not provided by S&MA, the contractor shall generate complete documentation for each system.

This documentation shall include, but not be limited to, requirements definition, design definition, code documentation, users' guides for operations personnel as well as end users, implementation plans and operations plans. Assure that all internal reviews and on-site coordination activities are completed. Provide user support functions for S&MA Management Information including training and real-time help for supported programs and processes.

7.6 The contractor shall provide computer security risk assessments of all S&MA databases and data applications in accordance with MPR 2810.1, "Security of Information Technology". The contractor shall prepare an Information Technology Security Plan that documents how the contractor and subcontractor personnel will utilize, in a secure manner commensurate with sensitivity of the information involved, those Federal computer systems and software applications managed by others. The contractor shall prepare a system-level Information Technology System Security Plan for each Federal general support computer system and major software application managed by contractor and subcontractor personnel in the performance of the contract. The security plan(s) shall be based on an assessment of risks and document the safeguards necessary to ensure sufficient electronic information availability, integrity, and confidentiality as required by NPR 2810.1. The contractor shall prepare the Information Technology Security Plan(s) in accordance with DRD 1107CD-001. The contractor shall provide, review and revise information technology security plans per requirements. Coordinate information technology security-related initiatives for contract personnel.

8.0 PROGRAM/PROJECT ASSURANCE SERVICES

Program/Project Assurance Services shall be provided to all S&MA supported programs/projects.

8.1 S&MA Project Team Participation

8.1.1 The contractor shall coordinate the contractor S&MA activities with the S&MA program/project team leads to assure the proper execution of the S&MA program/project requirements.

8.1.2 The contractor shall serve as expert advisor on SRM&QA (Safety, Reliability, Maintainability and Quality Assurance) topics for program/project team meetings, technical interchange meetings, problem investigation and resolution efforts, and other routine program/project meetings.

8.1.3 The contractor shall participate in milestone reviews, data reviews, and safety reviews.

8.1.4 The contractor shall provide assessments of flight readiness in support of the S&MA input to the SMSR's and the Certificate of Flight Readiness for the MSFC

Shuttle elements, CEV and CLV Elements, MSFC Payloads, Flight Projects and future programs/projects, upon request. This includes, but is not limited to, technical issues resolution and status of S&MA flight critical documentation (COQ's, FMEA/CIL, Hazards, etc.)

8.1.5 The contractor shall track action items and issues resulting from above team meetings, milestone reviews and flight readiness activities, and recommend disposition to S&MA program/project team leader.

8.1.6 The contractor shall provide real-time assessments during launch countdowns and missions. Huntsville Operations Support Center (HOSC) support shall be provided upon request. Program/Project Assurance shall coordinate these contractor activities.

8.2 S&MA Readiness Review Center

The contractor shall operate the MSFC S&MA Readiness Review Center for each Safety and Mission Success Review (SMSR), SMSR Tag-up and L-2 SMSR Tag-up including dry runs for ET/SRB Mate Reviews, Orbiter Rollout Reviews and reviews established for future programs/projects. This task includes scheduling, data collection, preparation and distribution of MSFC S&MA presentation materials, and data exchange with JSC, KSC, and NASA HQ. In addition, serves as a member of the NASA SMSR Data Coordinators Working Group.

8.3 NASA Engineering and Safety Center (NESC) and Technical Authority (Formally Independent Technical Authority) Support

The Contractor shall provide as required the necessary administrative and technical support to S&MA to assure disciplined performance of work and timely application of the resources necessary for completion of all assigned NESC and Technical Authority tasks. NESC and Technical Authority tasks will include, but are not limited to the following:

a. Developing and maintaining the MSFC S&MA NESC Significant Problem Reports.

b. Supporting NESC trending activities.

c. Supporting the NESC and Technical Authority telecoms and meetings (including preparing supporting materials).

d. Providing technical support to NESC assessments and Technical Authority activities.

8.4 Program Support (Level II Type SRM&QA Tasks/Activities)

a. Formulate and document SRM&QA programmatic and technical requirements (e.g., Hazard Analysis methodology requirements; FMEA/CIL methodology requirements; PRA methodology requirements; PRACA methodology requirements; Quality Assurance requirements; Risk Management requirements, etc.).

b. Develop, baseline and maintain programmatic implementing processes/plans.

c. Develop, baseline and maintain programmatic integrated hazard analysis. This possibly includes an integrated fault tree analysis.

d. Develop, baseline and maintain programmatic integrated probabilistic risk assessments.

e. Conduct "focused" PRA's on requested topics.

f. Develop or support the development of PRACA or PRACA like "information management systems."

g. Participate in milestone reviews (SRR's, PDR's, CDR's, DCR's) to assess compliance with SRM&QA programmatic requirements.

h. Review proposed changes, waivers and deviations to programmatic requirements for safety, reliability and quality impacts.

i. Provide SRM&QA representation to Systems Engineering & Integration (SE&I) panels/groups (e.g., System Integration Group's, etc.).

j. Provide membership to programmatic Safety Review Panel(s), R&M Panel(s), PRA Panel(s), Quality Panel(s), etc. These panels provide an oversight/assurance function.

k. Participate in QA audits and surveillance activities.

l. Provide preflight readiness, launch countdown and real-time mission support to future programs, as requested.

9.0 INDEPENDENT ASSURANCE TASKS

The contractor shall use senior staff and Technical Experts to perform independent assurance tasks in support of Independent Assurance (IA). Assessments will be requested by the MSFC S&MA Organization. IA tasks will include, but are not limited to the following:

a. Track Project/Program operations and make recommendations of potential IA topics to S&MA.

b. Develop and maintain IA assessment work plans.

c. Perform assessments in accordance with approved assessment plans. Coordinate with appropriate IA team members, other organizations conducting related assessments, and program/project offices while researching issues. Report significant issues or concerns developed by the assessment immediately to the MSFC IA Manager.

d. Develop report of analysis, observations, findings and recommendations. This will include incorporation of any Program/Project responses to the IA observations. Present this report to the MSFC IA Manager for approval.

e. Brief observations, findings and recommendations to MSFC IA Manager, appropriate S&MA Managers and appropriate Program/Project personnel.

f. Coordinate and perform follow-up on closure of report observations and any assigned actions as required.

g. Participate in MSFC led and Headquarters led Programmatic Audits and Reviews, and S&MA Readiness Reviews.

Performance of all tasking will be in accordance with OI QD-PA-006, MSFC S&MA IA Implementation Plan.

10.0 RISK MANAGEMENT

10.1 The Contractor shall provide expertise to support the preparation, evaluation, and assessment of in-house and contractual program and project risk management plans. The contractor shall develop tools (as specified in PWS 7.0) and techniques, as necessary, to facilitate the identification/tracking/mitigation of risks and issues that may potentially negatively impact a project or program.

10.2 The Contractor shall provide recommendations and advice to S&MA engineers and managers relative to risk mitigation actions to minimize or eliminate risks.

10.3 The Contractor's risk management experts shall complete the NASA HQ supplied training and become certified as Continuous Risk Management Course instructors. Once certified, the instructors shall present Continuous Risk Management courses and workshops to MSFC employees (planned a minimum six times a year).

11.0 DOCUMENTATION AND REPORT SUPPORT

11.1 The contractor shall provide support in the development of plans, procedures, briefing material and other documents required in the accomplishment of MSFC S&MA activities in accordance with DRD 1107MA-003, MSFC Safety, Reliability, Maintainability and Quality Assurance (SRM&QA) Documents.

11.2 The contractor shall provide support to the S&MA Directorate with evaluations and assessments of documentation to accomplish its mission in support of MSFC Programs and Projects. These reports shall be in accordance with DRD 1107MA-002, Evaluation and Assessment Reports.

11.3 The contractor shall provide Employee Reporting List and Contractor Employee Clearance Document in accordance with DRD 1107MA-007.

DATA PROCUREMENT DOC. NO. **1107** ISSUE **Basic**

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CONTRACT/RFP

EXHIBIT NUMBER

J-2
ATTACHMENT NUMBER

Safety and Mission Assurance Services
PROJECT/SYSTEM

DATA PROCUREMENT DOCUMENT

Hernandez Engineering, Inc.
CONTRACTOR

February 01, 2007
DATE

National Aeronautics and
Space Administration

MSFC - Form 3461 (Rev September 1989)

National Aeronautics and Space Administration				DATA PROCUREMENT DOC. NO. 1107 ISSUE Basic	
DOCUMENT CHANGE LOG					
INCORPORATED REVISIONS OUTSTANDING REVISIONS			AS OF: 02-01-07	SUPERSEDING:	PAGE:
AUTHORITY	PORTION AFFECTED - PAGE NO./NO.				REMARKS
	INTRO	SGR	DRL	DRD	

MSFC - Form 3461-1 (Rev August 1970)

National Aeronautics and Space Administration **PAGE REVISION LOG**		DATA PROCUREMENT DOC. NO. ISSUE **1107** **Basic**	
NOTE: The current revision is denoted by a vertical line in the outer margin adjacent to the affected text.	AS OF: 02-01-07	SUPERSEDING:	PAGE:

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MSFC - Form 3461-2 (Rev August 1970)

1.0 INTRODUCTION

1.1 Scope: Subject to the Rights in Data clause, this Data Procurement Document (DPD) sets forth the data requirements in each Data Requirements Description (DRD) and shall govern that data required by the DPD for the contract. The contractor shall furnish data defined by the DRD's listed on the Data Requirements List (DRL) by category of data, attached hereto, and made a part of this DPD. Such data shall be prepared, maintained, and delivered to NASA in accordance with the requirements set forth within this DPD. In cases where data requirements are covered by a Federal Acquisition Regulation (FAR) or NASA FAR Supplement (NFS) clause, that clause shall take precedence over the DPD, consistent with clause FAR 52.215-8.

1.2 DPD Description: This DPD consists of a Document Change Log, a Page Revision Log, an Introduction, a Statement of General Requirements, DPD maintenance procedures, a DRL, and the DRD's.

1.2.1 General Requirements: The general requirements, as specified in paragraph 2.0 of this DPD, prescribe those requirements applicable to the preparation, maintenance, and delivery of data that are better defined in aggregate than in the individual DRD's.

1.2.2 Data Requirements List (DRL): Throughout the performance of the contract, the DRL provides a listing by data category of the data requirements of the DPD.

1.2.3 Data Requirements Descriptions (DRD's)

1.2.3.1 Each data requirement listed on the DRL is given complete definition by a DRD. The DRD prescribes content, format, maintenance instructions, and submittal requirements.

1.2.3.2 For the purpose of classification and control, DRD's of this DPD are grouped into the following broad functional data categories:

CATEGORY SYMBOL	DESCRIPTION
CD	Contractual Data
LS	Logistics Support
MA	Management
SA	Safety

1.2.3.3 The symbols representing these data categories form part of the prefix of the DRD identification number. The first numerical characters reflect the DPD number.

1.2.3.4 To facilitate the usage and maintenance of the DPD, the DRD's have been sectionalized in accordance with the above data categories.

1.2.3.5 The DRD's are filed by data category and are in alpha-numeric sequence as listed on the DRL page (or pages) that precedes the DRD's.

1.2.4 Document Change Log (DCL) and Page Revision Log (PRL): The Document Change Log chronologically records all revision actions that pertain to the DPD. The Page Revision Log describes the current revision status of each page of the DPD and thus, at all times, provides its exact configuration.

1.2.5 DPD Maintenance Procedures: Maintenance procedures define the detailed methods to be employed in maintaining the DPD. Detailed maintenance procedures are specified in paragraph 3.0 of this DPD.

1.3 Data Types for Contractual Efforts: The types of data and their contractually applicable requirements for approval and delivery are:

TYPE	DESCRIPTION
1*	All issues and interim changes to those issues require written approval from the requiring organization before formal release for use or implementation.
2*	NASA reserves a time-limited right to disapprove in writing any issues and interim changes to those issues. The contractor shall submit the required data to NASA for review not less than 45 calendar days** prior to its release for use. The contractor shall clearly identify the release target date in the "submitted for review" transmittal***. If the data is unacceptable, NASA will notify the contractor within 45 calendar days** from the date of submission, regardless of the intended release date***. The contractor shall resubmit the information for reevaluation if disapproved. The submittal is considered approved if the contractor does not receive disapproval or an extension request from NASA within 45 calendar days**.
3	These data shall be delivered by the contractor as required by the contract and do not require NASA approval. However, to be a satisfactory delivery, the data shall satisfy all applicable contractual requirements and be submitted on time.
4	These data are produced or used during performance of the contract and are retained by the contractor. They shall be delivered only when NASA requests in writing and shall be delivered in accordance with the instructions in the request. The contractor shall maintain a list of these data and shall furnish copies of the list to NASA when requested to do so.
5	These data are incidental to contract performance and are retained by the contractor in those cases where contracting parties have agreed that formal delivery is not required. However, the Contracting Officer or the Contracting Officer's Representative shall have access to and can inspect this data at its location in the contractor's or subcontractor's facilities, or in an electronic database accessible to the Government

* Note: Type 1 and Type 2 data may be placed under NASA configuration management control when designated by NASA. CM control requires the contractor to submit Type 1 and Type 2 data updates through Engineering Change Proposals (ECPs).

** Note: This time limit may be tailored for individual DPD's to meet the requirements of the procuring activity.

*** Note: If the contractor does not identify a release target date or if the intended release date is shorter than 45 calendar days from the date of submission, the 45 calendar days review cycle stands (or the tailored Type 2 time limitation for the specific procurement).

2.0 STATEMENT OF GENERAL REQUIREMENTS

2.1 Applicable/Reference Documents: Documents included as applicable documents in this DPD are the issue specified in the Statement of Work, and form a part of the DPD to the extent specified herein. Applicable documents listed in Item 15.2 of a DRD are applicable only to the preparation of the deliverable documentation described by that DRD.

References to documents other than applicable documents in the data requirements of this DPD may sometimes be utilized, and shall be indicated in 13. Remarks of the DRD. These do not constitute a contractual obligation on the contractor. They are to be used only as a possible example or to provide related information to assist the contractor in developing a response to that particular data requirement.

2.2 Subcontractor Data Requirements

2.2.1 The contractor shall specify to subcontractors and vendors, if any, the availability source of all data required for the satisfactory accomplishment of their contracts. The contractor shall validate these requirements for documents when appropriate; where the requirement concerns other contractor data, the contractor shall provide his subcontractor or vendor with the necessary documents. All such requests shall be accomplished under the auspices of the contractor.

2.2.2 Reference to subcontractor data in the contractor's responses is permissible, providing the references are adequate and include such identification elements as title, number, revision, etc., and a copy of the referenced data is supplied with the response document at time of delivery to NASA.

2.3 Data Distribution, Format, Data Restriction Marking, and Transmittal

2.3.1 Distribution: Distribution of required documentation shall be in quantities determined by the Contracting Officer. Recipient names and email (if applicable) addresses shall be noted on a separate distribution list to be furnished by the Contracting Officer. The Contracting Officer's letter may include other information pertinent to delivery of data, as required.

2.3.2 Format

2.3.2.1 Electronic Format: Electronic submission of data deliverables is preferred. Electronic deliverables shall be printable. Data deliverables shall be delivered to NASA in the format specified below unless a specific format is required by a DRD. Data submittals shall consist of a single Adobe Acrobat PDF file and the native format electronic file(s). The preferred native formats include Microsoft Word, Excel, PowerPoint or CAD drawing plot file, as appropriate. Where a single native format file is not possible, multiple files may be integrated into a single ZIP file for submission. The organization of the contents of the integrated ZIP file shall be made readily apparent to the reader, and each file within the integrated product shall be clearly identifiable and traceable within the organization of the integrated product. If files are fragmented, file names shall be labeled logically and contiguously, and the files shall be easily reassembled or merged (e.g. 1 filename, 2 filename, 2a filename, etc.). The software versions shall be confirmed prior to submittals.

2.3.2.2 Hardcopy Format: In addition to the electronic submittal, one hardcopy package of specific data deliverables shall be delivered to the NASA Contracting Officer for the Government contract file. This requirement is indicated in Item 15.4, Format of each DRD. The hardcopy package shall consist of the contractor's Transmittal Memo and one copy of the data deliverable.

2.3.3 Data Restriction Marking

2.3.3.1 Data Restriction Determination and Marking Requirements: The contractor shall determine the data restriction that applies to each data deliverable and mark the data restriction on the data coversheet, or indicate the data restriction in the data transmittal package if the data format precludes identification of data restriction directly in the data. The contractor shall make a determination for each individual data deliverable item, and shall not apply a default or blanket data restriction marking to all data deliverables (e.g., "data may be export restricted"). If NASA does not agree with the contractor applied data restriction, the NASA Contracting Officer shall return the data to the contractor, cancel the markings, or ignore the markings consistent with the procedures set forth in the "data rights" clause(s) contained in the contract.

2.3.3.2 Data Restriction Categories and Marking Statements: The contractor shall consider the following data restriction categories, as a minimum, and utilize specified marking statements.

If data delivered under this contract is subject to the International Traffic in Arms Regulations (ITAR), the data shall contain an "ITAR Notice" as follows:

International Traffic in Arms Regulations (ITAR) Notice

This document contains information which falls under the purview of the U.S. Munitions List (USML), as defined in the International Traffic in Arms Regulations (ITAR), 22 CFR 120-130, and is export controlled. It shall not be transferred to foreign nationals in the U.S. or abroad, without specific approval of a knowledgeable NASA export control official, and/or unless an export license/license exemption is obtained/available from the United States Department of State. Violations of these regulations are punishable by fine, imprisonment, or both.

If data delivered under this contract is subject to the Export Administration Regulations (EAR), the data shall contain the "EAR Notice" as follows:

Export Administration Regulations (EAR) Notice

This document contains information within the purview of the Export Administration Regulations (EAR), 15 CFR 730-774, and is export controlled. It may not be transferred to foreign nationals in the U.S. or abroad without specific approval of a knowledgeable NASA export control official, and/or unless an export license/license exception is obtained/available from the Bureau of Export Administration (BXA), United States Department of Commerce. Violations of these regulations are punishable by fine, imprisonment, or both.

If the contract contains FAR 52.227-14 *Alternate II*, the "Limited Rights Notice" may be applicable to data (other than computer software) delivered under this contract.

If the contract contains FAR 52.227-14 *Alternate III*, the "Restricted Rights Notice" may be applicable to computer software delivered under this contract.

If the contract contains FAR 52.227-20, the "SBIR Rights Notice" may be applicable to SBIR data delivered under this contract.

In accordance with the applicable data clause (e.g., FAR 52.227-14(c) or FAR 52.227-20(c)), the contractor may be able to assert a copyright claim in data delivered under this contract. When claim to copyright is made, the Contractor shall affix the applicable copyright notices of 17 U.S.C. 401 or 402 and acknowledgment of Government sponsorship (including contract number) to the data when such data are delivered to the Government.

2.3.4 Transmittal

2.3.4.1 Data shall be transmitted to NASA by email, CD or DVD, hardcopy, or other mechanism agreed to by the Contracting Officer, COTR, and Project representatives who are responsible to receive, index, and store the data deliverables.

2.3.4.2 If email is used to transmit data deliverables, the email size shall be 10 Megabytes or less to ensure receipt by the NASA email servers. Encrypted email format shall be used to transmit data which has been judged sensitive by the contractor (e.g., export controlled, limited rights data, SBIR, restricted computer software, copyrighted, etc.).

2.3.4.3 Data Transmittal Package: Each data transmittal package shall include:

a. Transmittal memorandum that specifies the meta-data below for each data transmittal:
   1. Contract number.
   2. Data Requirements Description (DRD) number.
   3. DRD data type (specified in Item 3 on the DRD).
   4. Submission date or milestone being satisfied.
   5. Document number and revision.
   6. Document title.
   7. File names of all files being delivered; file naming convention shall clearly identify the document being delivered.
   8. Distribution (as defined by the Contracting Officer's letter).
   9. Requested response date.
   10. Contractor assigned data restriction (export controlled, limited rights data, SBIR, restricted computer software, copyrighted, etc.) if not marked on data.
   11. NASA Records Retention Schedule (NRRS) number, if applicable. (See NPR 1441.1, NASA Records Retention Schedules)
b. Printable electronic files or hardcopy data.

2.3.5 Use of the MSFC Documentation Repository: If Program/Project requires the contractor to transmit data directly to the Repository, Marshall Policy Directive (MPD) 2210.1 specifies the requirements for utilizing the Documentation Repository. Electronic data deliverables should be transmitted directly to the Repository via a secure web page, available at https://webpub.nis.nasa.gov/submittal/index.html.Computer-Aided Design (CAD) drawings shall be submitted in the original native vector, Hewlett-Packard Graphic Language (HPGL) and raster image formats.

2.4 Printing: All printing, duplicating, or binding shall be in accordance with NFS 1852.208-81, Restrictions on Printing and Duplicating. Printing of formal reports and Type 1 and 2 data in book format shall be in accordance with the following general specifications:

a. Method of reproduction – offset/xerography.
b. Finished size – 8 1/2" X 11".
c. Paper – 20-pound opaque bond.
d. Cover – Litho cover stock.
e. Pages shall be printed on both sides; blank pages shall be avoided when possible.
f. Oversize pages shall be avoided when possible, but if necessary shall be folded to 8 1/2" X 11".
g. Binding shall be the most economical method commensurate with the size of the report and its intended use.

2.5 Contractor's Internal Documents: The contractor's internal documents shall be used to meet the data requirements of this DPD unless a specific format is required by the applicable DRD.

2.6 Document Identification: Type 1 and 2 documents published by the contractor and submitted in response to the data requirements of this DPD shall be identified within an organized identification numbering system prescribed to NASA by the contractor and, if applicable, as approved by NASA. For all data types, the document number, change legend, date, and title constitute the minimum identification of the specific document and shall appear on the cover and title page. The contract number shall also appear on the cover and title page as separate markings. The originator and organization shall be included on the title page. The document number, change legend, and date shall appear on each page of the document. In the front matter of each document, identify the DPD number and applicable DRD number(s) required for document preparation. Successive issues or revisions of documents shall be identified in the same manner as the basic issue and shall have appropriate change identification. Drawings and ECP's are excluded from the marking provisions of this paragraph. All Type 1 documentation, excluding configuration management requirements, shall be marked "PRELIMINARY PENDING NASA APPROVAL," and once approved shall be reissued with "APPROVED BY NASA" and the date and approval authority annotated on the cover.

2.7 Reference to Other Documents and Data Deliverables in Data Submittals: All referenced documents shall be made readily available to the cognizant NASA organization upon request. The contractor should make sure that the references are available to NASA in a manner which does not incur delays in the use of the response document. Reference may be made, within one data submittal, to other data submittals delivered in response to this DPD in those cases where the data required by one DRD may have been delivered by the contractor in response to another DRD. The reference to previously-submitted data shall include the applicable DRD number, data submittal version date, and location within the referenced document.

2.8 Maintenance of Type 1 Document Submittals

2.8.1 Revisions of Type 1 documentation may be accomplished either by individual page revision or by a complete reissue of the document identified in accordance with requirements of 2.7 above, with the exception of drawings (which shall be revised in accordance with contract configuration management requirements).

2.8.2 Individual page revisions shall be made as deemed necessary by the contractor or as directed by the Contracting Officer.

2.8.3 A Type 1 document shall be completely reissued when, in the opinion of the contractor and/or NASA, the document has been revised to the extent that it is unusable in its present state, or when directed by the Contracting Officer. When complete reissues are made, the entire contents of the document shall be brought up to date and shall incorporate revised pages. All revisions shall be recorded. A revision log shall identify complete reissues except for periodic reports and documents which are complete within themselves as final.

2.8.4 Changes of a minor nature to correct obvious typing errors, misspelled words, etc., shall only be made when a technical change is made, unless the accuracy of the document is affected.

2.8.5 All revised pages shall be identified by a revision symbol and a new date. Each document shall contain a log of revised pages that identify the revision status of each page with the revision symbol. This list shall follow the table of contents in each document. The line or lines revised on a given page shall be designated by the use of vertical line in the margin of the page, and the change authority shall be indicated adjacent to the change.

2.8.6 Contractor Type 1 documents shall not be submitted containing pen and ink markups which correct, add to, or change the text, unless schedule problems exist and approval is obtained in writing from the Contracting Officer. Such markups, however, shall not exceed 20 percent of the page content and shall be acceptable provided that the reproduced copies are legible. In addition, hand-drawn schematics, block diagrams, data curves, and similar charts may be used in original reports in lieu of formally prepared art work, as long as legibility of copies is not impaired. Acceptability shall be determined by the Contracting Officer.

3.0 DPD MAINTENANCE PROCEDURES

3.1 NASA-Initiated Change: New and/or revised data requirements shall be incorporated by contract modification to which the new or revised portion of the DPD shall be appended. The contractor shall notify the Contracting Officer in the event a deliverable data requirement is imposed and is not covered by a DRD, or when a DRD is changed by a contract modification and for which no revision to DPD is appended. In such cases, the contractor shall submit the requested changes to NASA for approval. See paragraph 3.3.1 for change procedures.

3.2 Contractor-Initiated Change: Contractor-proposed data requirements, or proposed changes to existing requirements shall be submitted to NASA for approval.

3.3 DPD Change Procedures

3.3.1 Changes to a contractual issue of this DPD shall be identified by NASA on the Document Change Log and Page Revision Log. The actual revised material on the DPD page shall be identified by placing a heavy vertical line in the right-hand margin extending the entire length of the change. In addition, the numerical control number of the contractual direction authorizing the change shall be placed adjacent to the vertical revision line. These revision identifiers shall be used to reflect the current revision only; any previous symbols on a page shall be deleted by the current revision.

3.3.2 The date of the contractual direction paper, e.g., Change Order, Supplemental Agreement, or Contracting Officer's letter shall be entered under the "Status " column of the Page Revision Log adjacent to the affected page or DRD number, and in the "as of" block. The date that was in the "as of" block shall be entered in the "Superseding" block.

3.3.3 The Document Change Log entitled "Incorporated Revisions" shall be changed to indicate the number, portions affected, and associated Supplemental Agreement number, if applicable.

3.3.4 The Document Change Log entitled "Outstanding Revisions" is changed periodically to indicate outstanding Change Orders and Contracting Officer notification letters.

3.4 DPD Reissues

3.4.1 When conditions warrant, the DPD shall be reissued by NASA and shall supersede the existing DPD in its entirety. Reissues shall be issued by contractual direction.

3.4.2 All revision symbols (vertical lines and contractual direction control numbers) shall be removed from all pages; revision dates shall remain in the Date Revised block on DRD's that have been revised. The issue symbol, which shall commence with "A" and progress through "Z," shall be entered in the DPD identification block of each DRD page of the DPD.

Safety and Mission Assurance Services
Data Requirements List

DRD	DATA TYPE	TITLE	OPR
CD - Contract Data			
1107CD-001	2	Information Technology Security Plans	IS02
LS – Logistics Support			
1107LS-001	2	Government Property Management Plan	AS41
MA - Management			
1107MA-001	1	Management Plan	QD01
1107MA-002	2	Evaluation and Assessment Reports	QD01
1107MA-003	2	MSFC Safety, Reliability, Maintainability and Quality Assurance (SRM&QA) Documents	QD01
1107MA-004	2	Problem Assessment Center (PAC) Operations Plan	QD01
1107MA-005	2	Management Status Review (MSR) Input	QD01
1107MA-006	2	Organizational Conflict of Interest (OCI) Avoidance Plan	PS33
1107MA-007	3	Contractor Employee Clearance Document	AS50
1107MA-008	3	Financial Management Report (533M and 533Q)	RS40
1107MA-009	3	Bi-weekly Notes	QD01
1107MA-010	3	Badged Employee and Remote IT User List	AS50
1107MA-011	3	Make or Buy Plan	QD01
SA - Safety			
1107SA-001	1	Personnel Training and Certification Plan	QD40
1107SA-002	2	Safety, Health, and Environmental (SHE) Plan	QD50/AS10
1107SA-003	3	Mishap and Safety Statistics Reports	QD50

DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.:** 1107 **ISSUE:** Basic
2. **DRD NO.:** **1107CD-001**
3. **DATA TYPE:** 2
4. **DATE REVISED:**
5. **PAGE:** 1/1

6. **TITLE:** Information Technology Security Plans

7. **DESCRIPTION/USE:** To document information technology security risk management and safeguards for protection of unclassified NASA electronic information and data processed by Federal general support computer systems and major software applications.

8. **OPR:** IS02 9. **DM:** QD01

10. **DISTRIBUTION:** Per Contracting Officer's letter

11. **INITIAL SUBMISSION:** 45 days after Authority to Proceed (ATP)

12. **SUBMISSION FREQUENCY:** Revise as required

13. **REMARKS:** The information technology security plans shall be consistent with and further detail the approach contained in the offeror's proposal or sealed bid that resulted in the award of this contract and in compliance with the requirements stated in NFS 1852.204-76. Reference is made to NPR 2810.1, *Security of Information Technology* and NFS 1804.470-3, *Security plan for unclassified Federal Information Technology systems.*

14. **INTERRELATIONSHIP:** PWS paragraph 7.6

15. **DATA PREPARATION INFORMATION:**

15.1 **SCOPE:** Information Technology Security Plans shall document the safeguards necessary to ensure sufficient availability, integrity, and confidentiality of that information accessed or managed within the systems and/or applications, based on the contractor's assessment of risks.

15.2 **APPLICABLE DOCUMENTS:**

NFS 1852.204-76	*Security Requirements for Unclassified Information Technology Resources*
NIST SP 800-18	*Guide for Developing Security Plans for Information Technology Systems*

15.3 **CONTENTS:** The Information Technology Security Plan shall meet the requirements of NFS 1852.204-76. The plan shall describe the contractor's processes for implementing information security including personnel background screening, personnel awareness and training, information protection, and security incident response.

Additionally, a separate system-level Information Technology System Security Plan shall be prepared for each Federal general support computer system or major software application managed by the contractor and/or subcontractor personnel in the performance of this contract. The Information Technology System Security Plan(s) shall meet the requirements of NIST SP 800-18.

15.4 **FORMAT:** Contractor format for the Information Technology Security Plan is acceptable as long as the guidance described in NFS 1852.204-76 is followed. The Information Technology System Security Plan format shall be per NIST SP 800-18.

15.5 **MAINTENANCE:** Changes shall be incorporated by change page or complete reissue.

DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.:** 1107 **ISSUE:** Basic
2. **DRD NO.:** **1107LS-001**
3. **DATA TYPE:** 2
4. **DATE REVISED:**
5. **PAGE:** 1/1

6. **TITLE:** Government Property Management Plan

7. **DESCRIPTION/USE:** To describe the method of controlling and managing Government property.

8. **OPR:** AS41 9. **DM:** QD01

10. **DISTRIBUTION:** Cognizant property administrator

11. **INITIAL SUBMISSION:** Preliminary three months after Authority to Proceed (ATP)

12. **SUBMISSION FREQUENCY:** Final one year after ATP, revise as required

13. **REMARKS:** This document shall be the official contract requirements document for the control and identification of all Government property.

14. **INTERRELATIONSHIP:** PWS paragraph 2.2

15. **DATA PREPARATION INFORMATION:**

15.1 **SCOPE:** The Government Property Management Plan defines the contractor's methods of care, accounting, and control of Government property.

15.2 **APPLICABLE DOCUMENTS**

FAR	*Federal Acquisition Regulation, Part 45*
NPR 5100.4B	*Federal Acquisition Regulation Supplement, (NASA/FAR Supplement) Part 18-45* and latest revisions thereto

15.3 **CONTENTS:** This plan shall satisfy the requirements of the documents listed in 15.2, and the contract. This plan shall consist of those procedures which constitute the contractor's property management system and shall include the following categories:

a. Property management.
b. Acquisition.
c. Receiving.
d. Identification.
e. Records.
f. Movement.
g. Storage.
h. Physical inventories.
i. Reports.
j. Consumption.
k. Utilization.
l. Maintenance.
m. Subcontractor control.
n. Disposition.
o. Contract close-out.

15.4 **FORMAT:** Contractor format is acceptable.

15.5 **MAINTENANCE:** Changes shall be incorporated by change page or complete reissue.

DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.**: 1107 **ISSUE**: Basic
2. **DRD NO.**: **1107MA-001**
3. **DATA TYPE**: 1
4. **DATE REVISED**:
5. **PAGE**: 1/1

6. **TITLE**: Management Plan

7. **DESCRIPTION/USE**: To provide a description of the contractor's overall management system and organization for accomplishing the requirements set forth in the contract.

8. **OPR**: QD01 9. **DM**: QD01

10. **DISTRIBUTION**: Per Contracting Officer's letter

11. **INITIAL SUBMISSION**: 30 days after Authority to Proceed (ATP).

12. **SUBMISSION FREQUENCY**: Revise as required

13. **REMARKS**:
14. **INTERRELATIONSHIP**: PWS paragraph 2.0

15. **DATA PREPARATION INFORMATION**:

15.1 **SCOPE**: The Management Plan shall describe the contractor's concept plans, practice, and approach for accomplishing the requirements set forth in the contract, i.e., managing and controlling Task Order Requests (TORs), Task Order Plans (TOPs), Task Orders (TOs) and TO sub-elements, and management interfaces. The plan shall be in such detail as necessary to convey the contractor's internal procedures.

15.2 **APPLICABLE DOCUMENTS**: None

15.3 **CONTENTS**: The Management Plan shall include:

a. Description of the project tasks to be accomplished and an outline of methods by which the contractor proposes to accomplish each task down to the Level II WBS task level.
b. Description of management concepts, plans, project management and task/control systems, organizational approach, approach to quality, and communication channels between the contractor and the Government. This shall include descriptions, flow charts, schedules, and other documentation necessary to give a comprehensive plan of organization and accomplishment.

15.4 **FORMAT**: Contractor format is acceptable.

15.5 **MAINTENANCE**: Changes shall be incorporated by change page or complete reissue.

DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.:** 1107 **ISSUE:** Basic
2. **DRD NO.:** **1107MA-002**
3. **DATA TYPE:** 2
4. **DATE REVISED:**
5. **PAGE:** 1/1

6. **TITLE:** Evaluation and Assessment Reports

7. **DESCRIPTION/USE:** Provide the S&MA Directorate with the information required to accomplish its mission in support of MSFC Programs and Projects.

8. **OPR:** QD01 9. **DM:** QD01

10. **DISTRIBUTION:** Per Contracting Officer's letter

11. **INITIAL SUBMISSION:** As required

12. **SUBMISSION FREQUENCY:** If requested, for each document evaluated and each milestone review.

13. **REMARKS:**

14. **INTERRELATIONSHIP:** PWS paragraph 11.2

15. **DATA PREPARATION INFORMATION:**

15.1 **SCOPE:** The Evaluation and Assessment Reports shall be for various types of reviews for comment, analyses and evaluations required by the Statement of Work.

15.2 **APPLICABLE DOCUMENTS:** None

15.3 **CONTENTS:** The Evaluation and Assessment Reports shall review comments, analyses and evaluations of various types of documents for the purpose of determining adequacy and compliance with requirements. Such as: NASA Handbooks, MSFC requirements documents, Level II requirements documents, contractor or Government drawings, specifications, FMEA's, CIL's, Hazard Analyses, Quality Plans and Procedures, Safety Plans, Test Plans and Procedures, Software, ECP/ECR/SCR's, OMI/OMRSD's, and other documents applicable to MSFC Programs and Projects.

The contractor shall detail deficiencies and make recommendations for approval, disapproval, and required changes. The contractor shall also provide trip reports.

15.4 **FORMAT:** Contractor format is acceptable as long as it fulfills the needs of the task managers.

15.5 **MAINTENANCE:** None required

DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.:** 1107 **ISSUE:** Basic
2. **DRD NO.:** **1107MA-003**
3. **DATA TYPE:** 2
4. **DATE REVISED:**
5. **PAGE:** 1/1

6. **TITLE:** MSFC Safety, Reliability, Maintainability and Quality Assurance (SRM&QA) Documents

7. **DESCRIPTION/USE:** Provide the S&MA Directorate with the plans, procedures, briefing materials and other documents required in accomplishment of SRM&QA activities.

8. **OPR:** QD01 9. **DM:** QD01

10. **DISTRIBUTION:** Per Contracting Officer's letter

11. **INITIAL SUBMISSION:** As required

12. **SUBMISSION FREQUENCY:** As required and requested by the S&MA Directorate.

13. **REMARKS:** Reference is made to NASA and MSFC Directives and Standards as applicable.

14. **INTERRELATIONSHIP:** PWS paragraph 11.1

15. **DATA PREPARATION INFORMATION:**

15.1 **SCOPE:** The MSFC Safety, Reliability, Maintainability and Quality Assurance (SRM&QA) Documents shall be various types of MSFC SRM&QA plans, procedures and requirements documents.

15.2 **APPLICABLE DOCUMENTS:**

15.3 **CONTENTS:** The MSFC Safety, Reliability, Maintainability and Quality Assurance (SRM&QA) Documents shall be prepared for MSFC S&MA approval and use the various types of plans, procedures, and other documentation for MSFC in-house SRM&QA activities. Examples are quality plans and procedures, verification analyses, safety analyses, FMEA's, CIL's, reliability and maintainability analyses and assessments, and other types of documents detailed in the Statement of Work. They shall also have the capability of preparing charts (viewgraphs) and writing documents such as training plans and SRM&QA management plans. The documents shall be prepared in accordance with NASA or MSFC Directives and standards associated with the preparation of the different documents requested.

15.4 **FORMAT:** The contractor shall use the format established by the directives governing the preparation of the specific documents, otherwise contractor format will be acceptable.

15.5 **MAINTENANCE:** Maintained current by page revision or complete reissue to reflect all approved changes.

DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.:** 1107 **ISSUE:** Basic
2. **DRD NO.:** **1107MA-004**
3. **DATA TYPE:** 2
4. **DATE REVISED:**
5. **PAGE:** 1/1

6. **TITLE:** Problem Assessment Center (PAC) Operations Plan

7. **DESCRIPTION/USE:** Update the PAC Operations plan.

8. **OPR:** QD01 9. **DM:** QD01

10. **DISTRIBUTION:** Per Contracting Officer's letter

11. **INITIAL SUBMISSION:** Sixty (60) days after Authority to Proceed (ATP).

12. **SUBMISSION FREQUENCY:** Revisions as required.

13. **REMARKS:**

14. **INTERRELATIONSHIP:** PWS paragraph 5.5.1

15. **DATA PREPARATION INFORMATION:**

15.1 **SCOPE:** The Problem Assessment Center (PAC) Operations Plan identifies the organization, implementation and control of the PAC. The plan shall also identify the periodic reports the PAC will issue to fulfill customer needs.

15.2 **APPLICABLE DOCUMENTS:**

NSTS 08126	*Space Shuttle Problem Reporting and Corrective Action System Requirements*
SSP 30223	*International Space Station Program Problem Reporting and Corrective Action System Requirements*
XXX	CLV PRACA documents when baselined

15.3 **CONTENTS:** The PAC Operations Plan shall provide identification of the disciplines, controls and interfaces necessary to implement operation of the PAC, and shall satisfy the requirements of the documents listed in 15.2.

15.4 **FORMAT:** The format of the plan shall permit accommodation of special requirements of new projects via appendices. Generally, the order of tasks shall be in accordance with paragraph 5.5 of the PWS.

15.5 **MAINTENANCE:** Changes shall be incorporated by change page or complete reissue. The Plan shall be reviewed at least once each year to identify necessary changes.

DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.**: 1107 **ISSUE**: Basic
2. **DRD NO.**: **1107MA-005**
3. **DATA TYPE**: 2
4. **DATE REVISED**:
5. **PAGE**: 1/1
6. **TITLE**: Management Status Review (MSR) Input
7. **DESCRIPTION/USE**: To provide data for the assessment of contract progress by task order (TO). To provide visibility to the contractor and MSFC Management of actual and potential problems and their progress toward meeting the requirements of the contract
8. **OPR**: QD01 9. **DM**: QD01
10. **DISTRIBUTION**: Per Contracting Officer's letter
11. **INITIAL SUBMISSION**: First MSR after Authority to Proceed (ATP)
12. **SUBMISSION FREQUENCY**: Monthly thereafter. The report shall be submitted at the MSR.
13. **REMARKS**:
14. **INTERRELATIONSHIP**: PWS paragraphs 2.0, 2.7
15. **DATA PREPARATION INFORMATION**:

15.1 **SCOPE**: The Management Status Review (MSR) Input provides a comprehensive status on all active TOs and include the necessary information to assess status and identify problems that need resolution for accomplishment of the contract tasks.

15.2 **APPLICABLE DOCUMENTS**: None

15.3 **CONTENTS**: The Management Status Review (MSR) Input shall include:

a. Review of work accomplished, including quantitative description, during the reporting period.
b. Discussion of non-routine tasks planned for the next reporting period.
c. Indication of any problems, which may impede performance or impact performance, schedule or cost.
d. Schedule with milestones.
e. Labor hours expended by labor category showing overtime hours separately.
f. Costs expended (by cost element) versus negotiated cost and TO/TO sub-element funding received.
g. Cost detail should be delineated in terms of those government unique project numbers (UPN) funding each TO/TO sub-element.
h. Any other information that may assist the technical evaluators in evaluating the technical and administrative program; such as innovative processes, cost-reduction initiatives, etc.

15.4 **FORMAT**: Contractor format similar to government MSR charts is acceptable, hard copy charts with electronic presentation media is strongly encouraged.

15.5 **MAINTENANCE**: None required

DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.**: 1107 **ISSUE**: Basic 2. **DRD NO.**: **1107MA-012**
3. **DATA TYPE**: 2 4. **DATE REVISED**:
5. **PAGE**: 1/2

6. **TITLE**: Organizational Conflict of Interest (OCI) Avoidance Plan

7. **DESCRIPTION/USE**: To demonstrate to the Government that the Contractor, when using subject matter experts, will mitigate organizational conflicts of interest and ensure that the contractor provides unbiased, impartial advice and adequately protects sensitive, proprietary data belonging to other contractors.

8. **OPR**: PS33 9. **DM**: QD01

10. **DISTRIBUTION**: Per Contracting Officer's letter

11. **INITIAL SUBMISSION**: 5 working days following Authority to Proceed (ATP)

12. **SUBMISSION FREQUENCY**: Update as required

13. **REMARKS**: Reference is made to Contract Clauses H.2, H.3, H.14, and K.3; NFS Part 1809.505-4, *"Obtaining Access to Sensitive Information;"* NFS Part 1837.203-70, *"Providing Contractors Access to Sensitive Information;"* NFS Part 1837.203-71, *"Release of Contractor's Sensitive Information;"* NFS Part 1852.237-72, *"Access to Sensitive Information;"* and NFS 1852.237-73, *"Release of Sensitive Information."*

14. **INTERRELATIONSHIP**: PWS paragraphs 2.0

15. **DATA PREPARATION INFORMATION**:

15.1 **SCOPE**: The Organizational Conflict of Interest Avoidance Plan demonstrates that no organizational conflict of interest exists or that any such potential conflicts have been adequately avoided or mitigated when using subject matter experts connected to any prime contractor or subcontractor performing design, development, and/or delivery of space flight hardware, software, mission integration services or other critical systems related to MSFC.

15.2 **APPLICABLE DOCUMENTS**: None

15.3.1 **CONTENTS**: The Organizational Conflict of Interest Avoidance Plan shall include the following:

a. Organizational conflicts of interest pertaining to impaired objectivity associated with the use of subject matter experts shall either:
   1. Warrant that the individuals have no conflicting business relationships as defined in Clauses H.2, H.3, and K.3 in the solicitation, or
   2. Describe all business relationships that might create a conflict with the performance work statement in this order by demonstrating:
      (a) That the management reporting chains between this order and the work performed by the technical subject matter experts for the conflicting business relationship are separated from each other.
      (b) That the subject matter experts when performing this order are physically separated from the portion of the company performing the work for the conflicting business relationships.

DRD Continuation Sheet

TITLE: Organizational Conflict of Interest (OCI) Avoidance Plan DRD NO.: 1107MA-006
DATA TYPE: 2 PAGE: 2/2

15. DATA PREPARATION INFORMATION (CONTINUED):

(c) That each subject matter expert performing this order signs an express, binding, written agreement setting forth all responsibilities and duties to avoid organizational conflicts of interest and to protect sensitive data provided under this order.

(d) That techniques are in place to ensure that the contractor shall not favor the conflicting business relationships and will avoid the appearance of conflicts of interest.

b. With regard to access to nonpublic information by the subject matter experts, the avoidance plan shall contain a plan to safeguard all proprietary/sensitive data the contractor receives. This plan shall include:

1. A provision that subject matter experts shall not disclose the proprietary/sensitive data relating to this order.
2. A provision that subject matter experts only shall use the proprietary/sensitive data relating to this order.
3. A provision that information, whether in hard copy or on electronic media, shall be marked, handled, stored, and destroyed in order to preclude an unauthorized disclosure of information.
4. A provision that information technology shall be protected to prevent unauthorized disclosure of information.
5. A provision that employees performing the effort must sign an express binding written agreement clearly agreeing to protect sensitive data.
6. A requirement that subcontractors have appropriate OCI avoidance procedures in place for the use of subject matter experts.
7. A requirement for periodic self-audits, the results of which shall be made available to the Government.
8. Initial and periodic refresher OCI training for the contractor and subject matter experts working on the order.
9. A Description of organizational and employee sanctions for violation of the OCI order clause or OCI Avoidance Plan provisions.
10. Provisions on record keeping requirements regarding OCI (e.g., training, written agreements). The contractor shall make these records available to and cooperate with any neutral third party the Government assigns to review adherence to their OCI mitigation plan.
11. A provision requiring the contractor to report any real, apparent, or potential conflict of interest that may arise to the Contracting Officer.
12. A provision requiring the contractor to update the OCI Avoidance Plan for the subject matter experts upon occurrence of any event that will cause a change to the plan.

15.4 **FORMAT**: Contractor format is acceptable.

15.5 **MAINTENANCE**: Changes shall be incorporated by change page or complete reissue.

DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.:** 1107 **ISSUE:** Basic
2. **DRD NO.:** **1107MA-007**
3. **DATA TYPE:** 3
4. **DATE REVISED:**
5. **PAGE:** 1/1

6. **TITLE:** Contractor Employee Clearance Document

7. **DESCRIPTION/USE:** To ensure that badged contractor employees no longer requiring Center access properly clear all accounts upon termination of employment.

8. **OPR:** AS50 9. **DM:** QD01

10. **DISTRIBUTION:** Per Contracting Officer's letter

11. **INITIAL SUBMISSION:** Immediately upon termination of employment.

12. **SUBMISSION FREQUENCY:** As required

13. **REMARKS:**

14. **INTERRELATIONSHIP:** PWS paragraph 11.3

15. **DATA PREPARATION INFORMATION:**

15.1 **SCOPE:** The Contractor Employee Clearance Document provides verification that all badged employees have properly cleared all accounts upon termination of employment.

15.2 **APPLICABLE DOCUMENTS:** None

15.3 **CONTENTS:** The Contractor Employee Clearance Document shall contain all the information required by MSFC Form 383-1.

15.4 **FORMAT:** MSFC Form 383-1, "Contractor Employee Clearance Document".

15.5 **MAINTENANCE:** None required

DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.:** 1107 **ISSUE:** Basic
2. **DRD NO.:** **1107MA-008**
3. **DATA TYPE:** 3
4. **DATE REVISED:**
5. **PAGE:** 1/2

6. **TITLE:** Financial Management Report (533M and 533Q)

7. **DESCRIPTION/USE:** To provide quarterly and monthly financial reports for monitoring program costs. The 533M and 533Q reports are the official cost documents used at NASA for cost type, price redetermination, and fixed price incentive contracts.

8. **OPR:** CS40 9. **DM:** QD01

10. **DISTRIBUTION:** Per Contracting Officer's letter

11. **INITIAL SUBMISSION:** An initial report in the 533Q format is required within 30 working days after Authority to Proceed. Initial 533M reporting shall begin no later than 30 days after the incurrence of cost.

12. **SUBMISSION FREQUENCY:** 533Q: Quarterly; no later than the 15th day of the month preceding the quarter being reported in columns 8a, 8b, and 8c. 533M: Monthly; no later than 10 working days following the close of the contractor's accounting month.

13. **REMARKS:** The data contained in the reports shall be auditable using Generally Accepted Accounting Principles.

14. **INTERRELATIONSHIP:** PWS paragraph 2.0

15. **DATA PREPARATION INFORMATION:**

15.1 **SCOPE:** The Financial Management Report provides data on accumulated costs and funding projections for management of the contract.

15.2 **APPLICABLE DOCUMENTS:**

NPR 9501.2D *NASA Contractor Financial Management Reporting*

15.3 **CONTENTS:** The elements of cost for financial reporting shall be mutually agreed by the contractor and NASA project office. The Financial Management Reports (533M and 533Q) shall be prepared in accordance with the detailed instructions provided on the reverse side of the NASA Forms 533M and 533Q and the supplementary instructions set forth in NPR 9501.2D, Chapter 3.

a. 533Q Quarterly Report shall include actual cost and cost projections at the total contract level. The initial 533Q report shall reflect the original contract value detailed by negotiated reporting categories and serve as the original baseline plan.
b. 533M Monthly Report shall include actual cost and cost projections at the total contract level.

A summary level page reflecting cumulative total contract cost since inception shall be included. Reconciliation between the 533M/533Q and the Cost Performance Report (CPR) or Modified Cost Performance Report (M/CPR) shall be submitted as an attachment to the 533M/533Q Report.

A backup report shall be provided that identifies the following fields: Task Order (TO), TO/ sub-element, reporting category, PR number, WBS, cost center, fund, current month actuals, cumulative actuals, funding received, variance next month's estimate and monthly actuals at the individual project/program level.

DRD Continuation Sheet

TITLE: Financial Management Report (533M and 533Q) **DRD NO.:** **1107MA-008**
DATA TYPE: 3 **PAGE:** 2/2

15. **DATA PREPARATION INFORMATION (CONTINUED):**

15.4 **FORMAT**: Contractor internal automated printout reports may be substituted for 533M/533Q forms (with NASA Contracting Officer's approval) provided that the contractor report contains all of the data elements required by NASA Forms 533M and 533Q. Electronic submission of contractor data is strongly encouraged (reference NPR 9501.2, paragraph 3.7).

15.5 **MAINTENANCE**: None required

DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.:** 1107 **ISSUE:** Basic 2. **DRD NO.:** **1107MA-009**
3. **DATA TYPE:** 3 4. **DATE REVISED:**
5. **PAGE:** 1/1

6. **TITLE:** Bi-weekly Notes

7. **DESCRIPTION/USE:** To provide data for the assessment of contract progress. To provide visibility to contractor and MSFC Management of actual and potential problems and progress toward meeting the requirements of the contract.

8. **OPR:** QD01 9. **DM:** QD01

10. **DISTRIBUTION:** Per Contracting Officer's letter

11. **INITIAL SUBMISSION:** First bi-weekly note submittal after Authority to Proceed (ATP).

12. **SUBMISSION FREQUENCY:** Every two weeks to correspond with the input to the Center's bi-weekly note submittal or as directed by the COTR.

13. **REMARKS:**

14. **INTERRELATIONSHIP:** PWS paragraphs 2.0, 2.7

15. **DATA PREPARATION INFORMATION:**

15.1 **SCOPE:** The Bi-weekly Notes provides a status on active tasks and include the necessary information to assess status and identify problems that need resolution for accomplishment of the contract tasks.

15.2 **APPLICABLE DOCUMENTS:** None

15.3 **CONTENTS:** The Bi-weekly Notes shall include:

a. Review of work accomplished.
b. Indications of any problems which may impede performance or impact performance, schedule or cost.
c. Any other information that may assist the technical evaluators in evaluating the contract.

15.4 **FORMAT:** Center bi-weekly note format is acceptable.

15.5 **MAINTENANCE:** None required

DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.:** 1107 **ISSUE:** Basic
2. **DRD NO.:** **1107MA-010**
3. **DATA TYPE:** 3
4. **DATE REVISED:**
5. **PAGE:** 1/1

6. **TITLE:** Badged Employee and Remote IT User Listing

7. **DESCRIPTION/USE:** To assist NASA in conducting contractor floor checks and to determine if the employees meet the minimum background investigation requirements.

8. **OPR:** AS50 9. **DM:** QD01

10. **DISTRIBUTION:** Per Contracting Officer's letter

11. **INITIAL SUBMISSION:** No later than 10 working days after Authority to Proceed (ATP)

12. **SUBMISSION FREQUENCY:** Update quarterly or as personnel change occurs. If deemed necessary by the Contracting Officer, the contractor shall submit the list at times other than stated.

13. **REMARKS:** Reference is made to Federal Acquisition Regulation (FAR) Clause, FAR 52.215-2, *Audit and Records--Negotiations* (June 1999), NPR 1600.1, *NASA Security Program Procedural Requirements*, and Homeland Security Policy Directive 12.

14. **INTERRELATIONSHIP:** PWS paragraph 2.0

15. **DATA PREPARATION INFORMATION:**

15.1 **SCOPE:** The Badged Employee and Remote IT User Listing shall provide NASA with a list of all MSFC badged contractor employees, as well as, any contractor remote IT users who will have access to the MSFC IT system.

15.2 **APPLICABLE DOCUMENTS:** None

15.3 **CONTENTS:** The Badged Employee and Remote IT User Listing shall include the following information for each employee: employee's full name (first and middle names must be birth names), Social Security Number (SSN), date of birth, place of birth, duty position, duty location (building/room number), shift assignment, and supervisor's name. Additionally, if applicable, the type of security background check already completed [National Agency Check – Local Agency Checks and Credit Check (NACLC) or Single Scope Background Investigation (SSBI)] and the date it was completed.

15.4 **FORMAT:** Contractor format using Excel Spreadsheet is acceptable.

15.5 **MAINTENANCE:** None required

DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.**: 1107 **ISSUE**: Basic
2. **DRD NO.**: **1107MA-011**
3. **DATA TYPE**: 3
4. **DATE REVISED**:
5. **PAGE**: 1/2

6. **TITLE**: Make or Buy Plan

7. **DESCRIPTION/USE**: To outline and define those end items to be manufactured (make) or procured (buy).

8. **OPR**: QD01 9. **DM**: QD01

10. **DISTRIBUTION**: Per Contracting Officer's letter

11. **INITIAL SUBMISSION**: With proposal

12. **SUBMISSION FREQUENCY**: Revise as required

13. **REMARKS**: Reference is made to FAR 15.407-2, *Make or Buy Programs*

14. **INTERRELATIONSHIP**: PWS paragraph 2.0

15. **DATA PREPARATION INFORMATION**:

15.1 **SCOPE**: The Make or Buy Plan establishes the content, format, and maintenance requirements for a "make or buy" plan of important components or subsystems.

15.2 **APPLICABLE DOCUMENTS**:
NFS 1852.215-78 *Make or Buy Program Requirements*

15.3 **CONTENTS**: The Make or Buy Plan shall contain the following in accordance with NFS 1852.215-78:

a. Description of each major item or work effort.
b. Categorization of each major item or work effort as "must make", "must buy", or "can either make or buy."
c. For each item or work effort categorized as "can either make or buy", a proposed either to "make" or "buy".
d. Reasons for categorizing items and work effort as "must make" or "must buy" and proposing to "make" or "buy" those categorized as "can either make or buy". The reasons must include the consideration given to the applicable evaluation factors described in the solicitation and be in sufficient detail to permit the Contracting Officer to evaluate the categorization and proposal.
e. Designation of the offerer's plant or division proposed to make each item or perform each work effort and a statement as to whether the existing or proposed new facility is in or near a labor surplus area.
f. Identification of proposed subcontractors, if known, and their location and size status.
g. Any recommendation to defer make-or-buy decisions when categorization of some items or work efforts is impracticable at the time of submission.

DRD Continuation Sheet

TITLE: Make or Buy Plan **DRD NO.:** 1107MA-011
DATA TYPE: 3 **PAGE:** 2/2

15. **DATA PREPARATION INFORMATION (CONTINUED):**
Note: The information required from a contractor in a make-or-buy plan shall be confined to those major items or work efforts that normally would require company management review of the make-or-buy decision because they are complex, costly, needed in large quantities, or require additional facilities to produce. Raw materials, commercial items, and off-the-shelf items shall not be included, unless their potential impact on contract cost or schedule is critical. Normally, make-or-buy programs should not include items or work efforts estimated to cost less than 1 percent of the total estimated contract price of any minimum dollar set by the agency.

15.4 **FORMAT**: Contractor format is acceptable. The plan shall be sub-divided to categorize each item by subsystem, major components, assemblies, subassemblies, and parts to be processed or manufactured.

15.5 **MAINTENANCE**: Changes shall be incorporated by change page or complete reissue.

DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.:** 1107 **ISSUE:** Basic 2. **DRD NO.:** **1107SA-001**
3. **DATA TYPE:** 1 4. **DATE REVISED:**
5. **PAGE:** 1/2

6. **TITLE:** Personnel Training and Certification Plan

7. **DESCRIPTION/USE:** To provide the contractor and the Government a baseline document for definition of training and personnel certification criteria and procedures to be implemented.

8. **OPR:** QD40 9. **DM:** QD01

10. **DISTRIBUTION:** Per Contracting Officer's letter

11. **INITIAL SUBMISSION:** Ten (10) days after Authority to Proceed (ATP)

12. **SUBMISSION FREQUENCY:** Update as required

13. **REMARKS:**
14. **INTERRELATIONSHIP:** PWS paragraph 2.5

15. **DATA PREPARATION INFORMATION:**

15.1 **SCOPE:** The Personnel Training and Certification Plan provides for training, certification, and re-certification of personnel engaged in hazardous operations and performance of critical processes. The purpose of a training and certification program is to assure that all personnel are capable of performing their duties and work assignments without endangering themselves, fellow employees, equipment and/or facilities.

15.2 **APPLICABLE DOCUMENTS:**

MPR 8715.1	*Marshall Safety, Health, and Environmental (SHE) Program*
MPR 3410.1	*Training*
MWI 3410.1	*Personnel Certification Program*
MWI 3410.2	*Personnel Certification for NDE*
QD10-QA-022	*Visual Weld Inspection*
ANSI B31.1	*Code for Power Piping*
ANSI B31.3	*Code for Chemical Plant and Refinery Piping*
ANSI/AWS D1.1	*Structural Welding Code/Steel*
ANSI/AWS D1.2	*Structural Welding Code/Aluminum*
NPR 8715.3	*NASA Safety Manual*

15.3 **CONTENTS:** The Personnel Training and Certification Plan shall include criteria which relate to work classification and skills, education, experience, training, and other qualifications necessary to assure safe and efficient operation and maintenance of inspection and test stand systems and high quality workmanship. The plan shall fulfill the requirements of the applicable documents listed in 15.2 and include:

a. Training and certification program.
   1. General.
      (a) Program description.
      (b) Program administration.
      (c) Certification duration.
      (d) Definitions.

DRD Continuation Sheet

TITLE: Personnel Training and Certification Plan **DRD NO.:** 1107SA-001
DATA TYPE: 1 **PAGE:** 2/2

15. **DATA PREPARATION INFORMATION (CONTINUED):**

(e) Job description summaries.
(f) Task assignments per job description.
(g) Skills required per job description.

2. Certification requirements/skills.
   (a) Education.
   (b) Experience/work history.
   (c) Specialized training.
   (d) Physical condition/attitude.
3. Certification process.
   (a) Supervision responsibilities.
   (b) Certifying authority.
   (c) Formal/informal examination.
   (d) Proficiency demonstration.
4. Certification documentation.

b. Specific skills requiring training and proficiency shall include:
   1. Schematic and drawing comprehension.
   2. Test and launch operations.

c. Specific skills requiring certification and proficiency shall include:
   1. Solid propellant inspection *.
   2. Confined space *.
   3. Welding inspection and nondestructive evaluation (NDE).
   4. Program Critical Hardware (PCH) *.
   5. Lifting Equipment Training Certified Examiner.
   6. Propellant and Explosive Handler *.
   7. Risk Management Course Instructors (NASA Headquarters provided training, travel required).

* Training provided by the Government at MSFC.

15.4 **FORMAT**: Contractor format is acceptable.

15.5 **MAINTENANCE**: Changes shall be incorporated by change page or complete reissue.

DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.:** 1107 **ISSUE:** Basic
2. **DRD NO.:** **1107SA-002**
3. **DATA TYPE:** 2
4. **DATE REVISED:**
5. **PAGE:** 1/4
6. **TITLE:** Safety, Health, and Environmental (SHE) Plan
7. **DESCRIPTION/USE:** To provide the contractor and the Government a baseline document for planning, management, control, and implementation of the contractor's industrial/occupational safety, health, and environmental program in accordance with NFS 1852.223-73.
8. **OPR:** AS10/QD50 9. **DM:** QD01
10. **DISTRIBUTION:** Per Contracting Officer's letter
11. **INITIAL SUBMISSION:** Preliminary with proposal
12. **SUBMISSION FREQUENCY:** Ten days after Authority to Proceed (ATP); update as required
13. **REMARKS:**
14. **INTERRELATIONSHIP:** NFS 1852.223-70, *Safety and Health;* NFS 1852.223-73, *Safety and Health Plan;* FAR 52.223-10, *Waste Reduction Program.* DRD 1107SA-003, *Mishap and Safety Statistics Report.* PWS paragraph 2.3.
15. **DATA PREPARATION INFORMATION:**

15.1 **SCOPE:** The Safety, Health, and Environmental Plan describes the contractor's method of implementing occupational safety, health, and environmental standards over the duration of the contract.

15.2 **APPLICABLE DOCUMENTS:** Compliance with the following Occupational Safety and Health Standards and applicable requirements shall be specified in the plan (if applicable to the scope of this contract).

29 CFR 1910	*Department of Labor; Occupational Safety and Health Administration Standards for General Industry*
29 CFR 1926	*Department of Labor; Occupational Safety and Health Administration Standards for Construction Industry*
40 CFR	*Protection of the Environment*

ANSI Standards applicable to the scope of this contract

ASME Boiler and Pressure Vessel Code

MPR 1040.3	*MSFC Emergency Plan*
MPR 1840.3	*MSFC Hazardous Chemicals in Laboratories Protection Program*
MPR 1840.1	*MSFC Confined Space Entries*
MPD 1860.2	*MSFC Radiation Safety Program*
MPR 1810.1	*MSFC Occupational Medicine*
MPD 1840.3	*MSFC Respiratory Protection Program*
MPD 1840.2	*MSFC Hearing Conservation Program*

DRD Continuation Sheet

TITLE: Safety, Health, and Environmental (SHE) Plan **DRD NO.: 1107SA-002**
DATA TYPE: 2 **PAGE:** 2/4

15. **DATA PREPARATION INFORMATION (CONTINUED):**

MPD 1840.1	*MSFC Environmental Health Program*
MPR 1840.2	*MSFC Hazard Communication Program*
MPD 1860.1	*Laser Safety*
MPR 1800.1	*Bloodborne Pathogens*
MWI 3410.1	*Personnel Certification Program*
MPR 8715.1	*Marshall Safety, Health and Environmental (SHE) Program*
MPD 8900.1	*Medical Operations Responsibilities for Human Space Flight Programs* (NOTE: This document only applies to Space Station contracts)
NFPA Standards	*National Fire Codes*
NPR 8715.3	*NASA Safety Manual*
NASA-STD-8719.11	*Safety Standard for Fire Protection*

15.3 CONTENTS: The Safety, Health, and Environmental Plan shall describe the manner in which the contractor implements the requirements of the applicable documents as they pertain to the specific statement of work tasks to be performed and updated when necessary. The Safety, Health and Environmental Plan shall clearly state if the contracted effort contain potentially hazardous or non-hazardous operations and fully address the following applicable topics:

a. Management leadership and employee involvement:
   1. Statement of management policy and commitment to provide for the safety and health of personnel (i.e., employees, customers, and public) and property, and compliance with EPA, OSHA and NASA requirements.
   2. Description of procedures for insuring management and employees are held accountable for implementing their task in a safe and healthful manner through motivational techniques, disciplinary program, or other innovative techniques.
   3. Descriptions of safety, health, environmental awareness and motivation programs that, include documented safety meetings and safety awareness training for employees. (Onsite Safety meeting statistics shall be documented in the Supervisors Safety Web page: http://msfcsma3.msfc.nasa.gov/dbwebs/apps/sswp/SSWP_login.taf)
   4. Method of program evaluation that, identify the methods and frequency for internal evaluation of the safety, health, and environmental program.
   5. Method to ensure the Flowdown of safety responsibilities between all company levels and subcontractors, when applicable.
   6. Identification by title the individual who will be responsible for the implementation of the SHE program elements.
   7. Method to ensure compliance with MPR 8715.1, when work will be performed onsite at MSFC.

b. System and worksite analysis:
   1. Methods of hazard identification, e.g., hazard analysis, safety assessment, change analysis, risk assessment and employee identified concerns.
   2. Descriptions of OSHA programs that require documented programs (e.g., Respiratory Protection, Hazard Communication, Confined Space, and Lockout/Tagout, etc. Include the interrelationships with the MSFC programs.) (Note: Only programs applicable to the contracted effort need to be addressed.)

DRD Continuation Sheet

TITLE: Safety, Health, and Environmental (SHE) Plan **DRD NO.:** 1107SA-002
DATA TYPE: 2 **PAGE:** 3/4

15. **DATA PREPARATION INFORMATION (CONTINUED):**

3. Requirements for formal worksite safety inspections as required by OSHA, to including schedule and documentation requirements. Onsite OSHA inspections are performed by NASA.
4. Requirements for documented supervisors' safety visits. Onsite safety visits shall be performed once per month per supervisor and documented in the Supervisors Safety Web page.

c. Hazard prevention and control:

1. Methods to identify potentially hazardous operations and generate plans, procedures, and other working documents which clearly identify the hazardous situations and the necessary cautions taken to mitigate the hazard; an annual review of the plans and procedures; and, MSFC Safety Department concurrence for onsite hazardous procedures. A list of identified potentially hazardous operations will be provided in the SHE plan.
2. Method of ensuring controls over the procurement, storage, issuance, and use of hazardous substances and procedures for recycling and disposal of hazardous waste in accordance with MPR 8500.1.
3. Method of ensuring a documented emergency management program. Include a list of emergency points of contract. (Note: Onsite contractors may use MPR 1040.3.)
4. Method of investigating all mishaps and close calls to determine root cause, including an outline of reporting requirements. (Reference DRD 1107SA-003, *Mishap and Safety Statistics Report*).
5. Method for providing safety, health, and environmental services applicable to the contracted effort such as hazardous waste disposal, industrial hygiene monitoring, emergency medical support, hearing conservation program, and hazard communication. (These services can be provided by MSFC for onsite work.)
6. Method for employees to suspend work where safety or environmental conditions warrant such action.

d. Safety and health training:

1. Method for training each employee to recognize hazards, avoid accidents, know the hazards specific to their job, and understand the disciplinary program.
2. Method for training and certification of personnel performing potentially hazardous operations. Identify the job categories under the contracted effort that require certification in accordance with MWI 3410.1, "Personnel Certification Program". Personnel Certification for onsite identified job categories shall be tracked in the MSFC Certification Database (CERTRAK) in accordance with MWI 3410.1. (NOTE: offsite contracts shall list the job categories under the contracted effort that require OSHA documented training and certification.)

DRD Continuation Sheet

TITLE: Safety, Health, and Environmental (SHE) Plan **DRD NO.:** 1107SA-002
DATA TYPE: 2 **PAGE:** 4/4

15. **DATA PREPARATION INFORMATION (CONTINUED):**

e. Environmental compliance - Provisions for compliance with environmental laws and regulations by: reporting hazardous and toxic substance use; implementing and reporting green procurements in accordance with MWI 8540.2; reducing, reusing, and recycling of hazardous and toxic substances prior to disposal; minimizing stormwater pollution; ensuring equipment and processes permitted by applicable laws; and disposing of solid and liquid materials as permitted by applicable laws.

15.4 **FORMAT**: Contractor format is acceptable.

15.5 **MAINTENANCE**: Changes shall be incorporated by change page or complete reissue.

DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.**: 1107 **ISSUE**: Basic
2. **DRD NO.**: **1107SA-003**
3. **DATA TYPE**: 3
4. **DATE REVISED**:
5. **PAGE**: 1/2

6. **TITLE**: Mishap and Safety Statistics Reports

7. **DESCRIPTION/USE**: To provide reporting of metrics, mishaps, close calls, and serious non-occupational injuries or illnesses.

8. **OPR**: QD50 9. **DM**: QD01

10. **DISTRIBUTION**: Per Contracting Officer's letter

11. **INITIAL SUBMISSION**:
    a. Safety Statistics (e.g., contract number, subcontractors, NAIC codes, number of employees, number of supervisors, hours worked, etc.): submitted on MSFC Form 4371 by the 10th of each month following Authority to Proceed (ATP).
    b. Mishaps, Close Calls, and serious non-occupational injuries or illnesses
        1. Type A or B mishaps, high visibility mishaps or close calls, and onsite Type C lost time injury or illness: Immediate telephone notification to the Contracting Officer, and Industrial Safety (256-544-0046 or 4-HELP, Safety Option) so that Center Director notifies the NASA Administrator within 24 hours of occurrence or awareness. Include location and time of incident, number of fatalities, number hospitalized, type of damage, estimated cost, brief description, and contact person and phone number.
        2. Non-occupational fatality or serious injury occurring onsite or to an onsite contractor employee: Notification to Contracting Officer and S&MA so that Center Director notifies the NASA Administrator within 24 hour of occurrence or awareness. (Offsite non-occupational injury or illness notification is at the discretion of the family.)
        3. a. All Onsite MSFC mishaps and close calls: (**applicable to onsite contractors only**): NASA Initial Safety Incident Report within 4 hours of occurrence or awareness on MSFC Form 4370 or equivalent either by telephone 256-544-4357 (4-HELP); Safety Option or electronically by Quick Incident. Report at https://msfcsma3.msfc.nasa.gov/s&ma_01/mishap/index.htm.
           b. Offsite Mishaps and Close Calls Type C and below: Initial notification by next MSFC 4371.
        4. All Mishaps (Type A, B, C, Incidents and Close Calls): Mishap Report NASA Form 1627 or electron update of NASA Incident Reporting Information System (IRIS) record within 6 calendar days of Mishap.
        5. Type A, B, and Close Calls with high Type A or B potential: Mishap Board Report after completion of investigation.
        6. All Mishaps: Monthly Follow-up Corrective Action Plan/Status as required until closed.

12. **SUBMISSION FREQUENCY**:
    a. MSFC Form 4370 or electronic equivalent - Each occurrence of a mishap except as identified in section 11.b.
    b. NASA Form 1627 or electronic equivalent - Each occurrence of a mishap. Corrective action status reports are due every 30 days until the final report is submitted.
    c. MSFC Form 4371 - By the 10th of each month.
    d. Mishap Board Report – Each occurrence of a Type A or B mishap, or as directed by Center management.

13. **REMARKS**:
14. **INTERRELATIONSHIP**: DRD 1107SA-002, *Safety, Health, and Environmental (SHE) Plan.* PWS paragraph 2.3

DRD Continuation Sheet

TITLE: Mishap and Safety Statistics Reports **DRD NO.:** 1107SA-003
DATA TYPE: 3 **PAGE:** 2/2

15. **DATA PREPARATION INFORMATION:**

15.1 **SCOPE**: The Mishap and Safety Statistics Reports document all mishaps and close calls as required in NPR 8621.1.

15.2 **APPLICABLE DOCUMENTS**

NPR 8621.1 *NASA Procedural Requirements for Mishap Reporting, Investigating, and Recordkeeping*
MWI 8621.1 *Close Call and Mishap Reporting and Investigation Program*

15.3 **CONTENTS**: The Mishap and Safety Statistics Reports shall contain the information required by NPR 8621.1 and MWI 8621.1. The contractor shall use the forms listed in 15.4 to report mishaps and related information required to produce the safety metrics.

15.4 **FORMAT**: The following formats or electronic equivalent shall be submitted:

a. MSFC Form 4370, "MSFC Flash Mishap Report."
b. NASA Form 1627, "NASA Mishap Report."
c. MSFC Form 4371, "MSFC Contractor Accident and Safety Statistics."
d. Mishap Board Report using the format provided in NPR 8621.1.

15.5 **MAINTENANCE**: None required

REGISTER OF WAGE DETERMINATIONS UNDER THE SERVICE CONTRACT ACT
By direction of the Secretary of Labor

U.S. DEPARTMENT OF LABOR
EMPLOYMENT STANDARDS ADMINISTRATION
WAGE AND HOUR DIVISION
WASHINGTON D.C. 20210

William W.Gross
Director

Division of
Wage Determinations

Wage Determination No.: **2005-2008**
Revision No.: **4**
Date Of Last Revision: **12/06/2006**

States: **Alabama**, Tennessee

Alabama Counties of Colbert, Franklin, Jackson, Lauderdale, Lawrence, Limestone, Madison, Marion, Marshall, Morgan, Winston

Tennessee Counties of Giles, Lawrence, Lincoln, Moore, Wayne

Fringe Benefits Required Follow the Occupational Listing

OCCUPATION CODE - TITLE	MINIMUM WAGE RATE
01000 - Administrative Support And Clerical Occupations	
01011 - Accounting Clerk I	13.47
01012 - Accounting Clerk II	14.65
01013 - Accounting Clerk III	16.77
01020 - Administrative Assistant	21.27
01040 - Court Reporter	17.16
01051 - Data Entry Operator I	10.78
01052 - Data Entry Operator II	12.84
01060 - Dispatcher, Motor Vehicle	16.31
01070 - Document Preparation Clerk	12.47
01090 - Duplicating Machine Operator	12.47
01111 - General Clerk I	10.25
01112 - General Clerk II	11.18
01113 - General Clerk III	13.15
01120 - Housing Referral Assistant	17.51
01141 - Messenger Courier	8.95
01191 - Order Clerk I	11.24
01192 - Order Clerk II	15.27
01261 - Personnel Assistant (Employment) I	13.50
01262 - Personnel Assistant (Employment) II	15.08
01263 - Personnel Assistant (Employment) III	16.33
01270 - Production Control Clerk	18.39
01280 - Receptionist	11.02
01290 - Rental Clerk	11.79
01300 - Scheduler, Maintenance	15.32
01311 - Secretary I	15.32
01312 - Secretary II	17.16
01313 - Secretary III	19.14
01320 - Service Order Dispatcher	13.83
01410 - Supply Technician	21.27
01420 - Survey Worker	16.43
01531 - Travel Clerk I	9.71
01532 - Travel Clerk II	10.28
01533 - Travel Clerk III	10.96
01611 - Word Processor I	12.34
01612 - Word Processor II	13.77
01613 - Word Processor III	16.31

05000 - Automotive Service Occupations	
05005 - Automobile Body Repairer, Fiberglass	17.50
05010 - Automotive Electrician	16.73
05040 - Automotive Glass Installer	15.94
05070 - Automotive Worker	15.94
05110 - Mobile Equipment Servicer	14.45
05130 - Motor Equipment Metal Mechanic	17.50
05160 - Motor Equipment Metal Worker	15.94
05190 - Motor Vehicle Mechanic	15.98
05220 - Motor Vehicle Mechanic Helper	12.52
05250 - Motor Vehicle Upholstery Worker	15.22
05280 - Motor Vehicle Wrecker	15.94
05310 - Painter, Automotive	15.28
05340 - Radiator Repair Specialist	15.94
05370 - Tire Repairer	12.75
05400 - Transmission Repair Specialist	17.50
07000 - Food Preparation And Service Occupations	
07010 - Baker	10.84
07041 - Cook I	9.14
07042 - Cook II	10.27
07070 - Dishwasher	7.57
07130 - Food Service Worker	8.09
07210 - Meat Cutter	13.32
07260 - Waiter/Waitress	6.82
09000 - Furniture Maintenance And Repair Occupations	
09010 - Electrostatic Spray Painter	17.56
09040 - Furniture Handler	13.94
09080 - Furniture Refinisher	17.56
09090 - Furniture Refinisher Helper	14.41
09110 - Furniture Repairer, Minor	15.98
09130 - Upholsterer	17.56
11000 - General Services And Support Occupations	
11030 - Cleaner, Vehicles	8.16
11060 - Elevator Operator	8.06
11090 - Gardener	12.11
11122 - Housekeeping Aide	8.62
11150 - Janitor	8.06
11210 - Laborer, Grounds Maintenance	10.00
11240 - Maid or Houseman	7.29
11260 - Pruner	8.72
11270 - Tractor Operator	12.08
11330 - Trail Maintenance Worker	10.00
11360 - Window Cleaner	8.24
12000 - Health Occupations	
12010 - Ambulance Driver	14.33
12011 - Breath Alcohol Technician	13.57
12012 - Certified Occupational Therapist Assistant	18.49
12015 - Certified Physical Therapist Assistant	18.49
12020 - Dental Assistant	13.91
12025 - Dental Hygienist	18.58
12030 - EKG Technician	20.57
12035 - Electroneurodiagnostic Technologist	20.57
12040 - Emergency Medical Technician	14.33
12071 - Licensed Practical Nurse I	12.46
12072 - Licensed Practical Nurse II	14.00

12073 - Licensed Practical Nurse III	15.68
12100 - Medical Assistant	10.79
12130 - Medical Laboratory Technician	14.02
12160 - Medical Record Clerk	11.28
12190 - Medical Record Technician	13.60
12195 - Medical Transcriptionist	12.40
12210 - Nuclear Medicine Technologist	29.83
12221 - Nursing Assistant I	8.77
12222 - Nursing Assistant II	9.87
12223 - Nursing Assistant III	10.76
12224 - Nursing Assistant IV	12.08
12235 - Optical Dispenser	13.68
12236 - Optical Technician	10.14
12250 - Pharmacy Technician	12.24
12280 - Phlebotomist	12.08
12305 - Radiologic Technologist	20.57
12311 - Registered Nurse I	19.83
12312 - Registered Nurse II	24.27
12313 - Registered Nurse II, Specialist	24.27
12314 - Registered Nurse III	29.36
12315 - Registered Nurse III, Anesthetist	29.36
12316 - Registered Nurse IV	35.18
12317 - Scheduler (Drug and Alcohol Testing)	16.82
13000 - Information And Arts Occupations	
13011 - Exhibits Specialist I	17.77
13012 - Exhibits Specialist II	21.76
13013 - Exhibits Specialist III	26.45
13041 - Illustrator I	17.77
13042 - Illustrator II	21.76
13043 - Illustrator III	26.45
13047 - Librarian	22.08
13050 - Library Aide/Clerk	12.82
13054 - Library Information Technology Systems Administrator	21.15
13058 - Library Technician	14.67
13061 - Media Specialist I	14.37
13062 - Media Specialist II	16.07
13063 - Media Specialist III	17.92
13071 - Photographer I	13.58
13072 - Photographer II	15.68
13073 - Photographer III	18.78
13074 - Photographer IV	22.96
13075 - Photographer V	27.87
13110 - Video Teleconference Technician	14.39
14000 - Information Technology Occupations	
14041 - Computer Operator I	13.39
14042 - Computer Operator II	17.39
14043 - Computer Operator III	18.63
14044 - Computer Operator IV	23.78
14045 - Computer Operator V	26.73
14071 - Computer Programmer I (1)	20.66
14072 - Computer Programmer II (1)	24.76
14073 - Computer Programmer III (1)	27.62
14074 - Computer Programmer IV (1)	27.62
14101 - Computer Systems Analyst I (1)	27.62
14102 - Computer Systems Analyst II (1)	27.62
14103 - Computer Systems Analyst III (1)	27.62
14150 - Peripheral Equipment Operator	13.39
14160 - Personal Computer Support Technician	23.78

15000 - Instructional Occupations	
15010 - Aircrew Training Devices Instructor (Non-Rated)	26.68
15020 - Aircrew Training Devices Instructor (Rated)	32.29
15030 - Air Crew Training Devices Instructor (Pilot)	33.42
15050 - Computer Based Training Specialist / Instructor	30.38
15060 - Educational Technologist	24.89
15070 - Flight Instructor (Pilot)	33.42
15080 - Graphic Artist	19.60
15090 - Technical Instructor	16.29
15095 - Technical Instructor/Course Developer	20.67
15110 - Test Proctor	17.16
15120 - Tutor	17.16
16000 - Laundry, Dry-Cleaning, Pressing And Related Occupations	
16010 - Assembler	7.37
16030 - Counter Attendant	7.37
16040 - Dry Cleaner	9.26
16070 - Finisher, Flatwork, Machine	7.37
16090 - Presser, Hand	7.37
16110 - Presser, Machine, Drycleaning	7.37
16130 - Presser, Machine, Shirts	7.37
16160 - Presser, Machine, Wearing Apparel, Laundry	7.51
16190 - Sewing Machine Operator	9.78
16220 - Tailor	10.23
16250 - Washer, Machine	7.99
19000 - Machine Tool Operation And Repair Occupations	
19010 - Machine-Tool Operator (Tool Room)	20.38
19040 - Tool And Die Maker	24.86
21000 - Materials Handling And Packing Occupations	
21020 - Forklift Operator	14.82
21030 - Material Coordinator	18.39
21040 - Material Expediter	18.39
21050 - Material Handling Laborer	10.29
21071 - Order Filler	10.87
21080 - Production Line Worker (Food Processing)	14.00
21110 - Shipping Packer	12.98
21130 - Shipping/Receiving Clerk	12.98
21140 - Store Worker I	10.50
21150 - Stock Clerk	14.24
21210 - Tools And Parts Attendant	14.82
21410 - Warehouse Specialist	14.82
23000 - Mechanics And Maintenance And Repair Occupations	
23010 - Aerospace Structural Welder	17.04
23021 - Aircraft Mechanic I	22.24
23022 - Aircraft Mechanic II	17.04
23023 - Aircraft Mechanic III	17.71
23040 - Aircraft Mechanic Helper	17.44
23050 - Aircraft, Painter	19.32
23060 - Aircraft Servicer	19.34
23080 - Aircraft Worker	20.27
23110 - Appliance Mechanic	18.04
23120 - Bicycle Repairer	14.66
23125 - Cable Splicer	19.76
23130 - Carpenter, Maintenance	17.56
23140 - Carpet Layer	17.29
23160 - Electrician, Maintenance	23.21

23181 - Electronics Technician Maintenance I	16.30
23182 - Electronics Technician Maintenance II	25.55
23183 - Electronics Technician Maintenance III	26.62
23260 - Fabric Worker	16.54
23290 - Fire Alarm System Mechanic	18.79
23310 - Fire Extinguisher Repairer	15.72
23311 - Fuel Distribution System Mechanic	18.79
23312 - Fuel Distribution System Operator	16.80
23370 - General Maintenance Worker	16.43
23380 - Ground Support Equipment Mechanic	22.24
23381 - Ground Support Equipment Servicer	19.34
23382 - Ground Support Equipment Worker	20.27
23391 - Gunsmith I	13.46
23392 - Gunsmith II	14.84
23393 - Gunsmith III	16.27
23410 - Heating, Ventilation & Air-Conditioning Mechanic	18.38
23411 - Heating, Ventilation & Air Conditioning Mechanic (R&D Facility)	19.30
23430 - Heavy Equipment Mechanic	18.38
23440 - Heavy Equipment Operator	17.87
23460 - Instrument Mechanic	20.67
23465 - Laboratory/Shelter Mechanic	15.56
23470 - Laborer	10.33
23510 - Locksmith	18.04
23530 - Machinery Maintenance Mechanic	23.32
23550 - Machinist, Maintenance	16.92
23580 - Maintenance Trades Helper	14.41
23591 - Metrology Technician I	20.67
23592 - Metrology Technician II	21.55
23593 - Metrology Technician III	22.41
23640 - Millwright	18.79
23710 - Office Appliance Repairer	18.09
23760 - Painter, Maintenance	17.56
23790 - Pipefitter, Maintenance	18.90
23810 - Plumber, Maintenance	18.06
23820 - Pneudraulic Systems Mechanic	18.79
23850 - Rigger	18.79
23870 - Scale Mechanic	17.29
23890 - Sheet-Metal Worker, Maintenance	18.38
23910 - Small Engine Mechanic	16.75
23931 - Telecommunications Mechanic I	18.38
23932 - Telecommunications Mechanic II	20.21
23950 - Telephone Lineman	18.38
23960 - Welder, Combination, Maintenance	18.38
23965 - Well Driller	18.79
23970 - Woodcraft Worker	18.79
23980 - Woodworker	16.43
24000 - Personal Needs Occupations	
24570 - Child Care Attendant	7.78
24580 - Child Care Center Clerk	9.71
24610 - Chore Aide	7.65
24620 - Family Readiness And Support Services Coordinator	11.71
24630 - Homemaker	12.32
25000 - Plant And System Operations Occupations	
25010 - Boiler Tender	18.86
25040 - Sewage Plant Operator	17.87
25070 - Stationary Engineer	18.86
25190 - Ventilation Equipment Tender	14.85
25210 - Water Treatment Plant Operator	17.56

27000 - Protective Service Occupations	
27004 - Alarm Monitor	11.88
27007 - Baggage Inspector	9.95
27008 - Corrections Officer	14.36
27010 - Court Security Officer	15.75
27030 - Detection Dog Handler	12.55
27040 - Detention Officer	14.36
27070 - Firefighter	15.75
27101 - Guard I	9.95
27102 - Guard II	12.55
27131 - Police Officer I	17.14
27132 - Police Officer II	19.05
28000 - Recreation Occupations	
28041 - Carnival Equipment Operator	8.93
28042 - Carnival Equipment Repairer	9.38
28043 - Carnival Equpment Worker	7.40
28210 - Gate Attendant/Gate Tender	12.23
28310 - Lifeguard	10.90
28350 - Park Attendant (Aide)	13.68
28510 - Recreation Aide/Health Facility Attendant	9.99
28515 - Recreation Specialist	12.25
28630 - Sports Official	10.90
28690 - Swimming Pool Operator	14.23
29000 - Stevedoring/Longshoremen Occupational Services	
29010 - Blocker And Bracer	17.70
29020 - Hatch Tender	17.70
29030 - Line Handler	17.70
29041 - Stevedore I	16.90
29042 - Stevedore II	18.56
30000 - Technical Occupations	
30010 - Air Traffic Control Specialist, Center (HFO) (2)	33.27
30011 - Air Traffic Control Specialist, Station (HFO) (2)	22.94
30012 - Air Traffic Control Specialist, Terminal (HFO) (2)	25.27
30021 - Archeological Technician I	15.69
30022 - Archeological Technician II	17.56
30023 - Archeological Technician III	21.76
30030 - Cartographic Technician	23.09
30040 - Civil Engineering Technician	20.75
30061 - Drafter/CAD Operator I	15.69
30062 - Drafter/CAD Operator II	17.77
30063 - Drafter/CAD Operator III	18.64
30064 - Drafter/CAD Operator IV	22.94
30081 - Engineering Technician I	12.79
30082 - Engineering Technician II	15.89
30083 - Engineering Technician III	19.09
30084 - Engineering Technician IV	26.34
30085 - Engineering Technician V	30.74
30086 - Engineering Technician VI	37.17
30090 - Environmental Technician	20.17
30210 - Laboratory Technician	18.37
30240 - Mathematical Technician	23.77
30361 - Paralegal/Legal Assistant I	14.87
30362 - Paralegal/Legal Assistant II	18.43
30363 - Paralegal/Legal Assistant III	22.54
30364 - Paralegal/Legal Assistant IV	27.28
30390 - Photo-Optics Technician	22.75

30461 - Technical Writer I	18.73
30462 - Technical Writer II	22.91
30463 - Technical Writer III	25.38
30491 - Unexploded Ordnance (UXO) Technician I	20.73
30492 - Unexploded Ordnance (UXO) Technician II	25.09
30493 - Unexploded Ordnance (UXO) Technician III	30.07
30494 - Unexploded (UXO) Safety Escort	20.73
30495 - Unexploded (UXO) Sweep Personnel	20.73
30620 - Weather Observer, Combined Upper Air Or Surface Programs (3)	18.39
30621 - Weather Observer, Senior (3)	18.79
31000 - Transportation/Mobile Equipment Operation Occupations	
31020 - Bus Aide	9.74
31030 - Bus Driver	12.67
31043 - Driver Courier	12.36
31260 - Parking and Lot Attendant	8.86
31290 - Shuttle Bus Driver	13.11
31310 - Taxi Driver	9.91
31361 - Truckdriver, Light	13.11
31362 - Truckdriver, Medium	16.16
31363 - Truckdriver, Heavy	16.83
31364 - Truckdriver, Tractor-Trailer	16.83
99000 - Miscellaneous Occupations	
99030 - Cashier	8.82
99050 - Desk Clerk	6.90
99095 - Embalmer	20.73
99251 - Laboratory Animal Caretaker I	8.23
99252 - Laboratory Animal Caretaker II	13.46
99310 - Mortician	20.73
99410 - Pest Controller	12.10
99510 - Photofinishing Worker	10.58
99710 - Recycling Laborer	12.99
99711 - Recycling Specialist	13.44
99730 - Refuse Collector	11.23
99810 - Sales Clerk	10.45
99820 - School Crossing Guard	10.42
99830 - Survey Party Chief	14.67
99831 - Surveying Aide	9.04
99832 - Surveying Technician	12.37
99840 - Vending Machine Attendant	12.42
99841 - Vending Machine Repairer	14.23
99842 - Vending Machine Repairer Helper	12.42

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 $3.01 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 10 years, and 4 after 20 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 PARENTHESES AFTER THEM RECEIVE THE FOLLOWING BENEFITS (as numbered):

1) Does not apply to employees employed in a bona fide executive, administrative, or professional capacity as defined and delineated in 29 CFR 541. (See CFR 4.156)

2) **APPLICABLE TO AIR TRAFFIC CONTROLLERS ONLY - NIGHT DIFFERENTIAL:** An employee is entitled to pay for all work performed between the hours of 6:00 P.M. and 6:00 A.M. at the rate of basic pay plus a night pay differential amounting to 10 percent of the rate of basic pay.

3) **WEATHER OBSERVERS - NIGHT PAY & SUNDAY PAY:** If you work at night as part of a regular tour of duty, you will earn a night differential and receive an additional 10% of basic pay for any hours worked between 6pm and 6am. If you are a full-time employed (40 hours a week) and Sunday is part of your regularly scheduled workweek, you are paid at your rate of basic pay plus a Sunday premium of 25% of your basic rate for each hour of Sunday work which is not overtime (i.e. occasional work on Sunday outside the normal tour of duty is considered overtime work).

**** HAZARDOUS PAY DIFFERENTIAL ****

An 8 percent differential is applicable to employees employed in a position that represents a high degree of hazard when working with or in close proximity to ordinance, explosives, and incendiary materials. This includes work such as screening, blending, dying, mixing, and pressing of sensitive ordance, 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 ordance, (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 ordance, explosive, and incendiary ordnance material other than small arms ammunition.

NOTE: 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.

Attachment J-4

S&MA Tools/Databases/Software Packages Referred to in the PWS			
PWS Paragraph	**Tools/Database/ Software/etc.**	**Content/Purpose**	**Skill Required to use**
2.7	Automated Task Order Management System (ATOMS)	The Contractor shall develop or provide software tools and techniques, as necessary, to facilitate the accomplishment of PWS 2.7 (ATOMS).	Contractor shall supply assessment of skills/requirements for software tool use.
3.1	Fault Tree Analysis	A graphical model of the pathways within a system that can lead to an undesired loss event.	Knowledge of FTA theory. Experience with software tools (eg. CAFTA) that are used for FT development and Analysis.
	Logic Trees	Explores system responses to initiating challenges and enables probability assessment of success or failure, or outcomes and consequence.	Knowledge of Event Tree, and Cause-Consequence Analysis theory. Experience in preparing logic trees that use Event Tree, and Cause-Consequence Analysis methods including the use of any software tools.
	Hazard Analysis	Identify safety hazards on a subsystem or system. Assess identified hazards for methods of elimination or decreasing the probability of occurrence.	Experience in developing Hazard Analysis and the required safety supporting data on complex aerospace systems and ground support equipment.
	Data Search and Trending	Search lessons learned or mishap reporting databases for potential reoccurring safety problems or adverse trends.	Experience in the evaluation of databases to determine if any reoccurring safety problems exist.

S&MA Tools/Databases/Software Packages Referred to in the PWS			
PWS Paragraph	**Tools/Database/ Software/etc.**	**Content/Purpose**	**Skill Required to use**
4.13	Electronic Databases:		
4.13.1	CERTRAK	Certification tracking for personnel performing hazardous operations	Knowledge/experience of software and processes/procedures
4.13.2	SCRS	Safety Concerns Reporting System	Knowledge/experience of software and processes/procedures
4.13.3	SHETrak	Safety, Health and Environmental tracking for facility inspection findings	Knowledge/experience of software and processes/procedures
4.13.4	Safety Search	Database providing ability to search SHE related items	Knowledge/experience of software and processes/procedures
4.13.5	Mishap Reporting	Track mishap cases and produce metric reports.	Report mishaps and close calls as required and support metrics production and analysis.
4.13.5	Safety Inspections	Assure compliance with safety procedures, including hazardous operations, and resolution of problems.	Inspection certification and familiarity with governing procedures and MSFC processes.
4.13.6	Safety Bulletins	Broadcast Center safety bulletins.	Experience in converting WORD documents to "pdf" format then posting these files to a web page.
4.13.7	Hazard Analysis	Systematically analyze	Experience in developing Hazard

S&MA Tools/Databases/Software Packages Referred to in the PWS			
PWS Paragraph	**Tools/Database/ Software/etc.**	**Content/Purpose**	**Skill Required to use**
		facility and test systems for hazards.	Analysis and the required safety supporting data on aerospace ground support equipment and facilities.
4.13.8	Building Managers List	Provide quick access to building and responsible personnel information.	Knowledge of building manager process.
4.13.9	ORI Tracking System	Track action items from independent safety teams.	Knowledge of ORI process.
4.13.10	Certified Lifting Equipment for PCH	Database listing current PCH certified lifting equipment	Knowledge/experience of software and processes/procedures
4.13.11	SSWP	Supervisor Safety Web Page	Knowledge/experience of software and processes/procedures
4.13.12	Contractor Database	Database listing current MSFC contractors	Knowledge/experience of software and processes/procedures
4.13.13	RiskSafe	Software used to assist in conducting Hazard Analysis	Knowledge/experience of software and processes/procedures
4.13.14	IHOPS	Inventory of Hazardous Operations	Knowledge/experience of software and processes/procedures
4.13.15	Design Reviews	tracking design review comments	Knowledge/experience of software and processes/procedures
	All other software systems		

S&MA Tools/Databases/Software Packages Referred to in the PWS			
PWS Paragraph	**Tools/Database/ Software/etc.**	**Content/Purpose**	**Skill Required to use**
4.13.16	needed to track and analyze Industrial Safety Information:		
	Incident Reporting Information System	Manage mishap resolution and metrics	Familiarity with IRIS and associated processes.
	Dr. Know	Answer questions about SHE issues	Knowledge/experience of software and processes/procedures.
	It Could Happen To You	Database with stories of close calls and incidents that Marshall employees have experienced; lessons learned included.	Knowledge/experience of software and processes/procedures.
	Inventory of Hazardous Operations (IHOPs)	Keep updated inventory of hazops and associated requirements	Knowledge/experience of software and processes/procedures.
	Contractor Safety	Track contract safety compliance metrics	Knowledge/experience of software and processes/procedures.
	Mascots	Provide Mascot information and allow for volunteers	Knowledge/experience of software and processes/procedures.
	Personnel Mishaps and Close Calls	Notify personnel of mishap information	Knowledge/experience of software and processes/procedures.
	SHE Improvements	Educate MSFC of SHE	

S&MA Tools/Databases/Software Packages Referred to in the PWS			
PWS Paragraph	**Tools/Database/ Software/etc.**	**Content/Purpose**	**Skill Required to use**
		program Benefits	Knowledge/experience of software and processes/procedures.
	Slogan	Personnel suggest Safety Slogans	Knowledge/experience of software and processes/procedures.
	Voluntary Protection Program (VPP) site	Inform personnel of VPP program	Knowledge/experience of software and processes/procedures.
	Audited Vendor Listing/ Limited Vendor Listing Project-Specific Approved Supplier Listing Application/Prime Contractor Audit Database	Used to track the status of Vendors, Suppliers and Contractors products for MSFC hardware development	Knowledge/experience of software and processes/procedures.
	STAMPS	Maintains Stamp inventory through assignments and turn ins of stamps to personnel	Knowledge/experience of software and processes/procedures.
	Building Database	Manage MSFC building information and associated SHE data, such as building managers	Knowledge/experience of software and processes/procedures.
	Safety Bulletins	Provide bulletin information for personnel	Knowledge/experience of software and processes/procedures.

S&MA Tools/Databases/Software Packages Referred to in the PWS			
PWS Paragraph	**Tools/Database/ Software/etc.**	**Content/Purpose**	**Skill Required to use**
	Crane Database	Track crane hazard analysis and certification information.	Familiarity with inspection, hazard analysis and corrective action process.
	Checklist	Generate checklists for use in determining safety requirements and compliance	Knowledge of governing requirements and implementation methodologies.
	SHETRAK/SCRS	Tracking of inspection findings and employee concerns	Knowledge of inspection and corrective action process and SHEtrak/SCRS program.
	SHE Training Catalog (STC)	Allow SHE Team to maintain training catalog and associated information and provide supervisors an interface for determining employee's training requirements	Knowledge of MSFC SHE training requirements and implementing processes.
	Supervisor Safety Webpage (SSWP)	Tracks personnel attendance to required monthly safety meetings and reports metrics. Also used to track findings during safety visits	Knowledge of SHE program requirements for supervisors.
5.1.10	Quantitative and Qualitative Modeling/Simulation Software	The contractor shall develop and employ quantitative and qualitative models and simulations to support the design,	Contractor shall supply assessment of skills/requirements for software tool use.

S&MA Tools/Databases/Software Packages Referred to in the PWS			
PWS Paragraph	**Tools/Database/ Software/etc.**	**Content/Purpose**	**Skill Required to use**
		development and testing of MSFC managed spaceflight hardware and software as well as sustaining engineering of this hardware and software. The contractor shall perform analyses to ascertain/verify the technical validity of models and simulations	
5.4.1	Acute Launch Emergency Restraint Tips (ALERTS) Database	The ALERTS Database is used to report, review, or track any impacts to Government hardware (flight, non-flight, and test), office furniture, computers, or other equipment and supplies.	Experience with processing of GIDEP ALERTS and SAFE ALERTS. Experience in web based application development and database maintenance
5.6	PRACA Database	Track Shuttle and MSFC Payload Project Reportable Problems	Experience with corrective action systems and process. Experience in web based application development and database maintenance
6.1.6	As-Built Configuration Status System	To track as-built configuration of hardware built at MSFC	Knowledge of Work Orders, Deviations/Waivers, Discrepancy Records, Documentation of As-built Configuration on Marshall Form 312 and TANGO/MS ACCESS databases.
6.2.1	Procurement Discrepancy Tracking System (PDTS)	MSFC Procurement's system for tracking discrepant purchased items. S&MA inputs Inspection & Acceptance Reports (Ihara's)	General computer knowledge & PDTS tutorial.

S&MA Tools/Databases/Software Packages Referred to in the PWS			
PWS Paragraph	**Tools/Database/ Software/etc.**	**Content/Purpose**	**Skill Required to use**
6.2.7	Audit Tracking Information System (ATIS)	Automates all aspects of audit process.	Knowledge of audit processes and ATIS database.
	Audited Vendor Listing/ Limited Vendor Listing Project-Specific Approved Supplier Listing Application/Prime Contractor Audit Database	Used to track the status of Vendors, Suppliers and Contractors products for MSFC hardware development	Knowledge of supplier, vendor and contractor evaluation processes and requirements.
	Nonconformance Reporting System (NCR)	Track non-conformances resulting from audits	Knowledge of audit, nonconformance and corrective action processes.
6.3.3	ISO 9001 Corrective Action System (CAS)	Track ISO 9001 Hardware, customer, and internal system problems	Experience with corrective action systems and process.
	ISO 9001 Quality System Deficiency Notices (QSDN)	Process ISO 9001 internal system problems	Experience with corrective action systems and process.
	ISO 9001 Quality Comment System (QUALCOMM)	Process ISO 9001 customer problems	Experience with corrective action systems and process.
6.5	Software Configuration Management	Versioning and configuration management for web applications.	Knowledge of MS Visual Source Safe and NASA Configuration Management policies and procedures.

S&MA Tools/Databases/Software Packages Referred to in the PWS			
PWS Paragraph	**Tools/Database/ Software/etc.**	**Content/Purpose**	**Skill Required to use**
7.1	Management Action Reporting System (MARS)	Integrated tracking of S&MA actions	Web-based development knowledge and familiarity with SMS, Strategic Plan, MSR CAITS, and AOA processes.
	Acute Launch Emergency Restraint Tips (ALERTS) Database	The ALERT Database is used to report, review, or track any impacts to Government hardware (flight, non-flight, and test), office furniture, computers, or other equipment and supplies.	Experience with web-based programming and familiarity with ALERTS process.
	As-Built Configuration Status System (ABCSS)	To track as-built configuration of hardware built at MSFC	Experience in web-based application development and familiarity with MSFC configuration mgt processes.
	ISO 9001 Nonconformance Database (NCR)	Track ISO 9001 Internal Audit Non-conformances	Experience with web-based programming and interface with audit process.
	Problem Reporting and Corrective Action (UPRACA)	Track Shuttle and MSFC Payload Project Reportable Problems	Experience with web-based programming and familiarity with PRACA process
	MSFC Hazardous Operations Personnel Certification (CERTRAK)	Track personnel certification records and automatically notify prior to certification expiration date.	Experience in web based application development and database maintenance and familiarity with associated processes.
	Integrated Safety Data	Search safety databases	Familiarity with associated

S&MA Tools/Databases/Software Packages Referred to in the PWS			
PWS Paragraph	**Tools/Database/ Software/etc.**	**Content/Purpose**	**Skill Required to use**
	(ISD) (known as Safety Search)	for user specified information.	processes and experience in web-based programming.
	Safety Concerns Reporting System (SCRS)	Track employee safety concerns and associated actions.	Experience in web based application development and database maintenance
	Defense Contracts Administration Reimbursable System (DCARRS)	Contains DCMS reimbursable hour data and is used to track DCMC expenditures against forecast.	Ability to extract and translate DCARRS MOST reports and knowledge of DCMA reporting procedures
	Independent Assessment Database (IADB)	Tracks items (including issues and concerns) in relation to Space Shuttle Flights.	Experience in web based application development and database maintenance.
	Customer Survey	Database to record feedback for organizations from their customer base.	Experience in web based application development and database maintenance.
	Information Management Support Requests	System for managing requests for IM support and application change requests	Experience in web based application development and database maintenance.
	The Portal System (TPS)	System for controlling accounts and access to S&MA applications and assures IT Security Policies per NPR 2810	Knowledge of NASA IT Security Standards and procedures. Experience in web-based application development and database maintenance.
	Space Flight Awareness	System for reporting and tracking Space	Experience in web based application

S&MA Tools/Databases/Software Packages Referred to in the PWS			
PWS Paragraph	**Tools/Database/ Software/etc.**	**Content/Purpose**	**Skill Required to use**
	Webpage	Flight Awareness Awards for MSFC	development and database maintenance.
	MSFC Safety and Mission Assurance Webpage	Webpage for reporting S&MA information	Experience in web based application development and database maintenance.
	Section 508 Market Analyses and Testing	Programming web applications and assuring sw and hw procurements in accordance with Section 508 regulations	Knowledge of NASA software procurement procedures, Section 508 regulation, and NASA web standards and use of compliance tool.
	Information Management Support Requests (IMSR)	Manage requests for support	Web-based programming and work management knowledge,
	Incident Reporting Information System	Manage mishap resolution and metrics	System administration and interface programming knowledge. Familiarity with IRIS and associated processes.
	Dr. Know	Answer questions about SHE issues	Experience in web-based programming
	It Could Happen To You	Database with stories of close calls and incidents that Marshall employees have experienced; lessons learned included.	Experience in web-based programming.
	Inventory of Hazardous Operations (IHOPs)	Keep updated inventory of hazops and associated requirements	Experience in web-based programming and familiarity with governing processes and procedures as well as interfaces with other

S&MA Tools/Databases/Software Packages Referred to in the PWS			
PWS Paragraph	**Tools/Database/ Software/etc.**	**Content/Purpose**	**Skill Required to use**
			applications.
	Contractor Safety	Track contract safety compliance metrics	Experience in stand-alone database development and familiarity with associated processes.
	Mascots	Provide Mascot information and allow for volunteers	Experience in web-based programming.
	Personnel Mishaps and Close Calls	Notify personnel of mishap information	Experience with web-based programming and knowledge of interface with other applications.
	SHE Improvements	Educate MSFC of SHE program Benefits	Experience in web-based programming.
	Slogan	Personnel suggest Safety Slogans	Experience in web based application development.
	Voluntary Protection Program (VPP) site	Inform personnel of VPP program	Web site development knowledge and experience.
	Audited Vendor Listing/ Limited Vendor Listing Project-Specific Approved Supplier Listing Application/Prime Contractor Audit Database	Used to track the status of Vendors, Suppliers and Contractors products for MSFC hardware development	Familiarity with web-based programming and evaluation process.
	STAMPS	Maintains Stamp inventory through assignments and turn ins of stamps to personnel	Experience in MS Access/VB application Development and Database maintenance

S&MA Tools/Databases/Software Packages Referred to in the PWS			
PWS Paragraph	**Tools/Database/ Software/etc.**	**Content/Purpose**	**Skill Required to use**
	Building Database	Manage MSFC building information and associated SHE data, such as building managers	Experience in web-based programming and knowledge of associated MSFC processes including interfaces with other applications.
	Safety Bulletins	Provide bulletin information for personnel	Web-based programming knowledge
	Crane Database	Tracks crane hazard analysis and certification data	Shared database programming knowledge.
	Checklist	Application that generates checklists for multiple uses	Web-based programming knowledge and knowledge of interfaces.
7.6	Security Plan Template via IT Security Center (ITSC)	Standardized conduct and reporting of IT Security plan	Knowledge of IT security requirements, including risk assessment, mitigation, certification and accreditation
9.0	Independent Assessment	Tracks items (including issues and concerns) in relation to Space Shuttle Flights.	Knowledge of Project/Program operations and familiarity with assessment methodology.
10.0	Risk Definition and Mitigation Analyses	The Contractor shall develop or provide software tools and techniques, as necessary, to facilitate the identification/tracking/ mitigation of risks and issues that may	Contractor shall supply assessment of skills/requirements for software tool use.

S&MA Tools/Databases/Software Packages Referred to in the PWS			
PWS Paragraph	**Tools/Database/ Software/etc.**	**Content/Purpose**	**Skill Required to use**
		potentially negatively impact an in-house or contracted project or program.	

CONTRACT NNM07AA74C

ATTACHMENT J-5

MAKE OR BUY PLAN

Item or Services	Provide	Subcontract	Subcontractor (Source/Address)
See attached			

Note: See NASA FAR clause 1852.215-78

ATTACHMENT J-6

A COMPLETE GOVERNMENT MAPPING OF ALL LABOR CATEGORY POSITION DESCRIPTIONS REQUIRED/ANTICIPATED TO PERFORM ALL WBS/PWS ELEMENTS OF THE S&MA SERVICES CONTRACT

Descriptions for the labor categories identified in Attachment J-9 are provided below. SRM&QA Professional and Engineer labor descriptions have been combined for this RFP. Further information on the Engineer and SRM&QA Professional categories can be found on the internet at http://bls.gov/ncs/ocs/ocsjobde.htm. Further information on the Safety/Quality Assurance Specialist, Computer Analyst, Business Analyst, Secretary/ Management Assistant and Secretary/Data Clerk job categories can be found at the Service Contract Act Directory of Occupations: http://www.dol.gov/esa/regs/compliance/whd/wage/main.htm.

NASA/MSFC S&MA Services Contract Labor Categories

Engineer/SRM&QA Professional - (E/P-8) Program/Technical Manager II
Engineer/SRM&QA Professional - (E/P-7) Technical Expert (TE)*
Engineer/SRM&QA Professional - (E/P-6) Program/Technical Manager I
Engineer/SRM&QA Professional - (E/P-5) Functional Manager/Supervisor
Engineer/SRM&QA Professional - (E/P-4) Senior Engineer
Engineer/SRM&QA Professional - (E/P-3) Journeyman Engineer II
Engineer/SRM&QA Professional - (E/P-2) Journeyman Engineer I
Engineer/SRM&QA Professional - (E/P-1) Junior Engineer

Senior Safety Specialist -(SS-3)
Safety Specialist ---------(SS-2)
Junior Safety Specialist--(SS-1)
Senior Quality Assurance Specialist--(QAS-3)
Quality Assurance Specialist ----------(QAS-2)
Junior Quality Assurance Specialist---(QAS-1)

Supervisory Computer Applications Programmer/Analyst-(CAP/A-4)
Senior Computer Applications Programmer/Analyst------- (CAP/A-3)
Computer Applications Programmer/Analyst----------(CAP/A-2)
Junior Computer Applications Programmer/Analyst--------(CAP/A-1)

Supervisory Business Manager/Analyst-(BM/A-4)
Senior Business Manager/Analyst-------(BM/A-3)
Business Manager/Analyst---------- (BM/A-2)
Junior Business Manager/Analyst--------(BM/A-1)

Secretary/Management Assistant- (S/MA-3) [Travel]
Secretary/Management Assistant- (S/MA-2) [Human Resources]

Secretary/Data Clerk -(SDC-2) [Senior Data Entry]
Secretary/Data Clerk -(SDC-1) [Data Entry]

* Technical Expert (TE)/Subject Matter Expert (SME) categories (defined below) with labor rates shall be proposed by the Offeror for this Solicitation; however, actual TE/SME labor/rate categories shall be negotiated and approved by the Contracting Officer on an individual basis, as required during the entire period of performance for this contract [See Engineer/SRM&QA Professional (E/P-7).]

NASA/MSFC S&MA Services Contract Labor Category Position Descriptions:

Engineer/SRM&QA Professional/Manager (E/P-8) The E/P-8 classification refers to an Engineer/ SRM&QA Professional/Manager that is in charge of programs/projects large and complex enough to require staffing and resources of significant magnitude with the ability to directly support comprehensive SRM&QA engineering and surveillance activities for design, development, manufacturing and sustaining engineering for a wide variety of in-house and contracted NASA Space Exploration programs and projects. This individual shall have the ability to negotiate critical and controversial issues with top-level technical and business managers (internal and external) and other officers of other companies and government departments. Demonstrates high degree of creativity, foresight, mature judgment and managerial skills in planning, organizing, and guiding extensive S&MA engineering programs and activities. This individual will be directly responsible for the planning, organizing, and staffing a work force of S&MA Engineering Supervisors/Functional Managers, Technical Experts, Engineers and SRM&QA professionals. Evaluates the progress of the technical and business managers including communication protocol for interfacing with internal staff as well as other companies and government departments. Responsible for allocation and reallocation of assigned resources producing deliverables, services and schedules including overall results obtained. Recommends major organizational structural and personnel changes as appropriate to achieve overall objectives. Maintains liaison with Technical Director, Functional Managers, Business Manager and individual units within and outside the organization with responsibility and authority to acting independently on technical/managerial matters pertaining to the fulfillment of work associated with a referenced program/project. Typical titles include but are not limited to: Program/Technical Manager II, Project Manager II, Safety and Mission Assurance Project Manager II, Quality Assurance Project Manager II.

Minimum educational requirements are a B.S. in Engineering/Engineering Management or other relevant field [Civil Service Aerospace Technology (AST) equivalent] plus continuing education; and a minimum of 5 years of specifically related SRM&QA Technical and/or Management experience at the EP8//EP6 level. Relevant graduate level education or SRM&QA Professional Certification may serve in lieu of 1 year relevant

experience. Significant S&MA Technical Management experience may serve in lieu of the minimum education requirement (specific NASA project experience is preferred).

Engineer/SRM&QA Professional (E/P-7) The (E/P-7) Technical Expert (TE)/Subject Matter Expert (SME) classification refers to an Engineer/ SRM&QA Professional that is a recognized authority in a specific field related to an aerospace safety, reliability (including maintainability and risk assessment), mission and quality assurance (SRM&QA) discipline. Individual must perform studies/analyses, make decisions and recommendations that are recognized as authoritative and have important and far-reaching impact(s) on extensive SRM&QA aerospace engineering activities. Individual initiates and maintains extensive contacts with lead SRM&QA engineers/professionals and other key government/industry officials including other organizations and companies. Individual shall possess the required insight/skill to understand and solve, persuade and negotiate on a range of critical Safety and Mission Assurance (S&MA) problems and/or issues. Individual shall have the ability to discover and solve unprecedented SRM&QA engineering problems associated with NASA's present and future manned and unmanned space flight programs and projects. Individual must be able to determine S&MA program requirements and objectives, organize supporting programs and projects activities and develop/apply standards and guides for diverse SRM&QA engineering activities including risk assessment and management. Individual must also possess the ability to direct/advise/coordinate the activities of several functional supervisors or team leaders while applying the appropriate analyses and recommended solutions to specific S&MA problems.
Typical titles include but are not limited to: Chief Engineer, Independent Technical Authority, Technical Expert (Reliability), Subject Matter Expert [Probabilistic Risk Analysis (PRA)], Technical Expert (Solid Rocket Propulsion), Technical Expert (ET Insulation Materials), Technical Expert (Cryogenic Propulsion Technology), Subject Matter Expert (Nuclear/Electric Ion Propulsion), Technical Expert (Aerospace Flight Systems Safety), Technical Expert (Ground Support Test Facility Safety).

Minimum educational requirements range from a B.S. to PhD in engineering or other relevant fields [Civil Service Aerospace Technology (AST) equivalent] plus continuing education; and a minimum of 5 years of specifically related SRM&QA and aerospace discipline experience at the TE/SME level. Relevant graduate level education or SRM&QA Professional Certification may serve in lieu of 1 year relevant experience. Significantly demonstrated aerospace SRM&QA technical expertise may serve in lieu of the minimum education requirement (specific NASA project experience is preferred).

Engineer/SRM&QA Professional (E/P-6) The (E/P-6) classification refers to an Engineer/Professional that has full technical responsibility for interpreting, organizing, executing, and coordinating assignments. Plans and develops S&MA engineering and assurance projects concerned with unique or controversial problems which have an important effect on major organization programs. This involves exploration of subject area, definition of scope and selection of problems for investigation and development of novel concepts and approaches. Maintains liaison with Project Manager, Functional Managers and individual units within and outside the organization with responsibility for

acting independently on technical/managerial matters pertaining to the field. Work at this level usually requires extensive progressive and relevant experience. This individual will plan, organize, and supervise the work of a staff of S&MA Engineering Supervisors/Functional Managers, Technical Experts and SRM&QA professionals. Evaluates the progress of the Supervisory/Functional Managers staff and overall results obtained and recommends major organizational structural and personnel changes to the Program Manager II to achieve overall objectives. This individual shall have the capability to assume the responsibilities of the Program/Technical II when delegated to do so. Typical titles include but are not limited to: Program/Technical Manager I, Project Technical Director, Chief Engineer, Chief Systems Engineer, Chief Quality Assurance Engineer, Principal Engineer, Deputy Program Manager.

Minimum educational requirements are a B.S. in engineering or other relevant field [Civil Service Aerospace Technology (AST) equivalent] plus continuing education; and a minimum of 5 years of specifically related SRM&QA and aerospace experience at the EP6/EP5 level. Relevant graduate level education or SRM&QA Professional Certification may serve in lieu of 1 year relevant experience. Significant aerospace SRM&QA specialty experience may serve in lieu of the minimum education requirement (specific NASA project experience is preferred).

Engineer/SRM&QA Professional (E/P-5) The (E/P-5) classification refers to an Engineer/Professional that has full technical responsibility for interpreting, organizing, executing, and coordinating assignments. Plans and develops S&MA engineering and assurance projects concerned with unique or controversial problems which have an important effect on major organization programs. This involves exploration of subject area, definition of scope and selection of problems for investigation and development of novel concepts and approaches. Maintains liaison with individuals and units within or outside the organization with responsibility for acting independently on technical matters pertaining to the field. Work at this level usually requires extensive progressive experience. This individual will plan, organize, and supervise the work of a staff of S&MA Engineers, SRM&QA professionals and Safety/Quality Assurance Specialists. Evaluates the progress of the staff and results obtained and recommends major changes to achieve overall objectives. Typical titles include but are not limited to: Engineering Supervisor-Project Assurance, Engineering Supervisor-System Safety, Engineering Supervisor-Industrial Safety, Engineering Supervisor-Quality Assurance, Engineering Supervisor-Reliability & Maintainability, Functional Engineering Manager.

Minimum educational requirements are a B.S. in engineering or other relevant field [Civil Service Aerospace Technology (AST) equivalent] plus continuing education; and a minimum of 5 years of specifically related SRM&QA and aerospace experience at the EP5/EP4 level. Relevant graduate level education or SRM&QA Professional Certification may serve in lieu of 1 year relevant experience. Significant aerospace SRM&QA specialty experience may serve in lieu of the minimum education requirement (specific NASA project experience is preferred).

Engineer/SRM&QA Professional (E/P-4) The (E/P-4) classification refers to an Engineer/Professional that applies intensive and diversified knowledge of S&MA engineering and assurance principles and practices in broad areas of assignments and related fields. Makes decisions independently on S&MA Engineering and assurance projects concerned with unique or controversial problems and methods, and represents the organization in conferences to resolve important questions and to plan and coordinate work. Requires the use of advanced techniques and the modifications and extension of theories, precepts, and practices of the field and related sciences and disciplines. The knowledge and expertise required for this level of work usually result from progressive experience. The individual supervises, coordinates, and reviews the work of a small staff of S&MA Engineers, SRM&QA professionals and Safety/Quality Assurance Specialists; estimates personnel needs and schedules and assigns work to meet completion date. This individual shall have the capability to assume the responsibilities of the E/P-5 supervisor when delegated to do so. Typical titles include but are not limited to: Senior Engineer, Senior Product Assurance Engineer, Senior Reliability Engineer, Senior Risk Assessment Engineer, Project Leader.

Minimum educational requirements are a B.S. in engineering or other relevant field [Civil Service Aerospace Technology (AST) equivalent] plus continuing education; and a minimum of 4 years of specifically related SRM&QA and aerospace experience at the EP4/EP3 level. Relevant graduate level education or SRM&QA Professional Certification may serve in lieu of 1 year relevant experience. Significant aerospace SRM&QA specialty experience may serve in lieu of the minimum education requirement (specific NASA project experience is preferred).

Engineer/SRM&QA Professional (E/P-3) The (E/P-3) classification refers to an Engineer/Professional that is fully competent in all conventional aspects of the subject matter of the functional area of the assignments; plans and conducts work requiring judgment in the independent evaluation, selection, and substantial adaptation and modification of standard techniques, procedures, and criteria. Devises new approaches to problems encountered. Position requires sufficient professional experience to assure competence as a fully trained worker. The individual may coordinate the work of other S&MA Engineers and supervise the work of Safety/Quality Assurance Specialist who assist in specific assignments. Typical titles include but are not limited to: Journeyman Engineer II, Quality Engineer II, Reliability& Maintainability Engineer II, System Safety Engineer II, Problem Assessment Engineer II, Payload Safety Engineer II, Risk Assessment Engineer II.

Minimum educational requirements are a B.S. in engineering or other relevant field [Civil Service Aerospace Technology (AST) equivalent] plus continuing education; and a minimum of 3 years of specifically related SRM&QA and aerospace experience at the EP3/EP2 level. Relevant graduate level education or SRM&QA Professional Certification may serve in lieu of 1 year relevant experience. Significant aerospace SRM&QA specialty experience may serve in lieu of the minimum education requirement (specific NASA project experience is preferred).

Engineer/SRM&QA Professional (E/P-2) The (E/P-2) classification refers to an Engineer/Professional that independently evaluates, selects, and applies standard S&MA engineering and assurance techniques, procedures, and criteria, using judgment in making minor adaptations and modifications. Assignments have clear and specified objectives and require the investigation of a limited number of variables. Performance at this level requires developmental experience in a professional position or equivalent graduate level education. The individual may supervise or coordinate the work of Safety and Safety/Quality Assurance Specialists who assist in specific assignments. Typical titles include but are not limited to: Journeyman Engineer I, Associate Industrial Safety Engineer, System Safety Engineer I, Reliability& Maintainability Engineer I, Associate Risk Assessment Engineer.

Minimum educational requirements are a B.S. in engineering or other relevant field [Civil Service Aerospace Technology (AST) equivalent] plus continuing education; and a minimum of 2 years of specifically related SRM&QA and aerospace experience at the EP2/EP1 level. Relevant graduate level education or SRM&QA Professional Certification may serve in lieu of 1 year relevant experience. Significant aerospace SRM&QA specialty experience may serve in lieu of the minimum education requirement (specific NASA project experience is preferred).

Engineer/SRM&QA Professional (E/P-1) The (E/P-1) classification refers to an Engineer/Professional that is at an entry level for professional work. The individual performs assignments designed to develop professional working knowledge and abilities requiring application of standard techniques, procedures, and criteria in carrying out a sequence of related S&MA engineering and assurance tasks. Limited exercise of judgment is required on details of work and in making preliminary selections and adaptations of S&MA Engineering alternatives. The individual may be assisted by a few Safety/Quality Assurance Specialists. Typical titles include but are not limited to: Junior Engineer, Junior Industrial Safety Engineer, Junior Quality Engineer, Junior Reliability & Maintainability Engineer, Junior Risk Assessment Engineer, Junior Payload Safety Engineer or Engineer-in-Training.

Minimum educational requirements are a B.S. in engineering or other relevant field [Civil Service Aerospace Technology (AST) equivalent] plus continuing education; and a minimum of 1 year of specifically related SRM&QA and aerospace experience at the EP1 level. Relevant graduate level education or SRM&QA Professional Certification may serve in lieu of 1 year relevant experience. Significant aerospace SRM&QA specialty experience may serve in lieu of the minimum education requirement (specific NASA project experience is preferred).

Senior Safety Specialist (SS-3) The SS3 classification focuses on helping prevent harm to workers, property, the environment, and the general public with public that require more knowledge, skills, and responsibility than the SS2 level. These employees promote occupational safety and health within the organization and analyze work environments

and design programs to control worker illness and injury. Knowledge of all listed for SS2 and in addition; Develop organizational safety and occupational health goals and objectives; Prepares safety policies, procedures and guidelines; Develop safety training curriculum; Review architectural and engineering drawings for new building construction and major alterations; Conduct specials studies for the resolution of safety and occupational health problems; Knowledge and skills to perform state-of-the-art analytical assessment techniques such as job, hazard analysis, hazard analysis, fault tree analysis, Risk Assessment, Failure Effects and Mitigation Analysis (FEMA), etc. for work processes performed at an industrial and manufacturing worksite. Typical position titles include Occupational Health and Safety Specialists, Construction and Building Inspectors, Fire Protection Specialist, Environmental Health Specialist, or Industrial Hygienist.

Minimum education requirements are a High School (HS) or equivalent general education diploma (GED), Continuing Education/Training directly related to this field of work, and a minimum of 5 years of specifically related Safety and aerospace experience at the SS3/SS2 level. An Associate of Science/Arts) (AS/AA), Bachelor of Science (BS)/Bachelor of Art (BA), or Certification in Safety [Certified Safety Professional (CSP)] or other related fields may serve in lieu of 1 year relevant experience.

Safety Specialist (SS-2) The SS2 classification focuses on helping prevent harm to workers, property, the environment, and the general public that require more knowledge, skills, and responsibility than the SS1 level. These employees promote occupational safety and health within the organization and analyze work environments and design programs to control worker illness and injury. Knowledge of all listed for S&QA 1 and in addition; Knowledge of specific safety and occupational health and general industry standards applicable to work activities performed in an industrial or manufacturing worksite such as laboratory hazards, storage and use of hazardous materials, machine guarding, lifting equipment, etc. and construction worksites such as building designs, construction methods, scaffolding, trenching/excavation, etc; Investigate and analyze mishaps and hazardous conditions to determine origin, causes, and contributing elements and prepares written evaluation reports; Plan, schedule and conduct periodic inspections/surveys onsite inspection/surveys of industrial, manufacturing, and construction worksites; Recommend to management the application of specific techniques, methods, and procedures to eliminate or control unsafe conditions; Prepare and revise safety instructions and guides. Typical position titles include Occupational Health and Safety Specialists, Construction and Building Inspectors, Fire Protection Specialist, Environmental Health Specialist, or Industrial Hygienist.

Minimum education requirements are a HS or equivalent GED, Continuing Education/Training directly related to this field of work, a minimum of 4 years of specifically related Safety and aerospace experience at the SS2/SS1 level. Undergraduate level courses, an Associates of Science (AS)/Associates of Art (AA) or Certification in Safety [Certified Safety Professional (CSP)] or other related fields may serve in lieu of 1 year relevant experience.

Junior Safety Specialist (SS-1) The SS1 classification typically focuses on helping prevent harm to workers, property, the environment, and the general public. These employees promote occupational safety and health within the organization, analyze work environments and design programs to control worker illness and injury. Knowledge of safety and occupational health principles and practices, techniques and procedures, regulations and standards sufficient to identify and evaluate occupational hazards in a wide variety of industrial, manufacturing and construction worksites; recommend control measures to eliminate unsafe conditions where equipment operations, work processes or working conditions may lead to injury to persons or damage to property; Knowledge of appropriate safety and health regulations and skill to examine a worksite and determine the level of personal protection or safeguard to provide the necessary the employee with protection; Knowledge and skill in investigate reports of unsafe working conditions, study possible causes and recommend remedial action; Perform periodic onsite inspection/surveys of industrial, manufacturing, and construction worksites; Knowledge and skill to recommend the level of safety control and hazard mitigation necessary; Advise supervisors of appropriate safety and occupational health measures to control or eliminate hazardous operating process or environmental conditions; Provide technical safety training to supervisors and employees; Skill in written and oral communications; and skill in establishing effective interpersonal relationships. Typical position titles include Occupational Health and Safety Specialists, Construction and Building Inspectors, Fire Protection Specialist, Environmental Health Specialist, or Industrial Hygienist.

Minimum education requirement is a HS diploma or an equivalent GED, Continuing Education/Training directly related to this type work, and a minimum of 3 years of specifically related Safety and aerospace experience at the SS1 level. Education past High School or a Certification in Safety [Certified Safety Professional (CSP)] or other related fields may serve in lieu of 1 year relevant experience.

Senior Quality Assurance Specialist (QAS-3) The QAS-3 classification evaluates products during design, development and production, and guarantees the quality of the finished products that require more knowledge, skill, and responsibility than the QAS2 level. Knowledge of all listed in level 2 and in addition; Knowledge and skill to analyze quality data to detect unsatisfactory trends or weaknesses in the quality or inspection system; Knowledge and skills necessary to define the critical elements of a system and the product quality characteristics to ensure adequate control is implemented used in manufacturing the product; Knowledge and skill to determine root cause of defects in production of products; Knowledge and skill to determine quality improvement through analysis and correction of causes of the defects; Skill in conducting studies and investigations, problem analysis, and developing logical and documented recommendations; Participate with engineering and others in developing plans and procedures for assuring quality and reliability of products; Review work instructions, technical data to identify characteristics critical to product acceptability, and provide inspection and test procedures. Typical position titles include Quality Control Inspectors.

Minimum education requirements are a HS or equivalent GED, Continuing Education/Training directly related to this field of work, and a minimum of 5 years of specifically related Quality Assurance and aerospace experience at the QAS3/QAS2 level. Undergraduate level courses, AS/AA, Bachelor of Science (BS)/Bachelor of Art (BA), Certification in quality assurance [Non Destructive Testing (NDT)] or related fields may serve in lieu of 1 year relevant experience.

Quality Assurance Specialist (QAS-2) The QAS2 classification evaluates products during development and production, and guarantees the quality of the finished products that require more knowledge, skill and responsibility than the QAS1 level. Knowledge of all listed for QAS1 and in addition; Knowledge of inspection, test, and measurement techniques, and statistical analysis and sampling techniques; Skill in interpreting and applying product specifications, technical data, regulations, policy statements, and other guideline materials; Knowledge and skill to control product quality in accordance with contractual requirements; Conduct audits/surveys of products and processes to detect product processing and technical documentation deficiencies and recommend corrective action; Knowledge and skill in interpreting and applying product specifications, technical data and regulations to product design; Investigate customer complaints and deficiency reports and provide identification of causes and appropriate corrective action. Typical position titles include Quality Control Inspectors.

Minimum education requirements are a HS or equivalent GED, Continuing Education /Training directly related to this field of work, and a minimum of 4 years of specifically related Quality Assurance and aerospace experience at the QAS2/QAS1 level. Undergraduate level courses, Associates of Science (AS)/Associates of Arts (AA), Certification in quality assurance [Non Destructive Testing (NDT)] or related field may serve in lieu of 1 year relevant experience.

Junior Quality Assurance Specialist (QAS-1) The QAS1 classification typically evaluates products during production and guarantees the quality of the finished products. Knowledge of quality assurance/control methods, principles and practices; Knowledge or pertinent product characteristics and applicable production maintenance, or repair methods and processes; Knowledge of relationship of quality assurance to other activities such as contract administration, engineering, supply, etc; Knowledge and skill to recommend the level of quality assurance/control necessary; Skill in written and oral communications; and skill in establishing effective interpersonal relationships. Typical position titles include Quality Control Inspectors.

Minimum education requirements are a HS or equivalent GED, Continuing Education/Training directly related to this field of work and a minimum of 3 years of specifically related Quality Assurance and aerospace experience at the QAS1 level. Education past High School or a Certification in quality assurance [Non Destructive Testing (NDT)] or related fields may serve in lieu of 1 year relevant experience.

Supervisory Computer Applications Programmer/Analyst (CAP/A-4) The (CAP/A-4) classification refers to a Computer Applications Programmer/Analyst (CP/A) that is

exceptionally competent in all conventional aspects of Information Technology (IT) and the specific subject matter of the Information Management (IM) functional area of the assignments. Plans and conducts work requiring judgment in the independent evaluation, selection, and substantial adaptation and modification of standard (IM/IT) techniques, procedures, and criteria. Devises new solution approaches to (IM/IT) problems encountered. Position requires sufficient professional experience to coordinate performance of (IM) functions in support of MSFC and S&MA.
Assess identified (IM/IT) needs and coordinate/interface with S&MA and other MSFC organizations. Analyze processes and derive requirements for (IM/IT) solutions. Establish internal processes in compliance with governing procedures and assure processes are implemented. Manage application development projects and coordinate/supervise other subordinate Analyst activities. Identify budgetary needs. Support the S&MA Organizational Chief Information Officer and Computer Security Official by attending meetings and performing functions as directed.
Typical titles include but are not limited to: Supervisory Computer Applications Programmer Analyst,- Supervisory Computer Applications Analyst, Senior Computer Applications Programmer/Analyst II, Senior Computer Applications Analyst II.

Minimum educational requirements are B.S. in Management Information Systems (MIS), Computer Science (CS) or related management fields; and a minimum of 5 years of specifically related CAP/A experience at the CAP/A-4/CAP/A-3 level. Graduate level education may serve in lieu of 1 year experience. Significant CAP/A specialty experience may serve in lieu of the minimum education requirement.

Senior Computer Applications Programmer/Analyst (CAP/A-3) The (CAP/A-3) classification refers to a Senior Computer Applications Programmer/Analyst (CAP/A) Analyst that is highly competent in all conventional aspects of Information Technology (IT) and the specific subject matter of the Information Management (IM) functional area of the assignments. The individual may oversee and coordinate the work of other Programmer/Analysts as delegated and directed by the Supervisory (CAP/A-4) Analyst. The essential functions of this positions are to: Provides (IM/IT) solutions for identified needs of the S&MA organization; derive requirements, produce design, develop and implement electronic applications for automation of S&MA processes; interface effectively with other developers; provide application documentation and configuration management for developed (IM/IT) solutions. Assists in planning and conducting of work requiring judgment in the independent evaluation, selection, and substantial adaptation and modification of standard (IM/IT) techniques, procedures, and criteria. Devises new solution approaches to (IM/IT) problems encountered. Position requires sufficient professional experience to stand in for and assist Supervisor (CAP/A)-4) Analyst in coordinating performance of (IM) functions in support of MSFC and S&MA.
Assists in the assessment and identification of (IM/IT) needs and coordinate/interface with S&MA and other MSFC organizations. Analyze processes and derive requirements for (IM/IT) solutions. Assist in the establishment of internal processes in compliance with governing procedures and assure processes are implemented. Possesses the ability to manage application development projects and coordinate/supervise other Analyst activities in the absence or delegation of the Supervisory (IM) Analyst. Assist in

identifying budgetary needs. Support the S&MA Organizational Chief Information Officer and Computer Security Official by attending meetings and performing functions as directed/delegated by Supervisory (IM) Analyst.
Typical titles include but are not limited to: Senior Applications Computer Programmer/Analyst, Senior Computer Applications Analyst, Senior Computer Applications Programmer,

Minimum educational requirements are B.S. in Management Information Systems (MIS), Computer Science (CS) or related management fields; and a minimum of 3 years of specifically related CAP/A experience at the CAP/A-3/CAP/A-2 level. Graduate level education may serve in lieu of 1 year experience. Significant CAP/A specialty experience may serve in lieu of the minimum education requirement.

Computer Applications Programmer/Analyst (CAP/A-2) The (CAP/A-2) classification refers to a Computer Programmer/ Analyst (CP/A) that is fully competent in all conventional aspects of Information Technology (IT) and the specific subject matter of the Information Management (IM) functional area of the assignments. The individual may coordinate and interface with other Programmer/Analysts as assigned and directed by the Supervisory (CAP/A) or Senior Computer Applications Analyst.
The essential functions of this positions are to: Provides (IM/IT) solutions for identified needs of the S&MA organization; derive requirements, produce design, develop and implement electronic applications for automation of S&MA processes; interface effectively with other developers; provide application documentation and configuration management for developed (IM/IT) solutions.
Assists senior (IM) analysts in planning and conducting of work requiring judgment in the independent evaluation, selection, and substantial adaptation and modification of standard (IM/IT) techniques, procedures, and criteria. Assists in the deriving of new solution approaches to (IM/IT) problems encountered. Position requires sufficient professional experience to assure competence as a fully trained worker who assist with coordinating performance of (IM) functions in support of MSFC and S&MA.
Assists senior (IM) analysts in the assessment and identification of (IM/IT) needs and coordinate/interface with S&MA and other MSFC organizations as directed. Assists senior (IM) analysts in analyzing processes and derive requirements for (IM/IT) solutions. Assists senior (IM) analysts in the establishment/implementation of internal processes in compliance with governing procedures. Possesses the ability to assist/contribute in application development projects and coordinate with other Analyst activities as directed by a Senior (IM) Analyst. Assist/contribute input in identifying budgetary needs. Support, as directed by Senior (IM) Analyst, the S&MA Organizational Chief Information Officer and Computer Security Official by attending meetings and performing specific functions.
Typical titles include but are not limited to: Computer Applications Programmer Analyst, Computer Applications Analyst, Computer Applications Programmer.

Minimum educational requirements are B.S. in Management Information Systems (MIS), Computer Science (CS) or related management fields; and a minimum of 1 year(s) of specifically related CAPA experience at the CP\A-2/ CP/A-2/CP/A-1 level. Graduate

level education may serve in lieu of 1 year experience. Significant CAP/A specialty experience may serve in lieu of the minimum education requirement.

Junior Computer Applications Programmer/Analyst (CAP/A-1) The (CAP/A-1) classification refers to a Junior Computer Programmer/Analyst (CAP/A) that is competent in all conventional aspects of Information Technology (IT) and the specific subject matter of the Information Management (IM) functional area of the assignments. The individual may assist and interface on specific work assignments as directed other Computer Applications Programmer/Analysts.
The essential functions of this position are to: Assist in providing (IM/IT) solutions for identified needs of the S&MA organization; assist in deriving requirements, Implement identified requirements for application development projects. Coordinate (IT) solutions by assuring adequate privileges, assessing hardware needs, and assisting users. Provide documentation as necessary.
Assists (IM) analysts in the development and implementation of work that required the judgment the independent evaluation of (IM) Analysts. Assists in the deriving of new solution approaches to (IM/IT) problems encountered. Position requires sufficient educational and professional experience to assure successful progression of the individual toward a fully trained and competent (IM) Analyst. Assists (IM) Analysts in deriving requirements for (IM/IT) solutions. Assists (IM) analysts in the implementation of internal processes in compliance with governing procedures. Possesses the ability to assist/contribute in the implementation of application development projects as directed by (IM) Analysts. Support all S&MA organizational elements as directed by other (IM) Analysts. Typical titles include but are not limited to: Computer Programmer, Junior Computer Applications Programmer, Associate Computer Applications Analyst, Computer Programmer/Analyst in-training.

Minimum educational requirements range from Associate of Science (AS) to a B.S. in Management Information Systems (MIS), Computer Science (CS) or related management fields; and a minimum of zero (0) to one (1) year(s) of specifically related CAP/A experience at the CAP/A-1 level. Graduate level education may serve in lieu of 1 year experience. Significant CAP/A specialty experience may serve in lieu of the minimum education requirement.

Supervisory Business Manager/Analyst (BM/A-4) The BM/A-4 classification refers to an individual with Business Management training and significant specialized experience in the fields of accounting, business, and finance. Qualifications include responsibility for major tasks involving financial accounting, financial planning and business management. This person is a direct report and assistant to the Project Manager. Extensive computer experience with a thorough knowledge of application programming and user knowledge of Microsoft Office/Access and web-based applications is a requirement of this position. Assignments are received from Project Manager in general terms that require the selection of appropriate accounting, financial, and business principles to complete. The individual defines detailed objectives, develops approach, organizes the work, and assures timely completion of work. Completed work is reviewed by Project Manager for adherence to policy and assurance that objectives have been met.

This individual is also responsible for supervising an office staff which provides Government contract deliverable documents and financial reports in a timely manner. This position requires independent judgment and autonomous operational modes with minimal supervision to ensure accurate accounting and management of Government aerospace contract deliverables and reporting. Typical titles include but are not limited to Supervisory Business Manager, Supervisory Finance Manager, Supervisory Accounting Manager, Supervisory Business Analyst, Supervisory Computer Applications Analyst.

Minimum educational requirements are BA in Business Administration, Finance, Computer Science or Accounting and a minimum of 5 years related experience in Government contract budget/cost reporting
Significant specialized training or graduate level education in related fields may serve in lieu of 1 year experience.

Senior Business Manager/Analyst (BM/A-3) The BM/A-3 classification refers to an individual with Business Management training and significant specialized experience in the fields of accounting, business, and finance. Qualifications include responsibility for major tasks involving financial accounting, financial planning and business management. Extensive computer experience with a thorough knowledge of application programming and user knowledge of Microsoft Office/Access and web-based applications is a requirement of this position The BM/A-4 Supervisor makes assignments in general terms that require the assisted selection of appropriate accounting, financial, and business principles to complete. This individual participates in defining detailed objectives, assists in developing approach options, assists in organization of work, and assures timely completion of work. Completed work is reviewed by Supervisor for adherence to policy and assurance that objectives have been met. This individual shall also capable of acting when delegated for the supervisor to direct the staff to provide Government contract deliverable documents and financial reports in a timely manner. This position requires independent judgment and autonomous operational modes with minimal supervision to ensure accurate accounting and management of Government aerospace contract deliverables and reporting. Typical titles include but are not limited to Senior Office Administrator, Senior Business Analyst, Senior Financial Analyst, Senior Accounting Analyst, Senior Computer Applications Analyst.

Minimum educational requirements are BA in Business Administration, Finance, Computer Science or Accounting and a minimum of 3 years related experience in Government contract budget/cost reporting
Significant specialized training or graduate level education in related fields may serve in lieu of 1 year experience.

Business Manager/Analyst (BM/A-2) The BM/A-2 classification refers to an individual with Business Management training and significant experience in the fields of accounting, business, and finance. Qualifications include performing tasks involving financial accounting, financial planning and business management. Computer applications programming experience with a thorough user knowledge of Microsoft Office/Access and web-based applications is a requirement of this position. The

Supervisor or Senior Business Analyst makes assignments with specific objectives and approaches that require the application of appropriate accounting, financial, and business principles to complete. This individual participates in achieving objectives utilizing the developed approach, performs specific work assignments and tasks in a timely manner. Completed work is reviewed by Supervisor or Senior Business Analyst for adherence to policy and assurance that objectives have been met. This individual functions as a staff or team member to assist in providing Government contract deliverable documents and financial reports in a timely manner. This position requires some independent judgment and autonomy of actions, however needed supervision is provided to ensure accurate accounting and management of Government aerospace contract deliverables and reporting. Typical titles include but are not limited to Office Administrator, Business Analyst, Financial Analyst, Accounting Analyst, Computer Applications Analyst.

Minimum educational requirements are BA in Business Administration, Finance, Computer Science or Accounting and a minimum of one (1) years related experience in Government contract budget/cost reporting. Significant specialized training or graduate level education in related fields may serve in lieu of 1 year experience.

Junior Business Manager/Analyst (BM/A-1) The BM/A-1 classification refers to an individual that is an Associate in Business Management training with some experience in the fields of accounting, business, and finance. Qualifications include assisting in the performance of some tasks involving financial accounting, financial planning and business management. Responsible for preparation of contract deliverables, including technical documentation and reports, correspondence and create electronic computer presentations and administration support to the Business Manager. Some computer applications programming experience with a user knowledge of Microsoft Office/Access and web-based applications is a desired requirement of this position. The Senior Business Analyst makes assignments with specific objectives and approaches that require the application of appropriate accounting, financial, and business principles to complete. This individual participates in achieving objectives utilizing the developed approach, performs specific work assignments and tasks in a timely manner. Completed work is reviewed by a Business Analyst for adherence to policy and assurance that objectives have been met. This individual functions as a staff or team member to assist in providing Government contract deliverable documents and financial reports in a timely manner. This position requires some independent judgment and autonomy of actions, however needed supervision is provided to ensure accurate accounting and management of Government aerospace contract deliverables and reporting. Typical titles include but are not limited to Document Support Specialist, Junior Business Analyst, Associate Business Analyst, Associate Financial Analyst, Junior Accounting Analyst, Associate Computer Applications Analyst, Business Analyst in Training.

Minimum educational requirements are High School/Equivalent or Associate of Arts (AA) in Business Administration, Finance, Computer Science or Accounting and a minimum of zero (0) one (1) year(s) related experience in Government contract budget/cost reporting. Significant specialized training or advanced undergraduate level education in related fields may serve in lieu of 1 year experience.

Secretary/Management Assistant (S/MA-3) The (S/MA-3) classification refers to a clerical position that encompasses exceptional proficiency in the following skills: use of Microsoft Office XP Professional application software, data entry and information processing, keyboarding, word processing, spreadsheets, power point presentations, data base management and other computer software packages. Proficiency in spelling, writing, punctuation and grammar along with the use of standard office equipment and procedures are all essential to fulfilling the requirements of this position. This position requires skills performed with an exceptionally high degree of accuracy and independent judgment. The individual may be assigned to work with highly technical material, plan and key complicated statistical tables, combine and rearrange materials from different sources and prepare master copies for distribution.
This individual is responsible for providing assistance and support to personnel to carry out travel arrangement, including the processing of travel documentation and travel activity reports.
Additional duties may include working with non-keyboard forms of data entry such as scanners and electronically transmitted files as well as performing standard office and administrative work like records keeping, tape librarian, sorting and filing mail, preparing correspondence and answering telephones. Scheduling/coordinating meetings with other NASA Centers thru Video Interagency Teleconference System (VITS) or teleconferences using coordinated power point presentation charts. Typical titles include but are not limited to: Secretary III, Senior Administrative Assistant, Travel Secretary

Minimum educational requirements range from HS/E to Associate of Arts Degree/Equivalent (AA/E) with emphasis on training in related skills, a minimum of 3 years of specifically related experience at the SM/A-3 level. Undergraduate level education past High School may serve in lieu of 1 year experience. Significant Administrative Assistant and Travel processing experience may serve in lieu of the minimum education requirement.

Secretary/Management Assistant (S/MA-2) The (S/MA-2) classification refers to a clerical position that encompasses a high degree of proficiency in the following skills: use of Microsoft Office XP Professional application software, data entry and information processing, keyboarding, word processing, spreadsheets, power point presentations, data base management and other computer software packages. Proficiency in spelling, writing, punctuation and grammar along with the use of standard office equipment and procedures are all essential to fulfilling the requirements of this position. This position requires skills performed with an exceptionally high degree of accuracy and independent judgment. The individual may be assigned to work with highly technical material, plan and key complicated statistical tables, combine and rearrange materials from different sources and prepare master copies for distribution.
This individual is responsible for providing administrative support in human resources and management of the applicant pool data base which includes receiving, reviewing and entering all resumes. Act as company representative for recruiting at colleges/ universities and attending job fairs.

Additional duties may include working with non-keyboard forms of data entry such as scanners and electronically transmitted files as well as performing standard office and administrative work like records keeping, tape librarian, sorting and filing mail, preparing correspondence and answering telephones. Scheduling/coordinating meetings with other NASA Centers thru Video Interagency Teleconference System (VITS) or teleconferences using coordinated power point presentation charts. Typical titles include but are not limited to: Secretary II, Administrative Assistant, Human Resources Specialist.

Minimum educational requirements range from HS/E to Associate of Arts Degree (AA/E) with emphasis on training in related skills, a minimum of 1 year (s) of specifically related experience at the SM/A-2 level. Undergraduate level education past High School may serve in lieu of 1 year experience. Significant human resources and recruiting experience may serve in lieu of the minimum education requirement.

Secretary/Data Clerk (SDC-2) [Senior Data Entry] The (SDC-2) classification refers to a clerical position that encompasses exceptional proficiency in the following skills: use of Microsoft Office XP Professional application software, data entry and information processing, keyboarding, word processing, spreadsheets, power point presentations, data base management and other computer software packages. Proficiency in spelling, writing, punctuation and grammar along with the use of standard office equipment and procedures are all essential to fulfilling the requirements of this position. This position requires skills performed with an exceptionally high degree of accuracy and independent judgment. The individual may be assigned to with highly technical material, plan and key complicated statistical tables, combine and rearrange materials from different sources and prepare master copies for distribution. Additional duties may include working with non-keyboard forms of data entry such as scanners and electronically transmitted files as well as performing standard office and administrative work like records keeping, tape librarian, sorting and filing mail, preparing correspondence and answering telephones. Scheduling/coordinating meetings with other NASA Centers thru Video Interagency Teleconference System (VITS) or teleconferences using coordinated power point presentation charts. Typical titles include but are not limited to: Data Processing Clerk, Administrative Assistant, Secretary II, Senior Word-Processing Clerk

Minimum educational requirements range from HS/E to AS/E with emphasis on training in related skills, a minimum of 3 years of specifically related experience at the SDC-1 level. Undergraduate level education past High School may serve in lieu of 1 year experience. Significant data processing or clerical experience may serve in lieu of the minimum education requirement.

Secretary/Data Clerk (SDC-1) [Data Entry] The (SDC-1) classification refers to a clerical position that encompasses a high degree of proficiency in the following skills: use of Microsoft Office XP Professional application software, data entry and information processing, keyboarding, word processing, spreadsheets, power point presentations, data base management and other computer software packages. Proficiency in spelling, writing,

punctuation and grammar along with the use of standard office equipment and procedures are all essential to fulfilling the requirements of this position. This position requires skills performed with a high degree of accuracy and independent judgment. The individual may be assigned to work with highly technical material, plan and key complicated statistical tables, combine and rearrange materials from different sources and prepare master copies for distribution. Additional duties may include working with non-keyboard forms of data entry such as scanners and electronically transmitted files as well as performing standard office and administrative work like records keeping, tape librarian, sorting and filing mail, preparing correspondence and answering telephones. Scheduling/coordinating meetings with other NASA Centers thru Video Interagency Teleconference System (VITS) with power point presentation charts. Typical titles include but are not limited to: Data Entry Clerk, Administrative Clerk, Secretary, Word-Processing Clerk.

Minimum educational requirements range from High School Equivalent/Equivalent (HS/E) to some college credits with emphasis on training in related skills and a minimum of 1 year of specifically related experience at the SDC-1 level. Undergraduate level education past High School may serve in lieu of 1 year experience. Significant data processing or clerical experience may serve in lieu of the minimum education requirement.

ATTACHMENT J-7

INSTALLATION-PROVIDED PROPERTY AND SERVICES

All contract employees shall be located on-site at MSFC. The Government shall provide the following property and services in support of this contract effort. The provisions for contractor usage, control and accountability of all Government provided property is set forth in Part I, sections G.5 and G.6.

I. Government Provided Equipment

The items listed below are a representative list of equipment and services to be made available to the contractor for use in the performance of this contract.

Equipment	Quantity
Fax Machines	3
Lap Top Computers (Service Provider Accountable, ODIN)	34
Printers	13
Special Display Units	3
Desk Top Computers (Service Provider Accountable, ODIN)	103
Sheet Feeder	1
Scanners	2
Uninterrupted Power Supply Units	1
Audio Video Projectors	2

Note: The policy regarding issuance of communication devices has changed. The Government no longer supplies cell phones, pagers and/or personal data assistant devices for Contractor use.

II. General Property and Services to be Provided Onsite at MSFC

The Government shall be responsible for furnishing the following onsite equipment and services:

1. Reproduction Services
2. Janitorial Services
3. Onsite Taxi Service
4. Technical Work Rooms
5. Conference Rooms
6. Storage Space

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ATTACHMENT J-8

APPLICABLE REGULATIONS AND PROCEDURES

The documents listed herein contain specifications to which the work described in the Performance Work Statement (Attachment J-1) shall conform. The contractor shall comply with all the requirements of these documents and all revisions thereto.

As a Services Contract provider, the contractor shall utilize all NASA and MSFC Directives and Standards as applicable, as well as Safety and Mission Assurance Organizational Instruction(s) (OIs). MSFC Directives may be found at the following URL:
http://webpub.nis.nasa.gov/directives/directives.htm
S&MA OIs may be found at the following URL: (http://foia.msfc.nasa.gov/reading.html).
Current versions shall be utilized, unless authorization to use obsolete versions has been properly documented.

NOTE: There are several CLV and other hardware design and development documents that will need to be added herein as soon as they become baselined, such as PRACA requirements, FMEA/CIL groundrules, hazard analysis methodology, etc.

The following documents are applicable as stated in the Performance Work Statement (Attachment J-1) and the Data Procurement Document (Attachment J-2).

Executive Order 13101	Greening the Government through Waste Prevention, Recycling, and Federal Acquisition
FAR	Federal Acquisition Regulation, Part 45
FCR DOD 5220.22-M	National Industrial Security Program Operating Manual
FED-STD-313 D	Material Safety Data, Transportation Data, And Disposal Data For Hazardous Materials Furnished To Government Activities
29 CFR 1910	Department of Labor; Occupational Safety and Health Standards
29 CFR 1926	Department of Labor; Occupational Safety and Health Administration Standards for Construction Industry
29 CFR 1960	Basic Program Elements for Federal Employee Occupational Safety and Health Programs
40 CFR	Protection of the Environment
	ASME Boiler and Pressure Vessel Code

OMB CIRCULARS

Circular A-130	Management of Federal Resources

NASA DOCUMENTATION

NPD 1490.1	NASA Printing, Duplicating, and Copying Management
NPD 8700.1	NASA Policy for Safety and Mission Success
NPR 1600.1	NASA Security Program Procedural Requirements
NPR 4100.1	NASA Materials Inventory Management Manual
NPR 4200.1	NASA Equipment Management Manual
NPR 5100.4	Federal Acquisition Regulation Supplement, (NASA/FAR Supplement) Part 18-45 and latest revisions thereto
NPR 7120.5	NASA Program and Project Management Processes and Requirement
NPR 8000.4	Risk Management Procedural Requirements
NPR 8621.1	NASA Procedural Requirements for Mishap Reporting, Investigating, and Recordkeeping
NPR 8705.6	NASA Procedural Requirements for Safety and Mission Assurance Reviews and Assessments
NPR 8715.3	NASA Safety Manual
NPR 9501.2	NASA Contractor Financial Management Reporting
NASA-STD-8719.9	Standard for Lifting Devices and Equipment
NASA-STD-8719.11	Safety Standard for Fire Protection
NSS-1740.12	Safety Standard for Explosives, Propellants and Pyrotechnics

MSFC DOCUMENTATION

MPD 1040.3	MSFC Emergency Program
MPD 1280.1	Marshall Management Manual

MPD 1280.4	MSFC Corrective Action System
MPD 1800.1	MSFC Smoking Policy
MPD 1840.1	MSFC Environmental Health Program
MPD 1840.2	MSFC Hearing Conservation Program
MPD 1840.3	MSFC Respiratory Protection Program
MPD 1860.1	Laser Safety
MPD 1860.2	Radiation Safety Program
MPD 2190.1	MSFC Export Control Program
MPD 2210.1	Documentation Input and Output of the MSFC Documentation Repository
MPD 8720.1	MSFC Reliability and Maintainability Program for Space Systems
MPD 8900.1	Medical Operations Responsibilities for Human Space Flight Programs
MPR 1040.3 (J)	MSFC Emergency Plan
MPR 1440.2	MSFC Records Management Program
MPR 1600.1	MSFC Security Procedural Requirements
MPR 1800.1	Bloodborne Pathogens
MPR 1810.1	MSFC Occupational Medicine
MPR 1840.1	MSFC Confined Space Entries
MPR 1840.2	MSFC Hazard Communication Program
MPR 1840.3	MSFC Hazardous Chemicals in Laboratories Protection Program
MPR 2500.1	Marshall Telecommunications and Audio Visual Services
MPR 2810.1	Security of Information Technology
MPR 3410.1	Training

MPR 4000.2	Property Management
MPR 6700.1	Motor Vehicle and Motor Pool Operations
MPR 8060.3	Requirements and Design Reviews, MSFC Programs and Projects
MPR 8500.1	MSFC Environmental Management Program
MPR 8715.1	Marshall Safety, Health and Environmental (SHE) Program
MWI 1280.3	Corrective/Preventive Action Notification System
MWI 1280.5	MSFC ALERT Processing
MWI 1700.2	System Safety Program
MWI 2210.1	MSFC Documentation Repository Input/Output and Data Management Project Requests
MWI 3410.1	Personnel Certification Program
MWI 4200.1	Equipment Control
MWI 4220.1	Space Utilization, Communications, Furniture, Relocation, and Special Event Services
MWI 4300.1	Disposal Turn-Ins/Reutilization Screening
MWI 4500.1	Program Stock, Storage, and Retail Store Operations
MWI 4520.1	Receiving
MWI 4520.2	Use of the Procurement Discrepancy Tracking System (PDTS)
MWI 5116.1	Evaluation of Contractor Performance Under Contracts with Award Fee Provisions
MWI 6410.1	Packaging, Handling, and Moving Program Critical Hardware (PCH)
MWI 6430.1	Lifting Equipment and Operations
MWI 7120.6	Program Project Continuous Risk Management
MWI 8621.1	Close Call and Mishap Reporting and Investigation Program
MWI 8715.3	Hazard Identification and Warning System

MWI 8715.15	Ground Operations Safety Assessment and Risk Mitigation Program

ANSI STANDARDS applicable to the scope of this contract

ANSI/ASME-B31.1 2004	Power Piping
ANSI/ASME-B31.3 2004	Process Piping
ANSI/AWS-D1.1/D1.1M ED20	Structural Welding Code – Steel
ANSI/AWS-D1.2/D1.2M ED4	Structural Welding Code Aluminum
NFPA STANDARDS	National Electrical Code and National Fire Code

MISCELLANEOUS POLICIES AND PROCEDURES

NSTS 08126J	Problem Reporting and Corrective Action System Requirements
SSP 30223	International Space Station Program Problem Reporting and Corrective Action System Requirements

ATTACHMENT J-9-1

SCHEDULE OF FULLY BURDENED/COMPOSITE NOT-TO-EXCEED (NTE) LABOR RATES ($/Hr) FOR PRIME CONTRACTOR

The contractor shall not exceed the labor rates specified below for pricing all Task Orders contemplated or issued in accordance with Clause H.5, Supplemental Task Order Procedures. See Section L, Volume II Cost Factor for definition of fully burdened rates.

FULLY BURDENED/COMPOSITE (NTE) LABOR RATES ($/HR) FOR PRIME CONTRACTOR

Includes G&A at the lower of proposed rates (not ceiling rates). Excludes fee - See Attachment J-9, page 2.

(b)(4)

Detailed Corresponding Labor Category Position Descriptions are defined in Attachment J-6.

Technical Expert (TE)/Subject Matter Expert (SME) categories (defined Attachment J-6) with labor rates shall be proposed by the Offeror for this Solicitation; however, actual TE/SME labor/rate categories shall be negotiated and approved by the Contracting Officer on an individual basis, as required during the entire period of performance for this contract.

ATTACHMENT J-9-2

AWARD FEE, AWARD TERM FEE (FIXED FEE), RATE MATRIX

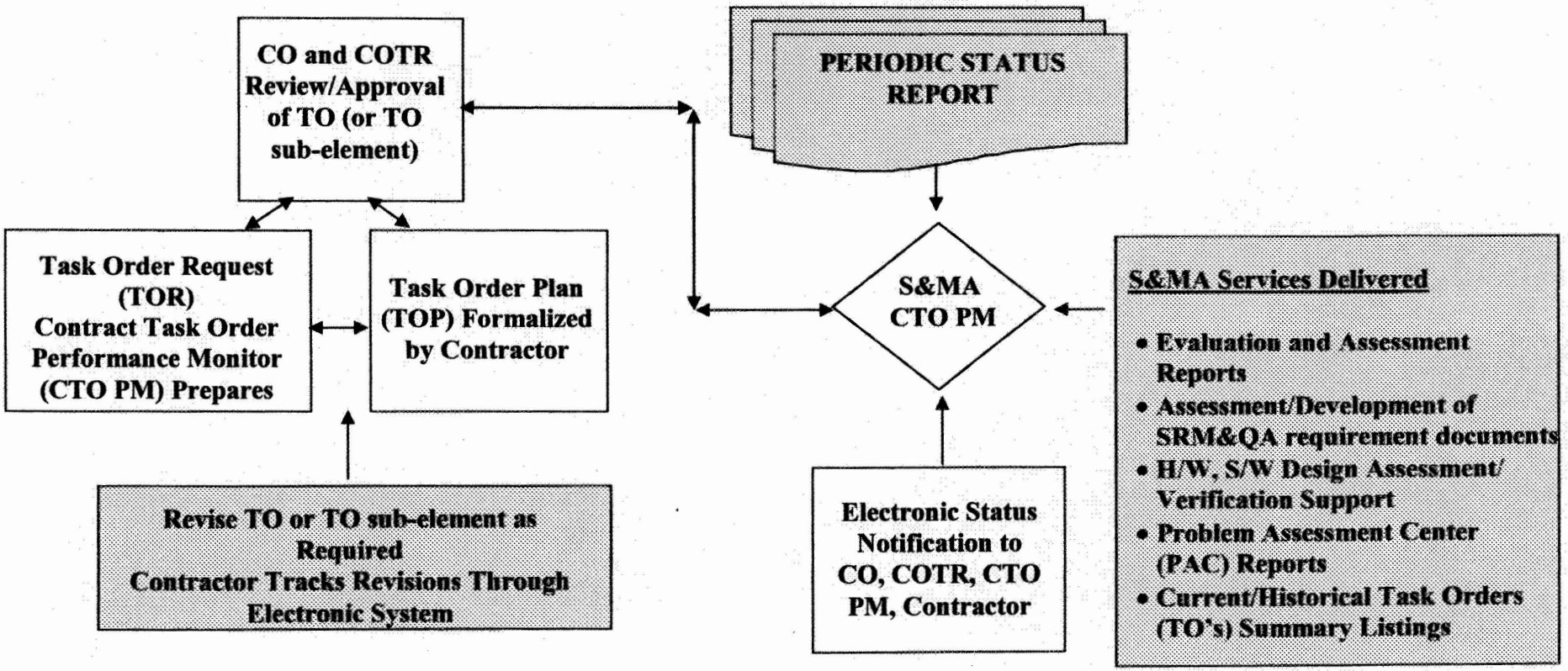
(For All Task Orders):

RATES	CY1	CY2	CY3	C CY4	CY5	CY6	CY7	CY8	CY9	CY10
Award Fee *	9.17%	9.17%		9.17%	9.17%		9.17%		9.17%	9.17%
Award Term Fee *			3.61%			3.61%		3.61%		

* (b)(4)

ATTACHMENT J-10

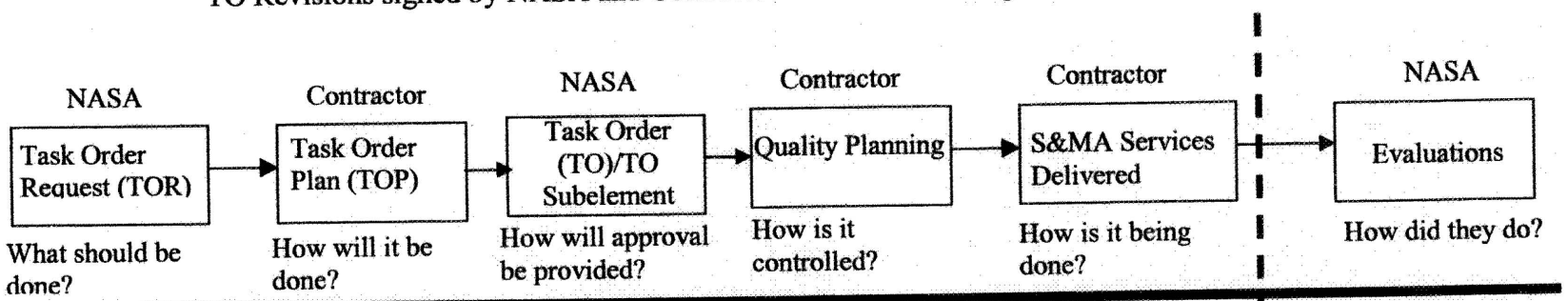
Task Flow Process



NOTE: Process shall be automated to include electronic routing and approvals. See narrative discussion of Task Ordering Procedure in H.4 and PWS 2.7 in Attachment J-1.

Electronic Task Flow Description

TO Revisions signed by NASA and Contractor and tracked through electronic system



S&MA Services Requirements
- Deliverables
- Other specific SRM&QA requirements

Cost Issues

Schedule Requirements Milestones

Performance Objectives Defined

Professional SRM&QA
- Skills
- Tools required
- Technical
- WBS element

Cost
- Cost Plan
- Labor
- Material
- ODC (Travel, etc.)

Schedule
- Milestone Schedule
- Delivery Dates

Risk Assessment
- Mitigation

Special
- Recruiting
- Safety

Agreement Reached

Authorization to begin performance
Or
Disapproval

Quality System Requirements

Quality Records

Activity Reports
- Management/ Technical
- Cost
- Schedule
- Issues

All requirements addressed

Submitted electronically

CTO PMs review Technical, Schedule, Management & Cost (TSM&C) quarterly

Performance Evaluation Board conducted at six (6) month intervals
- Coordinator report on TSM&C
- Contractor provides self-evaluation

Fee/Term awarded

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Attachment J-11

Work Breakdown Structure

NOTE: Bullet items are not WBS elements and are included solely to indicate the nature of the superior WBS element. Detailed WBS element Task Descriptions are further identified by PWS paragraph number in Attachment J-1.

Safety and Mission Assurance Services Contract

2.0 Management

- Project Management
- Property Management
- Occupational Safety &Health
- Working Group Support
- Personnel Training & Certification
- S&MA Discipline Expertise
- Task Order Management

3.0 System Safety Engineering

- Analytical Tool Development
- Assess Project Documents
- Trade Studies (TS)
  - In-house Designs
  - Contracted Designs
- Prepare Safety Plans
- Perform Hazard Analyses
- Verification Plan Support

4.0 Industrial Safety Programs

- Annual OSHA Inspections
- Construction Site Inspections
- Inspection of New Facilities
- Fire Alarm Testing
- Facility Hazard Analyses/Procedures
- Safety Engineering Evaluations

5.0 Reliability and Maintainability Engineering

- Perform Systems Analysis
- Probability Risk Assess (PRA)
- Perform HW/SW Assessment
- Alert Program Maintenance
- Problem Assessment Center (PAC)
- Problem Reporting and Corrective Action (PRACA)

6.0 Quality Assurance Engineering

- Flight Systems QA
- Process and Product Assurance
- Problem Analysis
- Personnel Certification Admin.
- Software Assurance (SA)

7.0 S&MA Information Management (IM)

- Develop/ Manage (IM/IT) tools
- Prepare and Manage Documents
- Assess (IM/IT) System Requirements
- Perform (IM/IT) System Design

8.0 Project Assurance Engineering

- Assure Project Requirements
- Readiness Review Center
- Support NASA Engineering and Safety Center (NESC)

9.0 Independent Assurance (IA) Tasks

- Closure of Reports\Audit
- Track Project Operations
- Develop IA work plans
- Perform IA Assessments
- Develop Analysis Reports
- Closure of Reports\Audits

10.0 Risk Management

- Develop Risk Analysis Tools
- Provide Risk Identification, Tracking, Mitigation and Assessment Analysis
- Risk Management
  - Training
  - Teaching

11.0 Documentation and Report Support

- Support S&MA Document Development
- Support S&MA Document evaluation and assessment of requirements

CONTRACT NNM07AA74C
ATTACHMENT J-12
DOD FORM 254 CONTRACT SECURITY CLASSIFICATION AND SPECIFICATION

DEPARTMENT OF DEFENSE
CONTRACT SECURITY CLASSIFICATION SPECIFICATION

(The requirements of the DoD Industrial Security Manual apply to all security aspects of this effort.)

1. CLEARANCE AND SAFEGUARDING

a. FACILITY CLEARANCE REQUIRED: **SECRET**

b. LEVEL OF SAFEGUARDING REQUIRED: **SECRET**

2. THIS SPECIFICATION IS FOR: *(X and complete as applicable)*

	a. PRIME CONTRACT NUMBER	
	b. SUBCONTRACT NUMBER	
X	c. SOLICITATION OR OTHER NUMBER: NNM06AA82C	Due Date (YYMMDD): TBD

3. THIS SPECIFICATION IS: *(X and complete as applicable)*

	a. **ORIGINAL** *(Complete date in all cases)*		Date (YYMMDD)
	b. **REVISED** *(Supersedes all previous specs)*	Revision No.	Date (YYMMDD)
	c. **FINAL** *(Complete Item 5 in all cases)*		Date (YYMMDD)

4. IS THIS A FOLLOW-ON CONTRACT? [X] **YES** [ ] NO. If Yes, complete the following:

Classified material received or generated under _____ *(Preceding Contract Number)* is transferred to this follow-on contract.

5. IS THIS A FINAL DD FORM 254? [ ] YES [X] **NO.** If Yes, complete the following:

In response to the contractor's request dated _____, retention of the classified material is authorized for the period _____

6. CONTRACTOR *(Include Commercial and Government Entity (CAGE) Code)*

a. NAME, ADDRESS, AND ZIP CODE	b. CAGE CODE	c. COGNIZANT SECURITY OFFICE *(Name, Address, and Zip Code)*
TBD	TBD	TBD

7. SUBCONTRACTOR

a. NAME, ADDRESS, AND ZIP CODE	b. CAGE CODE	c. COGNIZANT SECURITY OFFICE *(Name, Address, and Zip Code)*

8. ACTUAL PERFORMANCE

a. LOCATION	b. CAGE CODE	c. COGNIZANT SECURITY OFFICE *(Name, Address, and Zip Code)*
NASA George C. Marshall Space Flight Center Marshall Space Flight Center, AL 35812	N/A	NASA Protective Services/AS50 Marshall Space Flight Center, AL 35812

9. GENERAL IDENTIFICATION OF THIS PROCUREMENT

Safety & Mission Assurance Services at Marshall Space Flight Center

10. CONTRACTOR WILL REQUIRE ACCESS TO:	YES	NO	11. IN PERFORMING THIS CONTRACT, THE CONTRACTOR WILL:	YES	NO
a. COMMUNICATIONS SECURITY (COMSEC) INFORMATION		X	a. HAVE ACCESS TO CLASSIFIED INFORMATION ONLY AT ANOTHER CONTRACTOR'S FACILITY OR A GOVERNMENT ACTIVITY	X	
b. RESTRICTED DATA		X	b. RECEIVE CLASSIFIED DOCUMENTS ONLY		X
c. CRITICAL NUCLEAR WEAPON DESIGN INFORMATION		X	c. RECEIVE AND GENERATE CLASSIFIED MATERIAL		X
d. FORMERLY RESTRICTED DATA		X	d. FABRICATE, MODIFY, OR STORE CLASSIFIED HARDWARE		X
e. INTELLIGENCE INFORMATION			e. PERFORM SERVICES ONLY		X
(1) Sensitive Compartmented Information (SCI)		X	f. HAVE ACCESS TO U.S. CLASSIFIED INFORMATION OUTSIDE THE U.S., PUERTO RICO, U.S. POSSESSIONS AND TRUST TERRITORIES		X
(2) Non-SCI			g. BE AUTHORIZED TO USE THE SERVICES OF DEFENSE TECHNICAL INFORMATION CENTER (DTIC) OR OTHER SECONDARY DISTRIBUTION CENTER	X	
f. SPECIAL ACCESS INFORMATION		X	h. REQUIRE A COMSEC ACCOUNT		X
g. NATO INFORMATION		X	i. HAVE TEMPEST REQUIREMENTS		X
h. FOREIGN GOVERNMENT INFORMATION		X	j. HAVE OPERATIONS SECURITY (OPSEC) REQUIREMENTS		X
i. LIMITED DISSEMINATION INFORMATION		X	k. BE AUTHORIZED TO USE THE DEFENSE COURIER SERVICE		X
j. FOR OFFICIAL USE ONLY INFORMATION	X		l. OTHER *(Specify)*		
k. OTHER *(Specify)* *Sensitive but Unclassified(SBU)*	X				

DD Form 254, DEC 90 (EG) *Previous editions are obsolete.* (MS Word 4/96)

12. PUBLIC RELEASE Any information *(classified or unclassified)* pertaining to this contract shall not be released for public dissemination except as provided by the Industrial Security Manual unless it has been approved for public release by appropriate U.S. Government authority. Proposed public releases shall be submitted for approval prior to release

[ ] Direct [X] Through *(Specify)*

Public Affairs Office, CS20, George C. Marshall Space Flight Center, Marshall Space Flight Center, AL 35812
(must provide four (4) copies)

to the Directorate for Freedom of Information and Security Review, Office of the Assistant Secretary of Defense (Public Affairs)* for review.
*In the case of non-DoD User Agencies, requests for disclosure shall be submitted to that agency.

13. SECURITY GUIDANCE. The security classification guidance needed for this classified effort is identified below. If any difficulty is encountered in applying this guidance or if any other contributing factor indicates a need for changes in this guidance, the contractor is authorized and encouraged to provide recommended changes; to challenge the guidance or the classification assigned to any information or material furnished or generated under this contract; and to submit any questions for interpretation of this guidance to the official identified below. Pending final decision, the information involved shall be handled and protected at the highest level of classification assigned or recommended. *(Fill in as appropriate for the classified effort. Attach, or forward under separate correspondence, any documents/guides/extracts referenced herein. Add additional pages as needed to provide complete guidance.)*

- All classification guidance on this contract shall be provided by NASA.
- Security clearances and classified access is limited to TBD Work. Clearances and access is not authorized for other tasks. Changes shall be furnished if it is determined to be necessary.
- Security clearances should be held at a minimum to perform the task.
- Classification Guides:
  NASA Procedures and Guidelines, Security Procedures and Guidelines, NPG 1620.1, November 18, 1999
  National Industrial Security Program, Operating Manual, DOD 5220.22-M
- Security Program Procedural Requirements, NPR 1600.1, w/change 1 (11/08/2005)

14. ADDITIONAL SECURITY REQUIREMENTS. Requirements, in addition to ISM requirements, are established for this contract. *(If Yes, identify the pertinent contractual clauses in the contract document itself, or provide an appropriate statement which identifies the additional requirements. Provide a copy of the requirements to the cognizant security office. Use Item 13 if additional space is needed.)* [ ] Yes [X] No

15. INSPECTIONS. Elements of this contract are outside the inspection responsibility of the cognizant security office. *(If Yes, explain and identify specific areas or elements carved out and the activity responsible for inspections. Use Item 13 if additional space is needed.)* [ ] Yes [X] * No

*Except for employees assigned to MSFC physically.

16. CERTIFICATION AND SIGNATURE. Security requirements stated herein are complete and adequate for safeguarding the classified information to be released or generated under this classified effort. All questions shall be referred to the official named below.

a. TYPED NAME OF CERTIFYING OFFICIAL	b. TITLE	c. TELEPHONE *(Include Area Code)*
Mike Wilson	Manager, Protective Services Office Marshall Space Flight Center	(256) 544-5205

d. ADDRESS *(Include Zip Code)*	17. REQUIRED DISTRIBUTION	
NASA/Marshall Space Flight Center AS50 MSFC, AL 35812	X	a. CONTRACTOR
		b. SUBCONTRACTOR
	X	c. COGNIZANT SECURITY OFFICE FOR PRIME AND SUBCONTRACTOR
e. SIGNATURE		d. U.S. ACTIVITY RESPONSIBLE FOR OVERSEAS SECURITY ADMINISTRATION
	X	e. ADMINISTRATIVE CONTRACTING OFFICER
	X	f. OTHERS AS NECESSARY

CONTRACT **NNM07AA74C**

ATTACHMENT J-13

SAFETY, HEALTH AND ENVIRONMENTAL PLAN

See Attached

ATTACHMENT J-14

SAFETY HEALTH MANAGEMENT IMPLEMENTATION GUIDE AND ASSESSMENT MATRIX

The Contractor is responsible for maintaining an effective safety program during the course of the contract with a goal to achieve a world-class program within the term of the contract. See Paragraph H.17 for details.

Score	Commitment and Involvement (Element 1)		Worksite System and Analysis (Element 2)	Hazard Prevention and Control (Element 3)	Safety and Health Training (Element 4)
	A. Management	B. Employee			
10	Benchmarking indicates "best in Class." In areas of visible management leadership, responsibility/accountability, meaningful metrics, and incentive/recognition systems.	Employees fully involved, safety committees functioning well, is a complete behavior process functioning at least one year, employees involved in process planning and risk assessment.	All subelements fully in place and functioning well for at least one year.	All programs and subelements fully functioning for one year. Strong professional support.	All training processes functioning, all levels of personnel trained to identified needs, management training ongoing.
9	All subelements are in place and functioning well, but have as yet to reach full maturity.	All processes functioning but for limited time, employees involved to great extent.	All subelements in place, employees actively participating.	All programs and subelements in place and functioning.	All training processes established, management initial training complete.
8	One subelement not fully in place but all are being implemented.	Most processes in place, employee involvement growing.	All subelements functioning, employee participation growing.	At least five subelements functioning and one in final stage of implementation.	Most personnel trained to identified needs, training recordkeeping and recall system functioning.
7	Two subelements not fully implemented. Implementation in process on all elements. Employee participation and commitment widespread.	Process activities expanding through organization. Committees and teams functioning.	At least five subelements functioning and remainder established.-	+At least four subelements functioning, remaining two developing.	Management and supervisor training in process, specialized training in process.
6	All subelements in process or in place. Strong management leadership and commitment begun, metric systems in place, resourcing appropriate.	Employee representatives functioning, joint committees functioning, participating in risk assessment and accident investigation.	At least four subelements functioning and remaining three in process, employee participation beginning to spread through organization.	Medical and safety programs strengthening. Emergency preparedness program established and exercised.	Management training in process developed, supervisor training developed, training recordkeeping and recall system developed.
5	Management commitment and leadership accepted by workers, worker participation and commitment begun, metric system.	Employee representatives appointed/elected, committees beginning to perform functions (investigation, analysis, process improvement).	All subelements established, employees beginning to participate.	Rules written, medical and safety programs developing Personal Protective Equipment adequate.	Training template completed for all personnel, training needs identified, process development begun, recordkeeping and recall system being developed.
4	Management commitment and leadership flowing down to workers, metric	All processes being established, involvement and	At least five subelements initiated including self-	Rules in process, emergency preparedness	Training development in process, specialized training established.

Score	Commitment and Involvement (Element 1)		Worksite System and Analysis (Element 2)	Hazard Prevention and Control (Element 3)	Safety and Health Training (Element 4)
	A. Management	B. Employee			
	systems being developed, incentive/recognition system in process.	awareness enhancement growing.	assessment, hazard reporting, mishap close call investigations.	program being developed.	Mandatory training in process
3	Generally good management commitment and leadership, implementation plans approved for all elements	All process needs identified, awareness and involvement enhancement activities begun.	Job Hazard analysis established, investigations strengthened and include employee	Medical program initiated safety and health program initiated.	Training needs evaluation complete, training templates in process, recordkeeping and recall system needs to be established
2	Management exhibits some aspects of leadership, accountability systems not well defined, employee participation framework defined, limited metrics.	Committees established, little activity, employee involvement beginning, awareness of process started.	Plans established to implement all subelements, at least two subelements beginning to function.	Personal protective equipment requirements established and being enforced, plans developed for other elements.	Training needs evaluation begun, training template forms developed.
1	Subelements have not been established to any significant extent, management leadership is lacking, little or no employee participation	No committees, little or no employee involvement, no process, little process planning.	Two or fewer subelements established, no self-inspection, shallow accident investigation process.	Few or no programs or subelements established, few written rules, limited enforcement.	Training needs not established, no management training, limited or no supervisor training.

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Attachment J-15

GLOBAL ACRONYMNS LIST

ACO	- Administrative Contracting Officer
AF/AT	- Award Fee/Award Term
AFATDR	- Award-Fee/Award-Term Determination Report
ALERT	- Acute Launch Emergency Reliability Tip (NASA version of the GIDEP report)
AOE	- Area of Emphasis
ATF	- Award Term Fee
ATP	- Authorization to Proceed
ASME	- American Society of Mechanical Engineers
ASTM	- American Society of Testing Materials
BPA	- Blanket Purchase Agreement
CAD	- Computer Aided Design
CAS	- Corrective Action System
CBI	- Confidential Business Information
CCB	- Configuration Control Board (also Change Control Board)
CD	- Contractual Data
CDDT	- Count Down Demonstration Test
CDR	- Critical Design Review
CEI	- Contract End Item
CERTRACK	- Certification Tracking System
CEV	- Crew Exploration Vehicle
CFR	- Code of Federal Regulations

GLOBAL ACRONYMNS LIST (Continued)

CIL	- Critical Items List
CLV	- Crew Launch Vehicle
CLVSRP	- Crew Launch Vehicle Safety Review Panel(s)
CM	- Configuration Management
CO	- Contracting Officer
CoF	- Construction of Facilities
CoFR	- Certificate of Flight Readiness
COQ	- Certificate of Qualification
COTR	- Contracting Officer's Technical Representative
CPAF	- Cost Plus Award Fee
CPE	- Change Package Engineers
CPEB	- Chair Performance Evaluation Board
CPR	- Cost Performance Report
CTO PM	- Contract Task Order Performance Monitor
DCAA	- Defense Contract Audit Agency
DCB	- Document Control Board
DCL	- Document Change Log
DCR	- Design Certification Review
DOD	- Department Of Defense
DOT	- Department of Transportation
DPAS	- Defense Priorities and Allocations System
DPD	- Data Procurement Document
DRD	- Data Requirement Document/Description

GLOBAL ACRONYMNS LIST (Continued)

DRFP	- Draft Request for Program Proposal
DRL	- Data Requirements List
ECP	- Engineering Change Proposal
ECR	- Engineering Change Request
ET	- External Tank
EAR	- Export Administration Regulations
FAR	- Federal Acquisition Regulations
FDO	- Fee Determination Official
FMEA	- Failure Mode and Effects Analysis
FRF	- Flight Readiness Firing
FRFP	- Final Request for Proposal
FRR	- Flight Readiness Review
FTE	- Full Time Equivalent
G&A	- General and Administrative
GER	- Government Evaluation Report
GIDEP	- Government Industry Data Exchange Program
HOSC	- Huntsville Operations Support Center
HQ	- Headquarters
IA	- Independent Assurance,-or- Independent Assessment
IDIQ	- Indefinite Delivery Indefinite Quantity
IHOPs	- Inventory of Hazardous Operations
IM	- Information Management
IPL	- Interested Parties List

GLOBAL ACRONYMNS LIST (Continued)

ISS	- International Space Station
IT	- Information Technology
ITAR	- International Traffic in Arms Regulations
JSC	- Johnson Space Center
KSC	- Kennedy Space Center
LS	- Logistics Support
LTIR	- Lost Time Injury Rates
MA	- Management
MMS	- Marshall Management System
MPD	- Marshall Policy Directives
MPG	- Marshall Procedures and Guidelines
MPR	- Marshall Procedural Requirements
MRB	- Material Review Board
MSERP	- Marshall Safety Engineering Review Panel
MSFC	- Marshall Space Flight Center
MSR	- Management Status Review
MWI	- Marshall Work Instruction
NAC	- National Agency Check
NAICS	- North American Industrial Classification
NASA	- National Aeronautics and Space Administration
NCR	- Nonconformance Report
NCCS	- NASA Center Chief of Security
NDE	- Non-destructive Evaluation

GLOBAL ACRONYMNS LIST (Continued)

NEMS	- NASA Equipment Management System
NESS	- NASA Electronic Submission System
NFS	- NASA FAR Supplement
NEQA	- NASA Engineering and Quality Audits
NESC	- NASA Engineering and Safety Center
NFNMS	- NASA Foreign Nationals Management System
NFPA	- National Fire Protection Association
NPD	- NASA Procedural Directive
NPG	- NASA Procedures and Guidelines
NPR	- NASA Procedural Requirements
NRFR	- NASA Request for Request
NRRS	- NASA Records Retention Schedule
NTE	- Not-To-Exceed
OCI	- Organizational Conflict of Interest
OI	- Organization Instruction
OMI	- Operations and Maintenance Instruction
OMRSD	- Operations and Maintenance Requirements Specification Document
ORI	- Operational Readiness Inspection
OSHA	- Occupational Safety and Health Act
PAC	- Problem Assessment Center
PAS	- Problem Assessment System
PCASS	- Program Compliance Assurance Status System
PCH	- Program Critical Hardware

GLOBAL ACRONYMNS LIST (Continued)

PCP	- Program Change Proposal
PDR	- Preliminary Design Review
PDTS	- Procurement Discrepancy Tracking System
PEB	- Performance Evaluation Board
PEBC	- Performance Evaluation Board Chair
PEBR	- Performance Evaluation Board Report
PEP	- Performance Evaluation Plan
PFA	- Preflight Assessment
PIC	- Procurement Information Circular
POC	- Point of Contact
PoP	- Period of Performance
PRA	- Probabilistic Risk Assessment
PRACA	- Problem Reporting and Corrective Action
PRB	- Problem Review Board
PRL	- Page Revision Log
PRR	- Preliminary Requirements Review
PRISMS	- Program Information System Services
PRR	- Preliminary Requirements Review
PWS	- Performance Work Statement
QA	- Quality Assurance
QE	- Quality Engineering
QSDN	- Quality System Deficiency Notice
RCAR	- Recurrence Control Action Request

GLOBAL ACRONYMNS LIST (Continued)

RFP	- Request for Proposal
RSRM	- Reusable Solid Rocket Motor
RVC	- Requirements Verification Compliance
SA	- Software Assurance, Safety
SAT	- Simplified Acquisition Threshold
SCA	- Service Contract Act
SCN	- Specification Change Notice
SCRS	- Safety Concerns Reporting System
SE&I	- Systems Engineering and Integration
SEB	- Source Evaluation Board
SEI	- Software Engineering Institute
SEMO	- Supply and Equipment Management Officer
SHE	- Safety, Health and Environmental
SIC	- Standard Industrial Classification
SHEtrak	- Safety, Health, and Environmental (SHE) Tracking
SMARR	- Safety and Mission Assurance Readiness Review (replaced by SMSR)
SME	- Subject Matter Expert
SMSR	- Safety and Mission Success Review
SPACE	- Stellar Photon Analysis Concept Experiment
SPR	- Software Problem Report
SRB	- Solid Rocket Booster
SRM	- Solid Rocket Motor
S&MA	- Safety and Mission Assurance (a MSFC organization)

GLOBAL ACRONYMNS LIST (Continued)

SRM&QA	- Safety, Reliability, Maintainability and Quality Assurance (indicates function/discipline and not an organization entity)
SRR	- System Requirements Review
SRT	- System Readiness Test
SSME	- Space Shuttle Main Engine
SSP	- Space Shuttle Program
SSWP	- Supervisors Safety Web Page
TRR	- Test Readiness Review
WBS	- Work Breakdown Structure
WYE	- Work Year Equivalent