

#1a

<b>SOLICITATION, OFFER AND AWARD</b>		1. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 700) →		RATING DO-C9	PAGE OF PAGES 1   436
2. CONTRACT NUMBER NAS1303034	3. SOLICITATION NUMBER 13SSC-O-02-38	4. TYPE OF SOLICITATION <input type="checkbox"/> SEALED BID (IFB) <input checked="" type="checkbox"/> NEGOTIATED (RFP)		5. DATE ISSUED 02/07/03	6. REQUISITION/PURCHASE NO. J2003042, Basic (1F)
7. ISSUED BY NASA Acquisition Management Office John C. Stennis Space Center Attn: BA31/James D. Huk II Stennis Space Center, MS 39529-6000			CODE BA30	8. ADDRESS OFFER TO (If other than Item 7) Same as Item 7	

NOTE: In sealed bid solicitations "offer" and "Offeror" mean "bid" and "bidder"

**SOLICITATION**

9. Sealed offers in original and copies for furnishing the supplies or services in the Schedule will be received at the place specified in Item 7 until 3:00 PM (Local Time) Refer to L-I-12 & L-II-2.

CAUTION — LATE Submissions, Modifications, and Withdrawals: See Section L, Provision 52.215-1. All offers are subject to all terms and conditions contained in this solicitation.

10. For Information → Call:	A. NAME James D. Huk II	B. TELEPHONE (NO COLLECT CALLS) AREA CODE: 228, NUMBER: 688-1045, EXT.:	C. E-MAIL ADDRESS James.D.Huk@nasa.gov
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**OFFER (Must be fully completed by Offeror)**

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

12. In compliance with the above, the undersigned agrees, if this offer is accepted within \_\_\_\_\_ calendar days (180 calendar days unless a different period is inserted by the Offeror) from the date for receipt of offers specified above, to furnish any or all items upon which prices are offered at the price set opposite each item, delivered at the designated point(s), within the time specified in the schedule.

13. DISCOUNT FOR PROMPT PAYMENT (See Section I, Clause No. 52.232-8) →	10 CALENDAR DAYS %	20 CALENDAR DAYS %	30 CALENDAR DAYS %	CALENDAR DAYS %
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14. ACKNOWLEDGMENT OF AMENDMENTS (The Offeror acknowledges receipt of amendments to the SOLICITATION for Offerors and related documents numbered and dated):	AMENDMENT NO.	DATE	AMENDMENT NO.	DATE
	Amendment 1	28 Feb 03		
	Amendment 2	14 Mar 03		

15A. NAME AND ADDRESS OF OFFEROR Sverdrup Technology, Inc. 600 William Northern Blvd. P.O. Box 884 Tullahoma, TN 37388	CODE 07486	FACILITY	16. NAME AND TITLE OF PERSON AUTHORIZED TO SIGN OFFER (Type or print) Rogers F. Starr, President
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15B. TELEPHONE NUMBER AREA CODE: 931, NUMBER: 455.6400, EXT.: 306	<input type="checkbox"/> 15C. CHECK IF REMITTANCE ADDRESS IS DIFFERENT FROM ABOVE - ENTER SUCH ADDRESS IN SCHEDULE.	17. SIGNATURE <i>Rogers F. Starr</i>	18. OFFER DATE 24 Mar 03
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**AWARD (To be completed by Government)**

19. ACCEPTED AS TO ITEMS NUMBERED *	20. AMOUNT \$126,060,424	21. ACCOUNTING AND APPROPRIATION **
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22. AUTHORITY FOR USING OTHER THAN FULL AND OPEN COMPETITION: <input type="checkbox"/> 10 U.S.C. 2304(c) ( ) <input type="checkbox"/> 41 U.S.C. 253(c) ( )	23. SUBMIT INVOICES TO ADDRESS SHOWN IN (4 copies unless otherwise specified) → ITEM G.2
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24. ADMINISTERED BY (If other than Item 7) CODE	25. PAYMENT WILL BE MADE BY NASA John C. Stennis Space Center Financial Management Division/BA22 Stennis Space Center, MS 39529-6000
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26. NAME OF CONTRACTING OFFICER (Type or print) James D. Huk II	27. UNITED STATES OF AMERICA <i>(Signature of Contracting Officer)</i>	28. AWARD DATE 5/15/03
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IMPORTANT -- Award will be made on this Form, or on Standard Form 26, or by other authorized official written notice.

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STANDARD FORM 33 (Rev. 9-97)  
Prescribed by GSA - FAR (48 CFR) 53.214(c)

\* Offerors proposal dated 24 Mar 03 is hereby incorporated and made part of this contract.

\*\* 001-957-10-00-00-00-64-2003-00-00-54-PTRS-00-2540 400000

**ACRONYMS AND ABBREVIATIONS**

ACH	Automated Clearing House
ADP	Automated Data Processing
ADPE	Automated Data Processing Equipment
ANSI	American National Standards Institute (U.S. member body of ISO)
ASME	American Society of Mechanical Engineers
ASNT	American Society for Non-Destructive Testing
BBS	Bulletin Board System
BCWP	Budgeted Cost of Work Performed
BCWS	Budgeted Cost of Work Scheduled
CAD	Computer Aided Drafting
CAR	Corrective Action Requests
CASB	Cost Accounting Standards Board
CAS	Cost Accounting Standards
CBA	Collective Bargaining Agreement
CCB	Configuration Control Board
CCDS	Centers for the Commercial Development of Space
CCSM	Center Computer Security Manager
CCTV	Closed Circuit Television
CDR	Critical Design Review
CEF	Central Engineering Files
CFC	Chlorofluorocarbon
CFD	Computational Fluid Dynamics
CFR	Code of Federal Regulations
CFS	Critical Facility Systems
CIP	Continuous Improvement Process
CLIN	Contract Line Item Number
CM	Corrective Maintenance
CMMS	Computerized Maintenance Management System
CoF/Coff	Construction of Facilities
CO	Contracting Officer
COC	Certificate of Completion
COD	Center Operations Directorate
COTR	Contracting Officer's Technical Representative
CP	Cost Plus
CPAF	Cost Plus Award Fee
CST	Central Standard Time
CTF	Component Test Facility
CWI	Common Work Instruction
DACS	Data Acquisition Control System
DAF	Data Acquisition Facility
DAS	Data Acquisition System
DCAA	Defense Contract Audit Agency
DCMC	Defense Contract Management Command
DD	Department of Defense
DDMS	Design and Data Management System
DDT&E	Design, Development, Test & Evaluation
DIR	Document Information Record

DOC	Department of Commerce
DOD	Department of Defense
DOI	Department of Interior
DOL	Department of Labor
DOT	Department of Transportation
DPD	Data Procurement Document
DPI	Data Processing Information
DR	Data Requirements
DRD	Data Requirement Document
DRL	Data Requirements List
DTF	Diagnostic Testbed Facility
DW&VR	Deviation, Waiver, and Variance Request
ECR	Engineering Change Request
EEO	Equal Employment Opportunity
EMA	Electro Mechanical Actuators
EMI	Engineering Modification Instruction
EO	Executive Order
EPA	Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-Know Act
EPSCOR	Experimental Program for Stimulating Competitive Research
ERD	Environmental Resources Document
EVS	Enumeration Verification System
FAC	Federal Acquisition Circular
FAMR	Facility Assignment and Maintenance Responsibility
FAP	Facility Activation Procedure
FAR	Federal Acquisition Regulation
FAS	Funds Availability System
FDO	Fee Determination Official
FMO	Financial Management Officer
FOB	Free on Board
FOD	Foreign Object Damage/Foreign Object & Debris
FOP	Facility Operation Procedure
FOS	Facility Operating Services
FOSC	Facility Operating Services Contract
FR	Federal Regulation
FRDD	Federal Resource Decision Document
FRS	Financial Reporting System
FRT	Firing Readiness Test
FSR	Facility Service Request
FY	Fiscal Year
G&A	General and Administrative
GAO	General Accounting Office
GBL	Government Bill of Lading
GFP	Government-Furnished Property
GH2	Gaseous Hydrogen
GHe	Gaseous Helium
GN2	Gaseous Nitrogen
GO2	Gaseous Oxygen
GPM	Gallons per Minute

GPO	Government Printing Office
GSA	General Service Administration
GSE	Ground Support Equipment
HAZMAT	Hazardous Materials
He	Helium
HHFF	High Heat Flux Facility
HPA	High Pressure Air
HPG	High Pressure Gas
HPIW	High Pressure Industrial Water
HS	High Speed
HTPB	Hydroxyl Terminated Polybutadine
HUBZone	Historically Underutilized Business Zone
H2O2	Hydrogen Peroxide
IAGP	Installation Accountable Government Property
IFMP	Integrated Financial Management Program
IR	Infrared
ISO	International Organization for Standardization
IT	Information Technology
JPx	Jet Propellant
kV	Thousand Volt
kVA	Thousand Volt Amperes
LAN	Local Area Network
LOE	Level-of-Effort
LH2	Liquid Hydrogen
LI	Line Item
LN2	Liquid Nitrogen
LO2	Liquid Oxygen
LOX/GOX	Liquid Oxygen/Gaseous Oxygen
LS	Low Speed
MAS	Management Accounting System
MASS	Management Accounting and Statusing System
MAXIMO	Computerized Maintenance Management System Software (COTS)
MDEQ	Mississippi Department of Environmental Quality
MI	Management Instruction
MIC	Management Information Center
MIP	Mandatory Inspection Point
MM	Management Manual
MOV	Manually Operated Valve
MPD	Marshall Program Directive
MPG	Marshall Program Guide
MR	Material Request
MSDS	Material Safety Data Sheets
MSFC	Marshall Space Flight Center
MTTC	Mississippi Technology Transfer Center
MV	Millivolts
MWI	Marshall Work Instruction
NAFIS	NASA Accounting and Financial Information System
NAICS	North American Industry Classification System
NASA	National Aeronautics and Space Administration

NDE	Non-Destructive Examination
NDR	NASA Discrepancy Report
NDT/E	Non-Destructive Test/Evaluation
NEMS	NASA Equipment Management System
NFS	NASA FAR Supplement
NHB	NASA Handbook
NIEMS	NASA Institutional Environmental Management System
NIPS	NASA Interactive Planning System
NISPOM	National Industrial Security Program Operating Manual
NIST	National Institute of Standards and Technology
NLRA	National Labor Relations Agency
NMI	NASA Management Instruction
NPD	NASA Policy Directive
NPDES	National Pollutant Discharge Elimination System
NPDMS	NASA Property Disposal Management System
NPG	NASA Procedures and Guidelines
NPPS	NASA Personnel and Payroll System
NRP	National Resource Protection
NRPTA	National Rocket Propulsion Test Alliance
NRRS	NASA Records Retention Schedule
NSMS	NASA Supply Management System
OACT	Office of Advanced Concepts and Technology
OBS	Organizational Breakdown Structure
ODC	Other Direct Cost
OEM	Original Equipment Manufacturer
OI	Operating Instructions
O&M	Operation & Maintenance
OMB	Office of Management & Budget
OSF	Office of Space Flight
OPR	Office of Primary Responsibility
OSHA	Occupational Safety and Health Administration
PA	Public Affairs
PC	Personal Computer
PDF	Portable Document Format
PEB	Performance Evaluation Board
PEP	Preliminary Evaluation Program
PI	Planned Inspections
PL	Public Law
PLC	Programmable Logic controllers
PMS	Performance Measurement System
PMTTP	Procurement Management Technology Program
POP	Program Operating Plan
PPA	Pollution Prevention Act
PR	Procurement Regulation
PRD	Project Requirements Document
PSCS	Program Support Computer System
Psi	Pounds per Square Inch
PSIG	Pounds per Square Inch Gauge
PSM	Process Safety Management

PTA	Propulsion Test Article
PTO	Propulsion Test Office
PWS	Performance Work Statement
QASP	Quality Assurance Surveillance Plan
QFD	Quality Function Deployment
QMS	Quality Management System
QTPS	Quality Test Preparation Sheet
R&D	Research & Development
RAM	Random Access Memory
RFP	Request for Proposal
ROM	Rough Order of Magnitude
RPTMB	Rocket Propulsion Test Management Board
RPx	Rocket Propellant
RR	Record Review
RTD	Resistance Temperature Device
S&MA	Safety and Mission Assurance
SB	Small Business
SBA	Small Business Administration
SBIR	Small Business Innovative Research
SCA	Service Contract Act
SCWI	Stennis Common Work Instruction
SDB	Small Disadvantaged Business
SDNS	Stennis Document Numbering System
SE	Support Equipment
SEB	Source Evaluation Board
SEMO	Supply and Equipment Management Officer
SF	Standard Form
SGR	Statement of General Requirements
SIC	Standard Industrial Classification
SMI	Stennis Management Instruction
SNA	Systems Network Architecture
SNI	Systems Network Integration
SOI	Stennis Operating Instruction
SOMRD	Systems Operations Maintenance Responsibilities Database
SOP	Standard Operating Procedures
SORD	Site-wide Operational & Repair Documentation
SOV	Solenoid Operated Valve
SOW	Statement of Work
SPD	Stennis Policy Directives
SPG	Stennis Procedures and Guidelines
SR&QA	Safety, Reliability & Quality Assurance
SSA	Source Selection Authority
SSC	Stennis Space Center
SSC HB	Stennis Space Center Handbook
SSLP	Stennis System Level Procedure
SSME	Space Shuttle Main Engine
STCS	Science and Technology Computer System
STL	Science and Technology Laboratory
STE	Special Test Equipment

STME	Space Transportation Main Engine
STOP	Safety Training Observation Program
SWI	Stennis Work Instruction
SWR	Stennis Work Request
TAIR	Test and Inspection Records
TALC/LD	Time Attendance Labor Collection/Labor Distribution
TBD	To Be Determined
TBDC	To Be Determined Contractor
TBDG	To Be Determined Government
TBN	To Be Negotiated
TCC	Test Control Center
TCRS	Training and Certification Records System
TCP	Test and Checkout Procedure
TCP	Total Compensation Plan
TD	Technical Document
TD/COD	Transportation Directorate/Center Operations Directorate (MSFC)
TEA/TEB	Triethylaluminum-triethylborane
TechDoc	Technical Documentation System
TFCS	Treasury Financial Communications System
TIMS	Telecommunications Information Management System
TIN	Taxpayer Identification Number
TMR	Technical Management Representative
TOC	Test Operations Contract
TOMS	Telecommunications Operation and Management
TPS	Test Preparation Sheet
TQM	Total Quality Management
TRL	Technical Reference Library
TRR	Test Readiness Review
TSC	Technical Services Contractor
TSP	Total Suspended Particulate
TTSC	Test and Technical Services Contract
TVC	Thrust Vector Control
UHP	Ultra High Pressure
USC	United States Code
USGS	United States Geological Survey
UPI	Unplanned Inspections
UPS	Uninterruptible Power Source
VBA	Visual Basic for Applications
VCC	Validated Customer Complaints
Vdc	Volts dc
ViTS	Video Teleconference System
VMS	Virtual Memory System
VPP	Voluntary Protection Program
WATS	Work Authorization Tracking System
WBS	Work Breakdown Structure
WO	Work Order
WOSB	Women Owned Small Business

**PART I – THE SCHEDULE**

**SECTION B**

**SUPPLIES OR SERVICES AND PRICE/COST**

**SUPPLIES OR SERVICES AND PRICE/COST**

**B.1 SUPPLIES AND/OR SERVICES TO BE FURNISHED**

- (a) The Contractor shall provide all resources (except as may be expressly stated in this contract as furnished by the Government) necessary to provide Test Operations Services at the John C. Stennis Space Center (SSC) and the George C. Marshall Space Flight Center (MSFC) in support of the National Aeronautics and Space Administration (NASA) in accordance with the provisions of the Schedule Article C.1, Scope of Work and Attachment J-1, Performance Work Statement.
- (b) General Information: This is a performance based Cost-Plus-Award-Fee contract.
- (c) Separately Priced Options: Pursuant to Clause 52.217-9, Option to Extend the Term of the Contract, the Contractor shall provide all resources (except as may be expressly stated in this contract as furnished by the Government) necessary to furnish the services described under Option 1 and Option 2, in accordance with Section F, Article F.2.

(End of Clause)

**B.2 COST-PLUS PERFORMANCE/AWARD FEE**

- (a) The Contractor shall provide Test Operations Support Services in accordance with Schedule Article C.1, Scope of Work and Attachment J-1, Performance Work Statement, under a cost-plus/award fee type arrangement. The estimated cost and fee is set forth in Table B-2A and B-2B below:

Table B-2A SSC Estimated Cost and Fee				
<b>Contract Line Item No. (CLIN)</b>	<b>Description</b>	<b>Cost</b>	<b>Fee</b>	<b>Total</b>
001A	SSC Test Operation Support Services, IAW Attachment J-1, for the base period of 08/01/03 through 07/31/05	31,531,686	2,364,877	33,896,563
001B	Option Period 1, Continuation of 001A For the period of 08/01/05 through 07/31/07	31,587,119	2,369,035	33,956,154
001C	Option Period 2, Continuation of 001A For the period of 08/01/07 through 07/31/09	32,245,922	2,418,445	34,664,367

Table B-2B MSFC Estimated Cost and Fee				
<b>Contract Line Item No. (CLIN)</b>	<b>Description</b>	<b>Cost</b>	<b>Fee</b>	<b>Total</b>
002A	MSFC Test Operation Support Services, IAW Attachment J-1, for the period of 08/01/03 through 07/31/05	7,026,615	526,997	7,553,612
002B	Option Period 1, Continuation of 002A For the period of 08/01/05 through 07/31/07	7,305,133	547,885	7,853,018
002C	Option Period 2, Continuation of 002A For the period of 08/01/07 through 07/31/09	7,569,032	567,678	8,136,710

- (b) The amount of fee earned by the Contractor under CLINS 001A through 001C and 002A through 002C above shall be determined in accordance with Attachment J-3, TOC Award Fee Evaluation Plan. The amount of available and earned fee, by evaluation period, is recorded in Attachment IV to subject plan.
- (c) The government may exercise the priced option periods, CLINS 001B through 001C and 002B through 002C above, in accordance with Article F-2, Period of Performance, and FAR 52.217-9.

(d) A Government fiscal year breakout of the cost and fee is summarized in Table B-2C through B-2E below:

Table B-2C		Basic Total Estimated Cost and Fee		
<b>Contract Line Item No. (CLIN)</b>	<b>Description</b>	<b>Cost</b>	<b>Fee</b>	<b>Total</b>
001A & 002A	Test Operation Support Services, IAW Attachment J-1, for the period of 08/01/03 through 07/31/05	38,558,301	2,891,874	41,450,175

Table B-2D		Option Period 1 Total Estimated Cost and Fee		
<b>Contract Line Item No. (CLIN)</b>	<b>Description</b>	<b>Cost</b>	<b>Fee</b>	<b>Total</b>
001B & 002B	Test Operation Support Services, IAW Attachment J-1, for the period of 08/01/05 through 07/31/07	38,892,252	2,916,920	41,809,172

Table B-2E		Option Period 2 Total Estimated Cost and Fee		
<b>Contract Line Item No. (CLIN)</b>	<b>Description</b>	<b>Cost</b>	<b>Fee</b>	<b>Total</b>
001C & 002C	Test Operation Support Services, IAW Attachment J-1, for the period of 08/01/07 through 07/31/09	39,814,954	2,986,123	42,801,077

**B.3 PHASE IN PERIOD**

The Contractor shall provide Test Operations Phase In Services in accordance with Attachment J-1, Performance Work Statement, under a cost-plus/award fee type arrangement. The estimated cost and fee is set forth in Tables B-3A and B-3B below:

Table B-3A		Contract Phase In Period Estimated Cost and Fee		
<b>Contract Line Item No. (CLIN)</b>	<b>Description</b>	<b>Cost</b>	<b>Fee</b>	<b>Total</b>
001A	Phase In Period for Test Operation Support Services, IAW Attachment J-1, for the period of 06/16/03 through 07/31/03	175,000	0	175,000



**B.6 SPECIAL COST PROVISIONS**

Without otherwise affecting the applicability of the cost principles set forth in FAR Part 31 and pursuant to the terms of the contract clause entitled “FAR 52.216-7, Allowable Cost and Payment,” the Contractor shall be reimbursed for such actual and allowable expenditures incurred in the performance of work required by this contract as may be approved by the Contracting Officer subject to the following limitations and provisions:

(a) Exempt Labor Rates

The Contractor shall inform the Contracting Officer of all proposed changes in Labor rates for Exempt Personnel which may result in an increased cost to the contract as soon as practicable but, in any event, prior to such changes being implemented. Failure to comply with the terms of this clause may result in the disallowance of costs.

(b) Fringe Benefits

The Contractor shall inform the Contracting Officer of all proposed changes in fringe benefits which may result in an increased cost to the contract as soon as practicable but, in any event, prior to such changes being implemented. Fringe benefits include, but are not limited to, such items as health insurance, life insurance, pension plans, retiree health care, savings plans, bonus plans, education assistance, and leave policies. Failure to comply with the terms of this clause may result in the disallowance of costs.

(c) Bonuses to Hourly Employees

As a result of paying “bonuses” to hourly employees, the Contractor is required under 29 CFR Section 778.208 of the Fair Labor Standards Act to recalculate base rates for purposes of determining overtime pay for the period covered by the bonus payment. This will result in an additional one time, retroactive payment for overtime worked during the period.

(d) Transfer of Accrued Benefits

1. The successful Offeror shall accept transfer of accrued sick leave hours of personnel hired from the incumbent Contractor at both SSC and MSFC without a break in service in excess of 60 days from the predecessor contract. Additionally, the successor offeror shall recognize the accrued vacation hours, earned through seniority, of personnel hired from the incumbent contractor without a break in service in excess of 60 days from the predecessor contract.
2. Upon conclusion of this contract the successful offeror shall transfer accrued vacation and sick leave hours of personnel hired by successor contractor.

(e) Premiums for Scheduled Overtime

Pursuant to the contract clause entitled FAR 52.222-2, "Payment for Overtime Premiums," the amount of overtime premium authorized shall not exceed the amount specified below for the indicated period.

<u>Amount</u>	<u>Period</u>
\$ <u>TBDG</u>	08/01/03 – 07/31/04
\$ <u>TBDG</u>	08/01/04 – 07/31/05
\$ <u>TBDG</u>	08/01/05 – 07/31/06
\$ <u>TBDG</u>	08/01/06 – 07/31/07
\$ <u>TBDG</u>	08/01/07 – 07/31/08
\$ <u>TBDG</u>	08/01/08 – 07/31/09

(f) Severance Pay

Severance pay reimbursement shall be in accordance with the provisions of FAR Part 31.205-6(g). However, in no event shall the Government reimburse the Contractor for the cost of severance pay for any individual Contractor employee who voluntarily elects to stay in place and work for a succeeding Contractor. This provision shall apply to any extension of this contract.

(g) Relocation Costs

Reimbursement for relocation costs shall be in accordance with the provisions of FAR Part 31.205-35. It is mutually agreed that upon expiration or termination of this contract, the Contractor shall not be entitled to reimbursement under this contract for cost of relocating employees to their "home" site or any other gaining contracting activity. No relocation costs will be reimbursable under this contract for employees whose residence at time of hiring was within a sixty-(60) mile radius of the John C. Stennis Space Center or the George C. Marshall Space Flight Center.

(h) Travel Costs

The Contractor shall be reimbursed for reasonable and allowable lodging and subsistence costs incurred for official travel only to the extent that they do not exceed the maximum rates authorized by the Federal Travel Regulations (FTR). Travel shall be by direct air tourist/economy class or private vehicle. Reimbursement for travel costs shall be in accordance with the provisions of FAR 31.205-46 and the Contractor's travel policies and procedures.

(i) Vehicle Costs

General-purpose vehicle cost shall not exceed GSA lease amounts.

(j) Government Property

(1) Installation Accountable Government Property (IAGP)

The Government will make available IAGP identified in Attachment J-10, List of Government Furnished Property, with class exceptions as identified in Section G, Article G-6.

(2) The estimated dollar value of IAGP Attachment J-10, List 2 – IAGP (Class Exceptions)

	<u>Value of Equipment</u>	<u>Repair Value</u>	<u>Replacement Value</u>
Contract Year 1	\$ <u>TBDC</u>	\$ <u>TBDC</u>	\$ <u>TBDC</u>
Contract Year 2	\$ <u>TBDC</u>	\$ <u>TBDC</u>	\$ <u>TBDC</u>
Contract Year 3	\$ <u>TBDC</u>	\$ <u>TBDC</u>	\$ <u>TBDC</u>
Contract Year 4	\$ <u>TBDC</u>	\$ <u>TBDC</u>	\$ <u>TBDC</u>
Contract Year 5	\$ <u>TBDC</u>	\$ <u>TBDC</u>	\$ <u>TBDC</u>
Contract Year 6	\$ <u>TBDC</u>	\$ <u>TBDC</u>	\$ <u>TBDC</u>
Total	\$ <u>TBDC</u>	\$ <u>TBDC</u>	\$ <u>TBDC</u>

(k) Provisional Billing Rates

(1) Provisional billing rates for indirect cost pools shall be set at the discretion of the Contracting Officer based upon proposals from the Contractor and following review by Government auditors. The provisional billing rates for G&A, Overhead, and Other Indirect Rates (by Contractor calendar year) are:

Year	G&A	Other Indirect	Overhead
2003			
2004			
2005			
2006			
2007			
2008			
2009			

(2) To prevent substantial over or under payment, the provisional billing rates may, at the discretion of the Contracting Officer, be revised, either retroactively or prospectively, and such revision shall be set forth in a modification to this contract.

**B.7 LIMITATION OF CONTRACTOR COMMITMENT - GOVERNMENT-DIRECTED COST (MSFC ONLY)**

(a) In performing the services set forth in Attachment J-1 Performance Work Statement, the Contractor may be required to provide materials/vendor services.

(1) Materials/vendor services are identified in and required by individual TPS's. The estimated costs for materials/vendor services for each contract period are:

**Period of Performance**

Base Period	\$200,000
Option I	\$200,000
Option II	\$200,000

(2) If at any time during the performance of the contract the amounts necessary to perform the work would increase the estimates set forth above, the Contractor shall notify the Contracting Officer and furnish estimates of the amounts required. The Government may, at its option, change the dollar limitations. Failure to agree to any adjustment shall be a dispute concerning a question of fact within the meaning of the clause of this contract entitled "*Disputes*."

[END OF SECTION]

**PART I – THE SCHEDULE**

**SECTION C**

**DESCRIPTION/SPECIFICATION/WORK STATEMENT**

**DESCRIPTION/SPECIFICATIONS/STATEMENT OF WORK****C.1 Scope Of Work**

- (a) The Contractor shall furnish the necessary management, labor, facilities, materials, and equipment (except as specified to be furnished by the Government) and do all things required to provide Test Operations Services for the George C. Marshall Space Flight Center, AL. and the John C. Stennis Space Center, MS as expressly provided in Sections A through J, inclusive, and in the Performance Work Statements (Attachment J-1), attached hereto and hereby made a part of this contract.
- (b) The Work Statement is performance-based; however, the Contractor's obligations may include resolution of unusual or emergency situations that may occur from time to time throughout the period of performance.
- (c) The Government will authorize work by using work requests in accordance with NASA/SSC Common Work Instruction SCWI -5100-0001, or through the MSFC Work Authorization Tracking System (WATS) in accordance with NASA/MSFC Test Preparation Sheet Instructions, TD70-003, and Test Procedures TD70 and TD70-004. These services will be considered within the general scope of the contract, and will not constitute nor be construed as a change within the meaning of the clause of this contract entitled "Changes—Cost Reimbursement—Alternate II". However, if the Contractor considers any written direction by the Government through work requests to be outside the scope of contractual obligation, the Contractor, before performing any effort pursuant to such Government direction, shall refer such questions to the Contracting Officer for resolution.
- (d) Support Services at SSC are provided by the government through the Facility Operating Services Contract (FOSC), the Technical Service Contract (TSC), and ODIN Contract.
  - 1. FOSC provides plant engineering and construction services, engineering documentation and archival services, pressure system management, utility control systems, fuel supply systems, fluid component refurbishment, non-destructive engineering/inspection and test, machining services, OSHA training, roads and grounds, food services, fire and medical services, procurement services, shipping, receiving and warehousing.
  - 2. TSC provides measurement standards and calibration services, gas and material analysis, environment lab services and information technology support.
  - 3. ODIN provides computer desktop services.

(End of Clause)

**C.2 Work Authorization**

- (a) For Stennis Space Center, a Work Order, hereafter called a Stennis Work Request (SWR), is an order to the Contractor within the scope of functions described in the Performance Work Statement and as described in the SWR defining a specific job or task to be performed by the Contractor. It will convey information necessary to describe the activity with regard to technical contents, milestone schedule requirements, and available funding. The SWR will be issued in accordance with SSC Work Ordering System (Reference SCWI –5100-0001). In no event shall the work required hereunder exceed the estimated cost of this contract established by Section B-2.
  
- (b) For Marshall Space Flight Center, a Work Order, hereafter called a Test Preparation Sheet (TPS), is an order to the Contractor within the scope of functions described in the Performance Work Statement and as described in the TPS defining a specific job or task to be performed by the Contractor. It will convey specific technical information necessary to complete the activity. The TPS contains individual work instructions to be completed for each project or a task. All work is governed by a TPS/QTPS or test procedure. The TPS/QTPS and test procedure are issued in accordance with MSFC Test Preparation Sheet Instruction, TD70-003, and Test Procedure Instruction TD70-004. In no event shall the work required hereunder exceed the estimated cost of this contract established by Section B-2.

[END OF SECTION]

**PART I – THE SCHEDULE**  
**SECTION D**  
**PACKAGING AND MARKING**

## PACKAGING AND MARKING

### **D.1 LISTING OF SECTION D CLAUSES INCORPORATED BY REFERENCE**

The following clauses are incorporated by reference in accordance with Federal Acquisition Regulation (FAR) 52.252-2 CLAUSES INCORPORATED BY REFERENCE (FEB 1998):

This solicitation incorporates one or more solicitation provisions 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. The Offeror is cautioned that the listed provisions may include blocks that must be completed by the Offeror and submitted with its quotation or offer. In lieu of submitting full text of those provisions, the Offeror may identify the provision by paragraph identifier and provide the appropriate information with its quotation or offer. Also, the full text of a solicitation provision may be accessed electronically at these address(es):

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

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

(1852.211-70) PACKAGING, HANDLING, AND TRANSPORTATION (JUNE 2000)

(End of Clause)

### **D.2 PACKAGING AND MARKING**

- (a) The Contractor shall pack and mark all hardware deliverables under this contract in accordance with the provisions of NASA Procedures and Guidelines (NPG) 6000.1, Requirements for Packaging, Handling, and Transportation...Equipment and Associated Components.
- (b) Inbound shipments to the Contractor of contractor-acquired equipment and parts from all sources for the account of the Government shall be consigned to and marked as follows:

Transportation Officer, NASA  
 TOC Contractor NAS13 \_\_\_\_\_  
 John C. Stennis Space Center  
 Stennis Space Center, MS 39529-6000  
 Mark for: \* \_\_\_\_\_

Transportation Officer, NASA  
 TOC Contractor NAS13 \_\_\_\_\_  
 George C. Marshall Space Flight Center  
 Marshall Space Flight Center, AL 35812  
 Mark for: \* \_\_\_\_\_

- (c) The Contractor shall pack potentially hazardous items in accordance with paragraph 2.5 of NPG 6000.1.
- (d) The Contractor shall develop packaging, handling, and transportation records, if required, from engineering and packaging data. The Contracting Officer Technical Representative (COTR) or the alternate COTR is the approving official of the records and special packaging data under paragraphs 2.2 and 2.3 of NPG 6000.1.
- (e) The Contractor's packaging specifications or procedures may be utilized if they are:
  - (i) not in conflict with NPG 6000.1 and (ii) approved in writing by the Contracting Officer. In any conflict between NASA and the Contractor specifications or procedures, NPG 6000.1 shall take precedence.
- (f) The Contractor shall place identical requirements on all subcontracts.

\*Contractor to insert the name, code and address of the consignee and, if appropriate, identifying contract or ordering number.

(End of Clause)

[END OF SECTION]

**PART I – THE SCHEDULE**  
**SECTION E**  
**INSPECTION AND ACCEPTANCE**

**INSPECTION AND ACCEPTANCE**

**E.1 LISTING OF SECTION E CLAUSES INCORPORATED BY REFERENCE**

The following clauses are incorporated by reference in accordance with Federal Acquisition Regulation (FAR) 52.252-2 CLAUSES INCORPORATED BY REFERENCE (FEB 1998):

This solicitation incorporates one or more solicitation provisions 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. The Offeror is cautioned that the listed provisions may include blocks that must be completed by the Offeror and submitted with its quotation or offer. In lieu of submitting full text of those provisions, the Offeror may identify the provision by paragraph identifier and provide the appropriate information with its quotation or offer. Also, the full text of a solicitation provision may be accessed electronically at these address(es):

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

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

- (52.246-3) INSPECTION OF SUPPLIES – COST REIMBURSEMENT (MAY 2001)
- (52.246-5) INSPECTION OF SERVICES – COST REIMBURSEMENT (APR 1984)
- (52.246-16) RESPONSIBILITY FOR SUPPLIES (APR 1984)
- (1852.246-72) MATERIAL INSPECTION AND RECEIVING REPORT (JUNE 1995)  
(Fill-in 3 copies and 2 copies)

(End of Clause)

**E.2 GOVERNMENT CONTRACT QUALITY ASSURANCE FUNCTIONS  
(NASA FAR SUPPLEMENT 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.

<b>Item</b>	<b>Quality Assurance Function</b>	<b>Location</b>
All Services	Final Inspection	SSC/MSFC
All Services	Acceptance	SSC/MSFC

(End of Clause)

**E.3 SURVEILLANCE METHODS**

The Government may use a wide variety of surveillance methods to evaluate the Contractor's performance. The methods of surveillance that may be used, including but not limited to, are:

1. Record Review (RR). Plans, Reports and Schedules submitted by the Contractor will be reviewed for content to confirm that contractual requirements are planned,

scheduled and reported as properly completed. The Contractor is also responsible for accurately reporting work that was either rescheduled or not completed.

2. Planned Inspections (PI). The Performance Monitors (PM) shall establish a predetermined plan for inspecting all or part of the work. Determination of a sample size is at the discretion of the Government. The planned approach of inspecting for performance may or may not be shared with the Contractor.
3. Unplanned Inspection (UPI). This method is an unplanned inspection, usually carried out in conjunction with inspections of other Contract Requirements or in an impromptu fashion. Unscheduled inspections may be a supplement to other methods of surveillance or could cover a Contract Requirement if it is a relatively non-critical requirement and does not require inspection immediately upon completion.
4. Validated Customer Complaints (VCC). This method consists of customers observing deficiencies in the services they expect to receive and reporting these deficiencies to the PM using a predetermined procedure. All reported potential deficiencies will be examined at the site by the PM within a reasonable time.

(End of Clause)

#### **E.4 QUALITY MANAGEMENT SYSTEM/ANSI/ISO/ASQC Q9001-2000**

The Contractor shall maintain compliance to the NASA Quality Management System (ISO Standard 9001:2000) and SSC Environmental Management System (ISO Standard 14001). The SSC & MSFC ISO Registration scope, propulsion test services and commercial remote sensing, includes the Contractor. The Contractor shall develop and maintain appropriate work instructions necessary to implement the SSC & MSFC Level I and Level II ISO documents. Processes requiring work instructions include: engineering, purchasing, calibration, environmental laboratory, software development, computer operations, training, and propulsion test operations such as the high pressure industrial water facility, gas generation facility, and cryogenics. The Contractor shall also provide personnel to support the internal audit processes.

(End of Clause)

#### **E.5 QUALITY ASSURANCE SURVEILLANCE PLAN**

A Quality Assurance Surveillance Plan (QASP) will be developed and implemented by the Contracting Officer Technical Representative (COTR) as a part of the contract administration and monitoring activities conducted to assure that the Government receives products and services that conform to contract requirements.

(End of Clause)

[END OF SECTION]

**PART I – THE SCHEDULE**  
**SECTION F**  
**DELIVERIES OR PERFORMANCE**

**DELIVERIES OR PERFORMANCE**

**F.1 LISTING OF SECTION F CLAUSES INCORPORATED BY REFERENCE**

The following clauses are hereby incorporated by reference in accordance with FAR 52.252-2 CLAUSES INCORPORATED BY REFERENCE (FEB 1998):

This solicitation incorporates one or more solicitation provisions 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. The Offeror is cautioned that the listed provisions may include blocks that must be completed by the Offeror and submitted with its quotation or offer. In lieu of submitting full text of those provisions, the Offeror may identify the provision by paragraph identifier and provide the appropriate information with its quotation or offer. Also, the full text of a solicitation provision may be accessed electronically at these address(es):

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

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

FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1) –

52.242-15 STOP-WORK ORDER (AUG 1989) – ALTERNATE I (APR 1984)

52.247-34 F.O.B. DESTINATION (NOV. 1991)

(End of Clause)

**F.2 PERIOD OF PERFORMANCE**

- A. The initial period of performance of this contract shall be 2 years from August 01, 2003 through July 31, 2005.
- B. The Contractor is incentivized to provide excellent technical operations support services, to include cost control, for SSC and MSFC through the combination of the potential for award fee and the potential of additional option periods. A form similar to the options worksheet located in J-13 may be used prior to exercising any option periods.
- C. If the government elects to exercise its option(s), pursuant to the option provisions of this contract, the period of performance for each option will be as follows:

<b>OPTION</b>	<b>PERIOD OF PERFORMANCE</b>
Option 1	08/01/05 – 07/31/07
Option 2	08/01/07 – 07/31/09

- D. A basic period of performance of two (2) years, and two (2), two (2) year option periods is in the government’s best interest.

**F.3 PLACE OF PERFORMANCE**

The Contractor shall perform the work under this contract at the John C. Stennis Space Center, Mississippi, and the George C. Marshall Space Flight Center, Huntsville, Alabama, and at such other locations as may be approved in writing by the Contracting Officer.

(End of Clause)  
[END OF SECTION]

**PART I – THE SCHEDULE**  
**SECTION G**  
**CONTRACT ADMINISTRATION DATA**

**CONTRACT ADMINISTRATION DATA****G.1 LISTING OF SECTION G CLAUSES INCORPORATED BY REFERENCE**

The following clauses are hereby incorporated by reference in accordance with FAR 52.252-2 CLAUSES INCORPORATED BY REFERENCE (FEB 1998):

This solicitation incorporates one or more solicitation provisions 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. The Offeror is cautioned that the listed provisions may include blocks that must be completed by the Offeror and submitted with its quotation or offer. In lieu of submitting full text of those provisions, the Offeror may identify the provision by paragraph identifier and provide the appropriate information with its quotation or offer. Also, the full text of a solicitation provision may be accessed electronically at these address(es):

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

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

NASA FAR SUPPLEMENT (NFS 48 CFR CHAPTER 18)

1852.242-73 NASA CONTRACTOR FINANCIAL MANAGEMENT REPORTING (JUL 2000)

1852.227-70 NEW TECHNOLOGY (May 2002)

1852.245-70 CONTRACTOR REQUESTS FOR GOVERNMENT OWNED EQUIPMENT (JUL 1997)

1852.245-73 FINANCIAL REPORTING OF NASA PROPERTY IN THE CUSTODY OF CONTRACTORS (AUG 2001)

(End of Clause)

**G.2 SUBMISSION OF VOUCHERS FOR PAYMENT (NFS 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 shall be submitted to:

John C. Stennis Space Center, NASA  
Financial Management Division  
Mail Code BA22  
Stennis Space Center, MS 39529-6000

- (2) For any period that the Defense Contract Audit Agency 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) 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.

DCAA mailing office (for submission of cost vouchers) address (TBD)

- (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) 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:

John C. Stennis Space Center, NASA  
Acquisition Management Office  
Mail Code BA30  
Stennis Space Center, MS 39529-6000

This is the designated billing office for fee vouchers for purposes of the Prompt Payment clause of this contract.

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 DESIGNATION OF NEW TECHNOLOGY REPRESENTATIVE AND PATENT REPRESENTATIVE (NFS 1852.227-72) (JUL 1997)**

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

Title	Office/Address (including zip code)
New Technology Representative	Technology Utilization Officer NASA/John C. Stennis Space Center Mail Code: HA30 Stennis Space Center, MS 39529-6000
Patent Representative	Chief Counsel NASA/John C. Stennis Space Center Mail Code: CA00 Stennis Space Center, MS 39529-6000

- (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. Inquiries 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 Contract (Short Form)”, unless otherwise authorized or directed by the Contracting Officer. The respective responsibilities and authorities of the above-named representatives are set forth in 1852.305-370 of the NASA FAR Supplement.

(End of Clause)

**G.4 RESERVED**

**G.5 INSTALLATION-ACCOUNTABLE GOVERNMENT PROPERTY (NFS 1852.245-71) (JUN 1998) (ALTERNATE I – MAR 1989)**

- (a) The Government property described in the clause at NFS 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 in support of the TOC contract requirements. Under this clause, the Government retains accountability for, and title to, the property, and the Contractor assumes the following user responsibilities:

- (1) Reporting any missing or untagged (meeting the criteria for NEMS control as defined in the series 4000, User’s Guide for Property Custodians) equipment,

transfer, location change, or user change of equipment to the cognizant property custodian.

- (2) Notifying the cognizant property custodian, supervisor, and the Installation Security Officer immediately if theft of Government property is suspected.
  - (3) Ensuring that such equipment and materials are used only in pursuit of this contract. Other uses shall require approval of the Contracting Officer.
  - (4) In a timely manner, identify idle equipment not being actively used in pursuit of approved NASA programs and projects. Ensuring that equipment is turned in to the Property Disposal Officer through the cognizant property custodian when no longer needed. Under no circumstances will an employee throw away Government equipment.
  - (5) At installations with full-time property custodians, assigned users retain all responsibilities including notifying cognizant property custodian of all activity associated with the user's assigned equipment. 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.
  - (6) Store stock materials may only be drawn for use in support of the TOC contract requirements. 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 record keeping, 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 (FMO). 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 NFS 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.
- (3) The contractor shall not utilize the installation's central receiving facility for receipt of Contractor-acquired property. However, the Contractor shall provide listings suitable for establishing accountable records of all such property received, on a quarterly basis, to the Contracting Officer and the Supply and Equipment Management Officer.

(End of Clause)

**G.6 LIST OF INSTALLATION-ACCOUNTABLE PROPERTY AND SERVICES**  
**(NFS 1852.245-77) (JULY 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.
- (b) General and special purpose equipment, including office furniture. (Refer to Article G.7). The Government retains accountability for this property under the clause at 1852.245-71, Installation-Accountable Government Property, regardless of its authorized location.

(1) Property to be provided is listed in Attachment J-10.

- (i) List 1 – IAGP (No Class Exceptions)
- (ii) List 2 – IAGP (Class Exceptions)
- (iii) List 3 – IAGP Facilities

- (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 or duly authorized representative'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 Accountable Government Property (IAGP): [Attachment J-10].
  - (g) Medical treatment of a first-aid nature for Contractor personnel injuries or illnesses sustained during on-site duty.
  - (h) Cafeteria privileges for Contractor employees during normal operating hours.
  - (i) Building maintenance for facilities occupied by Contractor personnel.
  - (j) Moving and hauling for office moves, movement of large equipment, and delivery of supplies.
  - (k) The user responsibilities of the Contractor are defined in paragraph (a) of the clause at 1852.245-71, Installation-Accountable Government Property. They are further defined in the following property management directives and installation supplements to these directives.
    - (1) Series 4200.1, NASA Equipment Management Manual.
    - (2) Series 4200.2, NASA Equipment Management System (NEMS) User's Guide for Property Custodians.
    - (3) Series 4300.1, NASA Personal Property Disposal Manual.
    - (4) Series 4100.1, NASA Materials Inventory Management Manual. SSC will provide the Contractor with all applicable regulations, handbooks, and other materials that may be required.
  - (l) Equipment and class of equipment identified in Attachment J-10, List 2 (Class Exceptions) is subject to Section G, Article G.7 and is provided only to the extent as originally provided to the Contractor for use in performance of this contract.

Additional equipment or replacement of such equipment or class of equipment shall be Contractor furnished.

- (m) Installation services facilities: duplicating and copying, library, official mail services, general use printers.
- (n) Government Bills of Lading (GBL)'s for shipment of Government property located onsite and offsite.
- (o) Disposal Services for excess on-site and off-site Contractor-held/Government-owned property.
- (p) Fuels, oils, lubricants for Government vehicle and equipment operation.

(End of Clause)

**G.7 REPAIR OR REPLACEMENT OF GOVERNMENT PROPERTY--SPECIAL CONDITIONS**

- (a) Notwithstanding any other provisions of the contract to the contrary, the Contractor agrees that the Government will not authorize the replacement of any Government property subject to paragraph (e) below or repair costs of any Government property item valued less than \$5,000 subject to paragraph (e) below as a direct reimbursable cost under this contract. Replacement shall be at no cost to the Government except as may be permitted by FAR 31.205-11, "Depreciation." However, the Government may authorize and reimburse the repair of defective Government property as stated in paragraph (b) below. If the Contracting Officer does not approve the repair, the Contractor agrees to replace any defective Government property with same or similar Contractor owned/leased property. Such property need not be identical to the replaced property. Further, replacement may be waived by the Contracting Officer provided the Contractor submits a written request and demonstrates to the satisfaction of the Contracting Officer that the capability to perform the contract in an acceptable and efficient manner is not degraded.
- (b) In accordance with FAR clause 52.245-5, the Contractor is required to have an approved maintenance/repair program for all Government property. The criteria in this program shall be used to determine when the Contractor is required to request approval from the Contracting Officer for repair or replacement of Government property. The Government may reimburse the reasonable direct cost for the repair of Government property identified in paragraph (e) with a per item value greater than \$5,000.

To establish the end of economical life for items in paragraph (e) valued greater than \$5,000, the Contractor shall include in the maintenance/repair program a not-to-exceed dollar percentage number based on the original unit cost. As a standard, based on cumulative repair costs, upon reaching the "not-to-exceed" percentage number, the Contractor will process the defective Government property for disposal and replace it with Contractor owned/leased property.

The Contractor must submit each repair request to the Contracting Officer until such time as the Contractor's repair/maintenance program has been approved by the Government. When the maintenance program requires the Contractor to inform the Contracting Officer of the need for a repair/replacement decision, the Contractor shall notify the Contracting Officer, in writing, and provide a "not-to-exceed" dollar amount for the repair of the property and a rationale as to why repair is in the best interest of the Government, considering age of the property, the nature of the defect(s), and the criticality of the property to the accomplishment of the contract requirements. If the Contracting Officer agrees that the property is required for contract performance and that repair is in the best interest of the Government, the Contracting Officer may authorize the repair. If the Contracting Officer considers that repair is not in the best interests of the Government, the Contracting Officer shall notify the Contractor. The replacement item shall be provided by the Contractor in accordance with paragraph (a) above. The availability or serviceability of Government property identified in paragraph (e) below shall not be a basis for non-performance of contract requirements. This decision by the Contracting Officer shall not be subject to the Disputes clause of this contract.

- (c) The Contractor shall maintain complete records of Contractor-owned or leased equipment, which is subject to this clause. Such records shall include item or model number, date of purchase, purchase price, depreciation schedule, and amount of depreciation recorded from time to time. The Contractor shall provide these records to the Contracting Officer promptly upon the latter's request, along with the Contractor's best estimate of the undepreciated balance of each item of equipment.
- (d) The Contractor agrees that at the end of the contract performance period, and the Government does not thereafter contract with the same Contractor as the successor Contractor for the same or similar services contemplated by this contract, the Contractor may, upon request by the Contracting Officer, transfer title of any Contractor owned or leased equipment identified in paragraph (c) above as identified by the Contracting Officer to either (1) the Government or (2) a successor Contractor. If a request for transfer of title to the Government is made, the Government agrees to recognize as allowable costs under the Contract, for identified equipment, the undepreciated cost of the equipment as of the end of the Contract performance period. If a request for transfer of title to a successor Contractor is made, the Contractor agrees to transfer title to identified equipment to the successor Contractor for an amount not to exceed the applicable residual balances, subject to reasonable terms and conditions regarding payment and other matters to be agreed upon by the parties.
- (e) This clause (G.7) shall apply to the Installation Accountable Government Property as identified in the Department of the Army Supply Bulletin SB 708-21 "Federal Supply Classification" Part 1, Groups and Classes (January 1998)

Group 23:            Class 2330 - Trailers

                          Class 2340 - Motorcycles, Motor Scooters and Bicycles

- Group 24      Class 2420 - Trucks and Truck Tractors, Wheeled  
                   Class 2440 - Tractors, Wheeled
- Group 36:      Class 3695 – Miscellaneous Special Industry Machinery
- Group 37:      Class 3710 - Soil Preparation Equipment  
                   Class 3740 - Pest, Disease, and Frost Control Equipment  
                   Class 3750 - Gardening Implements and Tools
- Group 51:      Class 5110 - Hand Tools, Edged, Nonpowered  
                   Class 5120 - Hand Tools, Nonedged, Nonpowered  
                   Class 5130 - Hand Tools, Power Driven  
                   Class 5180 - Hand Tools, Sets, Kits, and Outfits
- Group 74:      Class 7420 - Accounting and Calculating Machines  
                   Class 7430 - Typewriters and Office Type Composing Machines  
                   Class 7450 - Office Type Sound Recording and Reproducing  
                   Machines  
                   Class 7490 - Miscellaneous Office Machines
- Group 79:      Class 7910 – Floor Polisher and Vacuum Cleaning Equipment

(End of Clause)

**G.8    POLICY DIRECTIVES, PROCEDURES, AND GUIDELINES**

NASA/SSC maintains a set of SSC Policy Directives (SPD) and SSC Procedures and Guidelines (SPG) and SSC Standards that govern many aspects of activity at SSC. The Contractor shall incorporate the provisions of applicable SPD's, SPG's, SSC Standards into all organizations in planning for the performance of this contract, and shall comply with the most current provisions during the term of the contract.

NASA/MSFC maintains a set of MSFC Policy Directives (MPD) and MSFC Procedures and Guidelines (MPG) and MSFC Standards that govern many aspects of activity at MSFC. The Contractor shall incorporate the provisions of applicable MPD's, MPG's, MSFC Standards into all organizations in planning for the performance of this contract and shall comply with the most current provisions during the term of the contract.

(End of Clause)

**G.9 AWARD FEE FOR SERVICE CONTRACTS (NFS 1852.216-76) (JUNE 2000)**

- (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 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 Section J, Attachment J-3, titled Award Fee 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 Financial Management Division, code BA22C will make payment based on issuance of unilateral modification by Contracting Officer.
- (d) After 85 percent of the potential award fee has been paid, the Contracting Officer may direct the withholding of further payment of award fee until a reserve is set aside in an amount that the Contracting Officer considers necessary to protect the Government's interest. This reserve shall not exceed 15 percent of the total potential award fee.
- (e) The amount of award fee which can be awarded in each evaluation period is limited to the amounts set forth at Section J, Attachment J-3. Award fee which is not earned in an evaluation period cannot be reallocated to future evaluation periods.
- (f)
  - (1) Provisional award fee payments will be made under this contract pending the determination of the amount of fee earned for an evaluation period. If applicable, provisional award fee payments will be made to the Contractor on a monthly basis. The total amount of award fee available in an evaluation period that will be provisionally paid is the lesser of 80 percent or the prior period's evaluation score.
  - (2) Provisional award fee payments will be superseded by the final award fee evaluation for that period. If provisional payments exceed the final evaluation score, the Contractor will either credit the next payment voucher for the amount of such overpayment or refund the difference to the Government, as directed by the Contracting Officer.
  - (3) If the Contracting Officer determines that the Contractor will not achieve a level of performance commensurate with the provisional rate, payment of provisional award fee will be discontinued or reduced in such amounts as the Contracting Officer deems appropriate. The Contracting Officer will notify the Contractor in writing if it is determined that such discontinuance or reduction is appropriate.

- (4) Provisional award fee payments will be made prior to the first award fee determination by the Government.
- (g) Award fee determinations are unilateral decisions made solely at the discretion of the Government.

(End of Clause)

[END OF SECTION]

**PART I – THE SCHEDULE**

**SECTION H**

**SPECIAL CONTRACT REQUIREMENTS**

## SPECIAL CONTRACT REQUIREMENTS

### H.1 LISTING OF SECTION H CLAUSES INCORPORATED BY REFERENCE

The following clauses are hereby incorporated by reference in accordance with FAR 52.252-2 CLAUSES INCORPORATED BY REFERENCE (FEB 1998):

This solicitation incorporates one or more solicitation provisions 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. The Offeror is cautioned that the listed provisions may include blocks that must be completed by the Offeror and submitted with its quotation or offer. In lieu of submitting full text of those provisions, the Offeror may identify the provision by paragraph identifier and provide the appropriate information with its quotation or offer. Also, the full text of a solicitation provision may be accessed electronically at these address(es):

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

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

#### NASA FAR SUPPLEMENT (48 CFR CHAPTER 18) CLAUSES:

<u>Clause Number</u>	<u>Title</u>
1852.204-74	CENTRAL CONTRACTOR REGISTRATION (MAY 2002)
1852.208-81	RESTRICTIONS ON PRINTING AND DUPLICATING (OCT 2001)
1852.223-70	SAFETY AND HEALTH (APR 2002)
1852.223-75	MAJOR BREACH OF SAFETY OR SECURITY (FEB 2002)
1852.225-70	EXPORT LICENSES (FEB 2000)
1852.242-72	OBSERVANCE OF LEGAL HOLIDAYS (AUG 1992) ALTERNATE I (SEPT 1989) ALTERNATE II (OCT 2000)

(End of Clause)

### H.2 SECURITY CLASSIFICATION REQUIREMENTS (NASA 1852.204-75) (SEP 1989)

Performance under this contract may 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, Department of Defense (DD) Form 254, Contract Security Classification Specification, Attachment J-9, and Contract Clause H.14 for further information.

(End of Clause)

**H.3 REPRESENTATIONS, CERTIFICATIONS, AND OTHER STATEMENTS OF OFFERORS**

This contract incorporates Section K, Representations, Certifications, and Other Statements of Offerors, as set forth in the Contractor's proposal dated TBDC, by reference, with the same force and effect as if it were given in full text.

(End of Clause)

**H.4 SMALL BUSINESS SUBCONTRACTING PLAN**

- (a) NASA's objective is to ensure the execution of a vigorous program at the prime contract and subcontract levels which will optimize the opportunity for subcontract participation of small business, HUBZone small business, small disadvantaged business, women-owned, and veteran owned, small business concerns as defined in FAR 52.219-8.
- (b) Pursuant to FAR clause 52.219-9 entitled "Small Business Subcontracting Plan," an approved subcontracting plan will be incorporated in Attachment J-7. Changes to the plan will be authorized only by contract modification. The Contractor shall exert its best effort to operate in accordance with this plan, and this shall be a subfactor in determining award fee under this contract in accordance with Attachment J-3. A subcontracting plan shall be submitted for the base period and all option periods.
- (c) Each subcontracting goal shall equal or exceed the following percentage of total contract value for each contract year:

<b>Small Business</b>	<b>33%</b>
1. Small Disadvantaged Business (SDB)	29%
2. Women-Owned	2%
3. Veteran-Owned	1%
4. Hubzone	1%

The 33% goal is small business, which includes the small disadvantaged business goal, the women-owned small business goal, the veteran owned small business goal, and the HUBZone small business goal. However, each of these four (4) goals are separate goals that are individually calculated against total contract value.

(End of Clause)

**H.5 MINIMUM INSURANCE COVERAGE (NFS 1852.228-75) (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 co-mingled 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 exclusion or monopolistic funds that do not permit workers' compensation to be written by private carriers.
- (b) Comprehensive general (bodily injury) 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."

(End of Clause)

**H.6 DOCUMENTATION REQUIREMENTS**

- (a) Data Requirements: Requirements for technical or management information are imposed on the Contractor through the use of the Data Procurement Document (DPD), included as Attachment J-2 in Section J. The DPD describes, defines and specifies the information required and lists the technical or management information to be produced and/or delivered as required by NASA/SSC to administer the contract.
- (b) Contractor Data Management: The Contractor shall establish a data management system or utilize the Contractor's existing data management system for the data called for in the Performance Work Statement. The data management system shall be capable of providing appropriate internal procedures for the control of collection, preparation, publication, quality, assessment, distribution, and maintenance of

authorized data. Such control shall apply to data acquired from subcontractors by the Contractor.

- (c) **Data Reviews:** The Contractor, upon request, shall participate in periodic reviews of contract data requirements for maintaining current Contract DPD's. This assistance shall include identification of additional data items and recommendations for deletions considered appropriate in consonance with test operation services required at SSC and MSFC.
- (d) **Changes in Distribution:** When changes to the original distribution requirements are required by the Contracting Officer, the Contractor shall act upon such changes upon receipt of an approved Request for Data or upon revision to the distribution part of the DPD provided such changes do not incur additional costs. In the event that additional cost is involved, an equitable adjustment shall be negotiated.
- (e) **NASA Contract Deliverable System:** Contract data deliverables shall be submitted to NASA using the NASA Acquisition Internet Service (NAIS) Contract Deliverables System. If the system is unavailable or cannot be used for submission of a particular deliverable, due to Privacy Act or other considerations the Contractor shall use other standard methods for delivery.

(End of Clause)

#### **H-7 LIMITATION ON EXECUTIVE COMPENSATION**

The Office of Federal Procurement Policy (OFPP) Administrator issued a memorandum, dated May 3, 2001, revising the benchmark limitation on executive compensation under Government contracts for fiscal year 2001 from \$353,010 to \$374,228. The \$374,228 amount is to be used for Contractor fiscal year 2001 and any subsequent Contractor fiscal years unless and until revised by OFPP. The limitation applies to the five most highly compensated employees at each home office and segment of a Contractor. The limitation amount applies to contract costs incurred after January 1, 2001, under defense and civilian agency contracts, whether or not the contract was previously subject to a statutory limitation on compensation. Compensation in excess of the benchmark limitation is unallowable.

(End of Clause)

#### **H-8 HANDLING OF DATA**

- (a) Except as specifically authorized by this contract, or as otherwise approved in writing by the Contracting Officer, all information and data developed, acquired or furnished by or to the Contractor in the performance of this contract, shall be used only in connection with the work under this contract, and shall be protected by the Contractor from unauthorized use, release, duplication, or disclosures. In the performance of this contract, it is anticipated that the Contractor may have access to, be furnished, or use the following categories of data (which may be technical data, computer software, generated test data, administrative, management information, or financial, including cost or pricing).

- (1) Data of third parties which the Government has agreed to handle under protective arrangements;
  - (2) Data of third parties bearing limited rights or restricted rights notices submitted either to the Government or directly to the Contractor; and
  - (3) Data, generated by the Government or the Contractor, of which, the Government intends to control.
- (b) In order to protect the interests of the Government and the owners, licensors and licensees of such data, the Contractor agrees, with respect to any such third party or Government data that is either marked with a restrictive legend, specifically identified in this contract, or otherwise identified in writing by the Contracting Officer as being subject to this clause, to:
- (1) Use, disclose, and reproduce such data only to the extent necessary to perform the work required under this contract;
  - (2) Allow access to such data only to those of its employees that require access for their performance under this contract;
  - (3) Preclude access and disclosure of such data outside the Contractor's organization performing work under this contract, without written consent of the Contracting Officer; and
  - (4) Return or dispose of such data, as the Contracting Officer may direct, when the data is no longer needed for contract performance.
- (c) The Contractor agrees to inform and instruct its employees of its and their obligations under this clause and to appropriately bind its employees and subcontractors contractually to comply with the access, use, disclosure, and reproduction provision of this clause.
- (d) Nothing contained in this special contract requirement or elsewhere in this contract shall be construed as altering the definition of "technical data" for the purpose of applying the requirements of the clause herein entitled FAR 52.227-14, "Rights in Data—General."
- (e) The Contractor's Handling of Data Plan is a deliverable of Data Requirement MA07 and will be incorporated as part of the Contract in (Attachment J-6).

(End of Clause)

**H-9 CONTRACTOR REPRESENTATIVE(S)**

The Contractor shall designate one of its personnel at SSC to act as overall manager, and delegate to this person the complete authority to decide all matters connected with this contract, to include operations conducted at MSFC. The Contractor shall further designate a second employee at SSC as alternate with the authority to act as and on upon behalf of the manager in the event of the absence or incapacity of the designated manager. The Contractor shall advise the Contracting Officer in writing of the persons so designated. Also see J-1, Section 1-0, for Management and Administration of the integrated team.

(End of Clause)

**H-10 OBSERVANCE OF LAWS AND REGULATIONS**

- (a) The Contractor shall procure and keep effective necessary business and professional permits and licenses required in performance of the work. Generally, NASA will execute the necessary environmental permits.
- (b) Inasmuch as various departments and agencies of the government, several Contractors and other tenants jointly occupy SSC/MSFC and are confronted with certain common conditions and problems resulting from this co-occupancy, certain uniform policies, regulations, and procedures will be issued, as required, by the government (NASA/SSC/MSFC), and will be applicable to all personnel working at SSC and MSFC. The Contractor shall adhere to these policies and procedures insofar as such policies and procedures are in conformity with the terms of this contract.
- (c) All employees of the Contractor assigned to perform the work under this contract shall be under the control of the Contractor during the performance of such assignment. The Contractor shall be responsible for satisfactory standards of employee competency, conduct and integrity and shall be responsible for taking such disciplinary action with respect to its employees as may be necessary.
- (d) The above provisions of this Section shall be made equally applicable by the Contractor to employees other than those of the Contractor to the extent that they may be assigned work under this contract notwithstanding the basis of the assignment, e.g., subcontract.

(End of Clause)

**H-11 MOTOR VEHICLE MANAGEMENT**

- (a) Acquisition of Motor Vehicles: The Contractor shall operate and manage GSA and commercially Leased Motor Vehicles as necessary to support the performance of the contract. Such needed vehicles are to be operated and managed in the manner most efficient and economical to the government. If deemed necessary, additional vehicles may be obtained from the GSA Interagency Motor Pool and/or leased from commercial sources subject to approval and authorization by the SSC

Transportation Officer. When the acquisition of commercially leased vehicles is deemed appropriate, such acquisition shall be authorized by the SSC Transportation Officer and approved in advance by the Contracting Officer.

- (b) The Contractor shall assure that all operators of government-owned vehicles possess valid state licenses. The Contractor will furnish GSA and the Contracting Officer a copy of their third party automobile liability insurance policy, as defined in NFS 1852.228-75 entitled "Minimum Insurance Coverage," covering any and all leased GSA motor vehicles.
- (c) The parties further agree that, with respect to any commercially leased motor vehicles authorized for use in performance under this contract, the lease costs, which may include therein applicable costs of collision and comprehensive insurance, shall be considered allowable costs to the extent that they are reasonable and allocable to this contract. Upon commercial lease of a motor vehicle(s), the Contractor shall give written notice to the Contracting Officer as to the insurance coverage provided by such lease agreement.
- (d) The Contractor shall be liable for, and shall indemnify and hold harmless the Government against, all actions or claims for loss of or damage to property or the injury or death of persons, resulting from the fault, negligence, or wrongful act or omission of the Contractor, its agents, or employees.

(End of Clause)

**H-12 REGISTER OF WAGE DETERMINATION UNDER THE SERVICE CONTRACT ACT**

The FAR Clause 52.222-41, Service Contract Act of 1965, as amended, shall apply to the contract. The Contractor and subcontractors (if applicable) will be required to compensate the employees engaged in performance of this contract at wage rates (including fringe benefits) at least equal to the rates prescribed in the attached Department of Labor, SCA Wage Determination (See Section J, Attachment J-4).

(End of Clause)

**H-13 NATIONAL LABOR RELATIONS ACT**

- (a) The selected Contractor shall be required to comply with the requirements of the National Labor Relations Act.

Some of the service employees located at MSFC are represented by the following collective bargaining representative (Union):

- Bricklayers and Allied Craftsmen – Local No. 15
- International Brotherhood of Electrical Workers, Local No. 558
- International Brotherhood of Painters and Allied Trades, Local No. 1293
- International Union of Operating Engineers, Local No. 320
- Laborer's International Union of North America, Local No. 366

- Sheet Metal Workers' International Association, Local No. 48
  - UA Plumbers and Steamfitters, Local No. 377
  - United Brotherhood of Carpenters & Joiners of America, Local No. 1274
- (b) As a government contracting activity, SSC/MSFC recognizes the rights afforded these individuals by the National Labor Relations Act. Therefore, the successful Contractor agrees to maintain practices that are in compliance with these mandatory provisions of law.

(End of Clause)

#### **H-14 SECURITY CONTROLS**

- (a) Security Requirements. Performance of this contract requires reproduction of classified information. Contractor personnel will also be required to obtain access to classified information or to enter areas where classified documents are kept. Personnel security clearances required or requested for work assignments on this contract will be limited strictly to those required to perform the assigned function. The Contractor will be guided by Section III of the Industrial Security Manual, DoD 5220.22-M and will comply with Attachment J-9, Contract Security Classification Specification.

The Contractor shall require each employee engaged on the work site to display government furnished identification badges and special access badges at all times. The Contractor shall upon termination of an employee, immediately deliver badges and/or passes issued to the employee to the Security Officer.

- (b) Access to Secure Areas. Portions of the work under the contract are performed in secure areas, needing specific access requirements. These secure controlled/restricted areas are normally surrounded by fencing and have an entrance gate monitored by a guard or monitoring device. Access into such areas is categorized into "escorted" and "unescorted" access. All persons requiring unescorted access to a secure area shall be the subject of a favorable security investigation (security clearance) required for access to that area or, in most cases, will be escorted by an approved escort official. The Contractor is responsible for providing escort services for any of his employees and/or any subcontractor employees who are not eligible for unescorted access. Personnel requiring access to areas containing classified information or material shall have the appropriate security clearance as approved by Defense Investigative Security Clearance Office.
- (c) Interfaces. The Contractor shall comply with controlled/restricted area procedures and instructions, to include proper security clearances. Contractor personnel working in controlled/restricted areas, such as the test complex area, and computer rooms, may be required to sign in and out, state the nature of business at the entrance desk, and display a unique user provided badge. All work in controlled/restricted areas shall be coordinated with the respective unit or organization in accordance with local agency security procedures.
- (d) IT Security. The Contractor shall manage the security, operation and support of IT resources in accordance with NPG 2810.1 and in accordance with all applicable

SSC/MSFC IT security guidelines and policies. This includes contract and system IT security plans, risk assessments, access policies, contingency planning, personnel screening, awareness, and training. NASA may audit the Contractor's IT security planning efforts on an annual basis or as required to ensure compliance. The Contractor shall assist the Government in maintaining a level of security that minimizes the threat of unauthorized access to IT resources and the destruction of Government data. The Contractor shall provide reports, plans, guidance and support to meet the security requirements for IT at SSC/MSFC as required by the National Security Act and NASA Headquarters. Specific documents guiding the IT Security functions include: Office of Management and Budget Circular A-130, NPD 2810.1, NPG 2810.

(End of Clause)

#### **H-15 RESERVED**

#### **H-16 GOVERNMENT/CONTRACTOR FURNISHED PROPERTY**

- (a) Government Furnished Property: Attachment J-10 is a listing of property that the government will make available to the Contractor for performance of this contract. The final list of government furnished property will be incorporated into the contract by reference. If the Government fails to provide the property or services specified in Clause 1852.245-77, List of Installation-Accountable Property and Services, and that failure adversely affects the Contractor's ability to perform the contract, the Contracting Officer shall, upon timely written request from the Contractor, (1) make a determination of the effect on the Contractor, and (2) equitably adjust the contract in accordance with the procedures provided in the Changes clause of this contract. Equitable adjustments made pursuant to this clause, however, shall not include adjustments in fee.
- (b) Government Replaced: Government property in Attachment J-10, List 1 (No Class Exceptions) provided to the Contractor as serviceable government property in accordance with FAR 52.245-5 shall be at the determination of the government and shall remain government owned property.
- (c) Contractor Replaced: Government property in Attachment J-10, List 2 (Class Exceptions) specifies existing government property made available to the Contractor on an "as-is" basis in accordance with FAR 52.245-19. The Contractor shall provide any necessary replacements as Contractor owned/leased property. The Government makes no warranty whatsoever with respect to property made available "as-is" except that the property is in the same condition, less fair wear and tear, when placed at the delivery point as when inspected or made available for inspection by the Contractor. Upon reaching the end of its useful life, it will be processed for disposal in accordance with Government procedures. Replacement and maintenance costs (excluding fuel, oil, and lubricants) of Contractor owned/leased property will be at Contractor's expense.

If there is any change in the condition of Government property from the time inspected or made available for inspection to the time of issuance to the Contractor,

and such change will adversely affect the Contractor, the Contractor shall, upon receipt of the property, immediately notify the Contracting Officer detailing the facts and, as directed by the Contracting Officer, either (1) return such property for disposal or (2) effect repairs to return the property to its condition, less fair wear and tear, when inspected or made available for inspection. The Contractor will be allowed a cutoff period of 60 days from contract start, during which time a claim may be made. After completing the directed action and upon written request of the Contractor, the Contracting Officer shall equitably adjust the contract. The foregoing provisions for adjustment are the exclusive remedy available to the Contractor, and the Government shall not be otherwise liable for any delivery of Government property other than that in which it was originally offered.

In the event the Government makes available additional IAGP (Class Exceptions) not initially provided in Attachment J-10, List 2, and the Contractor accepts it for use in support of the contract, the C.O. shall equitably adjust the contract.

At Contractor's expense, in accordance with Section G, the Contractor may repair or modify any property or the Contractor may substitute Contractor-owned property to perform the scope of work requirements. Modifications to property may only be made with the written permission of the Contracting Officer. Any repair or modification to IAGP shall not affect the title of the Government. The Contractor shall maintain maintenance, repair, and modification records on Government property specifically identified in Attachment J-10, List 2.

**H-17 CAPITALIZATION OF CONTRACTOR OWNED EQUIPMENT**

- (a) Capitalization: The Contractor may purchase equipment for the purpose of performing the work described in the PWS. The capital equipment will be capitalized and depreciated in accordance with the Contractor's established cost accounting practices and procedures, as follows:

Equipment Type	Cost	Minimum Useful Life	Depreciation Method
<u>TBDC</u>	<u>\$TBDC</u>	<u>TBDC</u>	<u>TBDC</u>

- (b) Contractor Records: The Contractor agrees to maintain and provide to the contracting officer upon request, complete records of capital equipment that are subject to this clause, including date of purchase, estimated service life, purchase price, depreciated base, method, and schedule, and amount of depreciation recorded to date.
- (c) Right to Purchase: If upon expiration or termination of this contract the Government does not thereafter contract with the Contractor for the performance of the same, or substantially the same services contemplated by this contract, the Contractor shall, upon request by the successor Contractor(s), transfer title to any prime Contractor dedicated equipment identified in the records referenced above, to the successor Contractor(s) at net book value, subject to reasonable terms and conditions regarding payment and other matters to be agreed upon by the Contractor and successor Contractors.

(End of Clause)

**H-18 NASA RECORDS MANAGEMENT**

The Contractor shall create, maintain, preserve, and dispose of NASA records in accordance with NPG 1441.1 "NASA Records Retention Schedule" (refer to Attachment J-1).

(End of Clause)

**H-19 SAFETY AND HEALTH PLAN**

The Contractor's Safety and Health Plan is incorporated into the contract in Attachment J-11.

(End of Clause)

**H-20 ASBESTOS AND LEAD**

During performance of this contract, Contractor personnel performing work in SSC/MSFC buildings may come in contact with materials containing asbestos. Portions of SSC buildings 1000, 1100, 1200, 2101, and 2201 and MSFC buildings 4200, 4201, 4202, 4663 and 4666, contain asbestos spray applied insulation. Other buildings may contain asbestos around pipes,

ducts, boilers, floors and tanks. The Contractor shall be responsible for ensuring all applicable codes, standards and regulations are adhered to and enforced, including OSHA Standard 29 CFR 1910.1001, OSHA Standard 29 CFR 1926.58 and USEPA 40 CFR 61, Subpart M. Prior to disturbing suspected asbestos in any manner, the Contractor shall notify the NASA (SSC/MSFC) Environmental Officer, who serves as Asbestos Program Manager, for guidance. The Contractor shall be responsible for ensuring all Contractor personnel working on site are made aware of and comply with this clause.

SSC has an Asbestos Hazard Control Plan which addresses procedures for work involving potential asbestos exposure. The Contractor will be required to comply with the provisions of this plan whenever his work involves the potential for exposure to asbestos. The SSC Asbestos Hazard Control Plan (SCWI-8500-0019-ENV) and the Lead Hazard Control Plan (SCWI-8500-0018-ENV) are located in the TRL. MSFC Asbestos & Lead Hazard plans are Contractor developed and task specific.

In addition to asbestos, Contractor personnel at SSC/MSFC may come in contact with lead based paints. The locations of lead based paint have been documented on facility drawings to the extent possible. Other areas may require sampling and analysis if lead based paints are suspected.

(End of Clause)

## **H-21 ENVIRONMENTAL PLANNING**

During performance of this contract, the Contractor or its subcontractor(s) may be required to design projects or perform projects that will potentially impact the environment. To guide the Contractor in what needs to be considered in project designs and planning, the Contractor shall reference the SSC Environmental Resources Document (ERD). The development and submission to the NASA Environmental Office of the Environmental Study form (SSC # 696M) found in the ERD is required for all construction projects and for all activities that have any potential for impacting the environment. The NASA Environmental Office will determine if the project will require evaluation under the National Environmental Policy Act and what environmental permits will be needed prior to proceeding with the project.

(End of Clause)

## **H-22 HAZARDOUS MATERIAL AND HAZARDOUS WASTE MANAGEMENT**

During the performance of this contract, the Contractor or subcontractor may be required to requisition, handle and manage hazardous materials in support of specific projects. The Contractor may also generate waste for ultimate disposal by NASA. In the performance of these activities, the Contractor shall abide by Stennis Procedures and Guidelines SCWI-8500-0004-ENV "Hazardous Materials, Hazardous Waste and Solid Waste Procedures and Guidelines" SCWI-8500-0020-ENV, "Integrated Contingency Plan" and SPG 8715.1, "Stennis Space Center Safety and Health Procedures and Guidelines" while operating at SSC. The Contractor shall abide by MSFC Procedures and Guidelines MPG 8500.1A "MSFC Environmental Management Program, MWI 8550.1 "Waste Management, MWI 8550.2 "Storm Water Management, MWI 8550.5 "Hazard Material Management and MWI 8715.9B Occupational Safety Guidelines for MSFC Contractors.

(End of Clause)

**H-23 PARTNERING**

The Government defines partnering as it relates to this contract as: a process that involves both Government and Contractor personnel meeting together for the purpose of identifying, considering alternatives, resolving and implementing improvements, working out solutions for various identified Government and Contractor concerns, problems, performances, and opportunities. This includes Contractor to Contractor interfaces.

SSC/MSFC expects all Government and Contractor employees to work together to support the mission of both Centers. The Government expects the TOC Contractor to interface in a professional manner with regard to establishing working relationships and resolving differences with other Contractor support functions at both centers.

(End of Clause)

[END OF SECTION]

**PART II – CONTRACT CLAUSES**

**Section I**

**CONTRACT CLAUSES**

## CONTRACT CLAUSES

### **I.1 LISTING OF CLAUSES INCORPORATED BY REFERENCE**

The following clauses are hereby incorporated by reference in accordance with FAR 52.252-2 CLAUSES INCORPORATED BY REFERENCE (FEB 1998):

This solicitation incorporates one or more solicitation provisions 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. The Offeror is cautioned that the listed provisions may include blocks that must be completed by the Offeror and submitted with its quotation or offer. In lieu of submitting full text of those provisions, the Offeror may identify the provision by paragraph identifier and provide the appropriate information with its quotation or offer. Also, the full text of a solicitation provision may be accessed electronically at these address(es):

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

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

#### **A. Federal Acquisition Regulation (48 CFR Chapter 1) Clauses**

<u>CLAUSE NO.</u>	<u>TITLE</u>	<u>DATE</u>
52.202-1	Definitions	Dec. 2001
52.203-3	Gratuities	Apr. 1984
52.203-5	Covenant Against Contingent Fees	Apr. 1984
52.203-6	Restriction 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. 1997
52.204-2	Security Requirements	Aug. 1996
52.204-4	Printing or Copying Double-Sided on Recycled Paper	Aug. 2000
52.208-9	Contractor Use of Mandatory Sources of Supply	Feb. 2002
52.209-6	Protecting the Government's Interest When Subcontracting with Contractors Debarred, Suspended, or Proposed for Debarment	Jul. 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
52.215-11	Price Reduction for Defective Cost or Pricing Data-Modifications	Oct. 1997
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 Revisions	Dec. 1998
52.215-16	Facilities Capital Cost of Money	Oct. 1997
52.215-18	Reversion or Adjustment of Plans for Postretirement Benefits Other Than Pensions (PRB)	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
52.216-7	Allowable Cost and Payment	Dec. 2002
52.217-8	Option to Extend Services (Insert: 30 days)	Nov. 1999
52.217-9	Option to Extend the Term of the Contract (Insert: 30 days, <u>6 Years</u> )	Mar. 2000
52.219-4	Notice of Price Evaluation Preference for HUBZone Small Business Concerns (Insert: ___ Offer elects to waive the evaluation preference)	Jan. 1999
52.219-8	Utilization of Small Business Concerns	Oct. 2000

52.219-9	Small Business Subcontracting Plan with (Alternate II, (Oct. 2001))	Jan. 2002
52.219-16	Liquidated Damages-Subcontracting Plan	Jan. 1999
52.219-23	Notice of Price Evaluation Adjustment for Small Disadvantaged Business Concerns (Insert: 10%, ___ Offer elects to waive the evaluation preference)	May 2001
52.219-25	Small Disadvantaged Business Participation Program- Disadvantaged status and Reporting	Oct. 1999
52.222-1	Notice to the Government of Labor Disputes	Feb. 1997
52.222-2	Payment for Overtime Premiums (Insert: <u>zero</u> )	Jul. 1990
52.222-3	Convict Labor	Aug. 1996
52.222-4	Contract Work Hours and Safety Standards Act-Overtime Compensation	Sep. 2000
52.222-21	Prohibition of Segregated Facilities	Feb. 1999
52.222-24	Pre Award of On-Site Equal Opportunity Compliance Evaluation	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
52.222-41	Service Contract Act of 1965, As Amended	May 1989
52.222-42	Statement of Equivalent Rates for Federal Hires (Refer to Attachment J-5)	May 1989
52.223-3	Hazardous Material Identification and Material Safety Data	Jan. 1997
52.223-5	Pollution Prevention and Right-to-Know Information	Apr. 1998
52.223-6	Drug-Free Workplace	May. 2001
52.223-7	Notice of Radioactive Material (Insert: 30)	Jan. 1997
52.223-9	Estimate of Percentage of Recovered Material Content for EPA Designated Products (Insert: Submit this estimate to: NASA Acquisition Management Office, Code BA31, Attn: Contracting Officer, John C. Stennis Space Center, MS. 39529 and 1 copy to: Environmental Office Code RA02, Environmental Officer, John C. Stennis Space Center, MS 39529)	Aug. 2000
52.223-10	Waste Reduction Program	Aug. 2000
52.223-11	Ozone-Depleting Substances	May. 2001
52.223-12	Refrigeration Equipment and Air Conditioners	May 1995
52.223-14	Toxic Chemical Release Reporting	Oct. 2000
52.224-1	Privacy Act Notification	Apr. 1984
52.224-2	Privacy Act	Apr. 1984
52.225-1	Buy American Act – Supplies	May. 2002
52.225-13	Restrictions on Certain Foreign Purchases	Jul. 2000
52.227-1	Authorization and Consent	Jul. 1995
52.227-2	Notice & Assistance Regarding Patent & Copyright Infringement	Aug. 1996
52.227-11	Patent Rights - Retention by the Contractor (Short Form) (As Modified by NFS 1852.227-11)	Jun. 1997
52.227-14	Rights in Data-General (As Modified by NFS 1852.227-14)	Jun. 1987
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
52.230-6	Administration of Cost Accounting Standards	Nov. 1999
52.232-9	Limitation on Withholding of Payments	Apr. 1984
52.232-17	Interest	Jun. 1996
52.232-20	Limitation of Cost	Apr. 1984
	OR	
52.232-22	Limitation of Funds	Apr. 1984
52.232-23	Assignment of Claims	Jan. 1986
52.232-25	Prompt Payment	Feb. 2002
52.232-33	Payment by Electronic Funds Transfer— Central Contractor Registration	May 1999
52.233-1	Disputes – with (Alternate I (Dec. 1991))	Jul. 2002

52.233-3	Protest After Award with (Alternate I (Jun 1985))	Aug. 1996
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
52.242-4	Certification of Final Indirect Costs	Jan 1997
52.242-13	Bankruptcy	Jul. 1995
52.243-2	Changes-Cost Reimbursement- with (Alternate II (Apr. 1984))	Aug. 1987
52.244-2	Subcontracts- with (Alternate I (Aug. 1998))	Aug. 1998
52.244-5	Competition in Subcontracting	Dec. 1996
52.244-6	Subcontracts For Commercial Items and Commercial Components	May. 2002
52.245-5	Government Property (Cost Reimbursement, Time and Materials, or labor-hour Contracts)	Jan. 1986
52.245-19	Government Property Furnished "As Is"	Apr 1984
52.247-1	Commercial Bill of Lading Notations	Apr. 1984
52.248-1	Value Engineering	Feb. 2000
52.249-6	Termination (Cost Reimbursement)	Sep. 1996
52.249-13	Failure to Perform	Apr. 1984
52.249-14	Excusable Delays	Apr. 1984
52.251-1	Government Supply Sources	Apr. 1984
52.251-2	Interagency Fleet Management System (IFMS) Vehicles and Related services	Jan. 1991
52.253-1	Computer Generated Forms	Jan. 1991

## B. NASA/FAR Supplement (48 CFR Chapter 18) Clauses

<u>Clause Number</u>	<u>Title</u>	<u>Date</u>
1852.204-76	Security Requirements for Unclassified Information	Jul 2002
1852.209-71	Technology Resources	
1852.209-72	Composition of the Contractor	Dec. 1988
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
1852.219-76	NASA 8 Percent Goal	Jul. 1997
1852.223-71	Frequency Authorization	Dec. 1988
1852.223-74	Drug- And Alcohol-Free Workplace	Mar. 1996
1852.236-73	Hurricane Plan	Dec. 1988
1852.237-70	Emergency Evacuation Procedures	Dec. 1988
1852.242-71	Travel Outside the United States	Dec. 1988
1852.243-71	Shared Savings	Mar. 1997

### I.2 ALTERATIONS IN CONTRACT (FAR 52.252-4) (APR 1984)

Portions of this contract are altered as follows:

In FAR Clause 52.243-2, Changes- Cost-Reimbursement - (Aug. 1987) Paragraph C, substitute "60 days" in lieu of "30 days."

(End of Clause)

**I.3 AUTHORIZED DEVIATIONS IN CLAUSES (FAR 52.252-6) (APR 1984)**

- (a) The use in this solicitation or contract of any Federal Acquisition Regulation (48 CFR Chapter 1) clause with an authorized deviation is indicated by the addition of "(DEVIATION)" after the date of the clause.
- (b) The use in this solicitation or contract of any NASA FAR Supplement (48 CFR Chapter 18) clause with an authorized deviation is indicated by the addition of "(DEVIATION)" after the name of the regulation.

(End of Clause)

**I.4 OMBUDSMAN (NFS 1852.215-84) (JUNE 2000)**

- (a) An ombudsman has been appointed to hear and facilitate the resolution of concerns from Offerors, potential Offerors, and Contractors during the pre-award and post-award phases of this acquisition. When requested, the ombudsman will maintain strict confidentiality as to the source of the concern. The existence of the ombudsman is not to diminish the authority of the Contracting Officer, the Source Evaluation Board, or the selection official. Further, the ombudsman does not participate in the evaluation of proposals, the source selection process, or the adjudication of formal contract disputes. Therefore, before consulting with an ombudsman, interested parties must first address their concerns, issues, disagreements, and/or recommendations to the Contracting Officer for resolution.
- (b) If resolution cannot be made by the Contracting Officer, interested parties may contact the installation ombudsman, Marina Benigno, NASA Business Management Directorate, John C. Stennis Space Center, MS. 39529, Phone: (228) 688-2387, FAX: (228) 688-1946, e-mail: [Marina.L.Benigno@nasa.gov](mailto:Marina.L.Benigno@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 202-358-0422, facsimile 202-358-3083, e-mail [sthompson1@mail.hq.nasa.gov](mailto:sthompson1@mail.hq.nasa.gov). Please do not contact the ombudsman to request copies of the solicitation, verify offer due date, or clarify technical requirements. Such inquiries shall be directed to the Contracting Officer or as specified elsewhere in this document.

(End of Clause)

[END OF SECTION]

**PART III – LIST OF DOCUMENTS, EXHIBITS AND OTHER ATTACHMENTS**

**SECTION J**

**LIST OF ATTACHMENTS**

**LIST OF ATTACHMENTS**

<u>Attachments</u>	<u>Title</u>
J-1	Performance Work Statement
J-2	Data Procurement Document
J-3	Award Fee Plan
J-4	Service Contract Act (SCA) Wage Determinations
J-5	U.S. Government Comparable Rates
J-6	Handling of Data Plan
J-7	Subcontracting Plan for Small, Small Disadvantaged, and Women-Owned Small Business Concerns
J-8	List of Applicable Manuals, Regulations and Procedures
J-9	Contract Security Classification Specification DD Form 254
J-10	List of Government-Furnished Property
J-11	Safety and Health Plan
J-12	Workload Indicators
J-13	Options Worksheet

**PART III – LIST OF DOCUMENTS, EXHIBITS AND OTHER ATTACHMENTS**

**SECTION J-1**

**PERFORMANCE WORK STATEMENT**

**PERFORMANCE WORK STATEMENT**  
**FOR**  
**TEST OPERATIONS CONTRACT**

**Introduction**

The National Aeronautics and Space Administration's (NASA) George C. Marshall Space Flight Center (MSFC) and John C. Stennis Space Center (SSC) require a Contractor to provide test and test support services. Successfully meeting the requirements of this performance work statement (PWS) requires knowledgeable and experienced engineers, technicians, trades and project managers.

This PWS consolidates test operations requirements of current test program activities at MSFC and SSC, specifically describing work according to the existing scope and processes. Consistent with goals for this consolidation effort, NASA expects to achieve process improvements in the areas of safety and mission assurance, commonality between Centers, efficiency, and best practices. This PWS requires the Contractor to seek and develop assigned tasks for innovation, consolidation, and streamlining.

To provide for a smooth startup with minimal risk, this PWS is configured to address current scope and unique processes at MSFC and SSC. With consideration of the uniqueness of each Center, innovative ideas may be proposed with sufficient justification to mitigate risks. The Contractor will be a significant driving force in identifying and developing rationale for improvements to be implemented over the term of the contract. Although some work requirements are identified in this PWS as MSFC or SSC only, appropriate rationale for all work requirements may be developed for application at both centers.

## **Section 1.0 Management And Administration**

The management and administration functions are those necessary to successfully execute testing at MSFC and SSC as described in this performance work statement. The Contractor's management team (DRD MA02) shall focus on accomplishing safe test operations using sound business practices. This team shall efficiently utilize personnel across and within the two centers and will, to the maximum extent possible, streamline and consolidate business and technical processes.

### **1.1 Administer Integrated Contract Team**

Supply and administer a flexible, competent, and qualified staff, integrated across all testing sites, to fully support and accomplish the contract requirements. The management organization shall be "seamless", with a single point of contact at SSC to act as the overall manager fully responsible for all services described in this PWS, acting as primary interface between the Contractor and the NASA/SSC Contracting Officer and Contracting Officer's Technical Representative and NASA/MSFC Technical Management Representative. Subcontractors and/or teaming arrangements shall be integrated into the Contractor's management structure.

NASA program requirements and schedules will dictate workforce and work hours, from one shift a day five days a week, to potentially 24-hour operations, 7 days a week, according to test requirements. In addition, short-term technical tasks, such as special designs and studies, may require provision of highly specialized technical personnel or services.

Provide integrated management and administrative services required for the execution of all contract activities, fully meeting the business, technical performance, and statutory and regulatory requirements of the contract such that the outcome of work performed under each work request:

- Fully meets the performance objective of the authorizing work request.
- Is performed within the schedule of the authorizing work request.
- Is accomplished within the cost estimate of the authorizing work request.
- Is accomplished in a safe and high quality manner.

#### **1.1.1 Provide technical staff that are trained and certified in all necessary skill types for rocket propulsion test activities.**

Ensure all personnel are qualified on the basis of appropriate education, training, experience, and certification to perform assigned tasks, accomplishing safety critical operations in compliance with regulatory requirements and in accordance with site-specific standards and procedures.

Based on site-specific requirements:

- Establish plans and processes for obtaining and maintaining a skilled workforce to meet the performance challenges of testing, which can include an apprentice/training program.
- Provide training to TOC personnel, to include cross training within and between test centers, through appropriate internal and external sources, to ensure the quality of workmanship on systems and equipment is consistent with aerospace/industry standards and NASA requirements.
- Personnel performing critical processes and safety critical tasks shall be certified as having been trained and proficient in their work tasks, e.g. maintain cleanliness procedures.
- Maintain and provide training records for Contractor personnel.
- **MSFC Only** - Provide Occupational Safety and Health Administration (OSHA) required safety training for Contractor's own personnel.
- **SSC Only** - Provide safety training and certification for assigned hazardous operations for all personnel including NASA and on site Contractors.
- **SSC Only** - Hazardous operations training and certification records shall be maintained in the SSC Training and Certification records System (TCRS).
- **SSC Only** - OSHA required safety training is provided by other Contractors.

Certification shall be accomplished and maintained in accordance with the requirements of NPG 8715.3 "Safety and Health Procedures and Guidelines", SPG 8715.1, MWI 3410.1 "Personnel Certification Program," and applicable codes for welding, inspection, and nondestructive evaluation (NDE) of structural and pressure piping welding. A Personnel Certification Plan shall be provided in accordance with DRD SA01, which will cover both MSFC and SSC.

### **1.1.2 Conduct and maintain a comprehensive program of safety and mission assurance (S&MA) and environmental protection**

Conduct and maintain a comprehensive program of safety and mission assurance (S&MA) and environmental protection in order to provide world-class test capability and a safe working environment. Support and maintain compliance with NASA's safety, environmental, and quality management initiatives to include Safety Training Observation Program (STOP), and ISO 9001 and 14001 registrations. In addition, the TOC will be prepared to implement OSHA Voluntary Protection Program (VPP), if required.

#### **1.1.2.1 Conduct operations safely**

Conduct operations safely, assuring products and services meet customer requirements and are in compliance with applicable Federal, State and Local regulatory requirements, including OSHA/EPA/State/NASA requirements, with a focus on institutional safety and health, operational safety, and system safety. Operations shall not compromise the safety and health of employees, the value of property, nor harm the environment. Safety hierarchy shall be given in the following order:

- Safety of public
- Safety of astronauts and pilots
- Safety of employees

- Safety of high value equipment

Identify hazards and control methods associated with the design, buildup, activation, and operation of systems supporting tests, in accordance with site-specific processes for TOC Process Safety Management (PSM) and core capability areas. (ref. section 2.0). Provide for:

- A Safety and Health Plan in accordance with DRD SA02.
- An Emergency Plan in accordance with DRD MA04.
- Participation in system and facility safety and test readiness reviews.
- Assessment and documentation of potential hazards, associated risk, and development of recommended remediation.
- Maintenance of product and services.
- Pursuit of process improvements where cost effective.
- Safety specialists who are authorized to take appropriate actions relative to safety requirements, including operational safety and environmental health considerations.
- Monthly safety review meetings for all test personnel including NASA and on site contractors.
- Provide and maintain a “job hazard analysis” to identify hazards and hazard controls for each job.

#### **1.1.2.2 Develop and maintain a mission assurance and quality management system**

Develop and maintain an effective and timely mission assurance program that includes quality assurance and control, and reliability and maintainability, which will be developed in conjunction with all other functions necessary to satisfy the contract requirements. The program shall:

- Provide a Mission Assurance Plan in accordance with DRD SA04.
- Demonstrate recognition of the mission assurance aspects of the contract and an organized approach to achieve them.
- Ensure that mission assurance requirements are determined and satisfied throughout all phases of contract performance as specified by the contract.
- Provide for the detection of actual or potential deficiencies, non-conformances, system incompatibility, marginal quality, and trends or conditions, which could result in unsatisfactory quality or performance.
- Use existing NASA systems to maintain quality records in an access controlled central location.
- Provide timely and effective remedial and preventive action.

Maintain compliance to the NASA Quality Management System (ISO Standard 9001). The ISO Registration scope includes the Contractor.

Develop and maintain appropriate work instructions necessary to implement the Level I and Level II QMS document requirements. Examples of processes requiring work instructions (which include Test Preparation Sheets [TPS]) include: engineering, purchasing, calibration, software development, test operations, and training. Support the

SSC internal audit process, which includes providing a central point of contact, organizational participation in the quality system internal audits, providing auditor personnel, and resolution of documented nonconformances (Corrective Action Requests [CAR]).

**1.1.2.3 Conduct and manage work activities in compliance with all applicable state, federal, local, and agency environmental regulations**

Review and evaluate proposed and promulgated federal and state environmental statutory and regulatory changes for impact on test operations. Within fifteen (15) calendar days of such notice, provide a written evaluation, discussing the operations and financial impact, and identify with rationale alternatives for impact mitigation, including implementation strategies. Report Air Emissions data in accordance with DRD EN01.

**MSFC Only**

Comply with all applicable state, federal, local, and agency environmental regulations.

**SSC Only**

Comply with ISO14001/environmental management system as described in SPG 8500.1 and all applicable state, federal, local, and agency environmental regulations and statutes.

**1.1.2.4 Maintain all assigned work areas in a clean and orderly condition**

Maintain all TOC assigned work areas, including assigned vehicles, storage areas, and field job sites, in a clean, neat, and orderly condition at all times, free from accumulations of waste materials. Remove all rubbish and waste materials to appropriate containers for recycling and/or pick-up by custodial staff. Required materials, tools, and equipment will be stored and maintained in the work area in a safe and orderly fashion.

**1.2 Use existing automated work authorization system**

Use existing automated work authorization and control systems for conducting day-to-day test activity. Do not accept unauthorized or out-of-scope work. However, actions taken to mitigate hazardous or emergency situations are in scope.

**MSFC Only**

Use existing Electronic TPS and QTPS for the detail work authorization system.

**SSC Only**

Use work authorization documents as specified in SOI-8080-0027.

**1.3 Effectively manage cost and schedule performance in accordance with approved operating plans and report resources status**

Effectively track, manage, and report all work performed with an appropriate financial accounting system that interfaces properly with existing government financial systems, and conforms to all Government accounting standards and reporting requirements, DRD MF01-MF06 and MF08.

The Contractor's work management system shall electronically interface with the NASA work ordering and financial accounting systems. Interface with MASS Release 2 (i.e. FRS and Sitewide) to provide detailed costs (e.g. labor materials, etc.), schedule, and workforce data. Costs will be reported weekly and accumulated monthly in an electronic file format based on requirements for inclusion in the SSC Sitewide system. Costs will be reported using the form 533Q and 533M, inclusive of detailed backup at the work authorization level. Monthly reports are due by close of business Tuesday following the end of the SSC fiscal month.

Provide annual operating (i.e. monthly cost phasing) plans in accordance with guidelines provided by NASA. Manage the contract to meet programmatic requirements using the approved fiscal operating budget as a guideline. Provide accurate, timely responses to data requests in support of the development of the Program Operating Plan (POP), annual cost phasing plans, and other actions on an ad hoc basis. A copy of the NASA SSC Fiscal Calendar is developed by the Financial Management Division and will be provided to the Contractor before October 1 of each fiscal year.

As requested by NASA, provide formal cost estimates associated with assigned tasks, including all labor, materials, schedule, and assumptions; and develop an Implementation Plan prior to initiating activity. The cost estimate will be the basis for work authorization for the project. Ensure customers are notified in writing or via email when actual cost of the work request has reached 80%, 90%, and 100% of the awarded and/or estimated funding. At no time shall the estimated funds on any work request be exceeded without approval from the NASA Contracting Officer. Report work requests with costs exceeding 100% of the original work request estimate (DRD MF07).

Reimbursable work requests, upon receipt, are required to provide estimates into the SSC Funds Availability System (FAS), and obtain FAS acceptance and reservation of funds before work begins. Updates to the FAS are required when work requests are amended and costs are incurred.

NASA is in the process of implementing an Integrated Financial Management Program (IFMP) utilizing SAP software. The Contractor should understand and support this initiative.

#### **1.4 Report Project Performance**

Report project performance status monthly and review with NASA management in accordance with applicable work request. For each project, by identified WBS and OBS elements, provide financial, technical, workforce, and schedule status information (budgeted cost of work performed (BCWP)) as required. The government normally compares the actual cost and schedule to the currently approved plan, and provides an analysis of variance. However, as requested, the Contractor must possess the capacity to provide this function.

#### **1.5 Provide procurement and property management for all assigned equipment**

Conduct property management for all government assigned equipment according to applicable regulations. Comply with NASA Property Management Manuals (MM 4000.1

and NASA Series 4000) for acquisition and accountability of materials and equipment. Implement an inventory control system for all non-capitalized property and equipment. Provide a Government Property Management Plan DRD LS01, including both sites, on request.

Provide property, and equipment necessary to perform the PWS as required by Contract Administration Data Section G and Special Contract Requirements Section H.

### **MSFC Only**

On an exception basis, provide procurement services of items not available from Government supply. Based on the dollar value and complexity, Contractor procurement may include: verification of non-availability from Government supply; preparation of procurement documentation; coordination with MSFC Quality Assurance Office; issuance of solicitations; review and evaluation of Contractor proposals; and managerial, technical control, and quality surveillance of vendors and subcontractors. Procurements over \$2,500 will be approved by the designated MSFC TMR with an aggregate of \$200,000 in this account per contract year.

Provide an itemized list of expenditures on request.

### **SSC Only**

The Contractor shall be responsible for all supplies, materials, equipment, and services needed for performance of work under the contract. All procurements will be requested through the Facility Operating Services (FOS) Contractor. NASA/SSC ISO Common Work Instruction SCWI-5100-0001 sets forth the SSC procedures for initiating the purchase of supplies and services.

## **1.6 Administer the Rocket Propulsion Test Management Board (RPTMB) and the National Rocket Propulsion Test Alliance (NRPTA)**

In accordance with RPTMB and NRPTA operating procedures (SSC-SOI-8080-0045-LC and NRPTA-001), administer the following:

- (a) Coordinate, initiate, and document teleconferences and Board/Alliance meetings by developing agendas, collecting and disseminating related information to Board/Alliance members and relevant parties, setting up teleconferences, maintaining meeting minutes and action items, and drafting and coordinating Action Requests and Board Directives/Alliance Recommendations, and disseminating and archiving the final recommendations.
- (b) Maintain master files of all documentation.
- (c) Maintain an equipment loan and transfer database consistent with NASA property management standards, including all supporting documentation.
- (d) Design and develop informational brochures and educational material as needed.

- (e) Maintain facilities capabilities database, including all NASA, Department of Defense (DOD), and industry rocket propulsion test capabilities.
- (f) Maintain cost savings and avoidance information documenting rationale and providing updates as savings occur or at least quarterly.
- (g) Track and report on test facility investments within NASA and DOD.
- (h) Maintain overall utilization schedules and associated metrics for NASA and DOD.
- (i) Coordinate, schedule, and disseminate material associated with lessons learned in rocket propulsion testing at NASA, DOD, and industry test sites.
- (j) Prepare Alliance annual report(s) and supporting documentation.
- (k) Maintain technology and test requirements roadmaps.
- (l) Coordinate and document semi-annual Alliance Senior Steering Group Meeting(s).
- (m) Develop presentation material and maintain history of presentations.
- (n) Provide support to the Propulsion Test Program Office outreach initiatives and meetings, developing displays and handout material.
- (o) Maintain existing web-based management information system containing all Propulsion test web site(s) for the RPTMB and the NRPTA and the information required by the Paragraph 1.6 above.
- (p) Maintain a current database of propulsion development and potential tests.

## **1.7 Develop Customer Outreach**

### **SSC Only**

- (a) Develop test prospects, multi-site outreach plans, strategic business interests, standardized business plans; support and prepare conferences.
- (b) Develop and coordinate customer agreements as assigned and in a proprietary manner as described in the appropriate contract clauses.
- (c) Develop and maintain test capability handbook for SSC and MSFC as required by DRD PT08.

## **1.8 Formulate Test Project Concepts**

### **SSC Only**

Formulate test project concepts including project concept development, requirements definition (Phase 0 PRD), cost estimation and analysis, as well as, decision packages for project authorization. Test project estimates will include a schedule and risk assessment

with potential schedule and cost impacts identified using standard risk based scheduling tools. A cost phasing plan (Budgeted Cost of Work Scheduled) BCWS, shall be submitted with the project estimate and will serve as the basis for comparison and BCWP calculation from section 1.4. ROM cost estimates will serve as the initial input for the potential customer but will be refined using the Cost Analysis Requirements Description (CARD) process for final submittal for negotiation and approval. Coordinate with appropriate NASA managers on the following new customer activities:

- (a) Documentation processing
- (b) Site orientation
- (c) Identification of technical points of contact
- (d) Access to propulsion test facilities and services
- (e) Development of quotes/proposals
- (f) Development of requirements documents
- (g) Conduct and document special studies such as: feasibility, make or buy, trade, and other related studies
- (h) Draft customer agreements

(End of Section 1)

## **Section 2.0 Test & Engineering Core Capability**

The test and engineering core capabilities as described in this section are those which are necessary to maintain a test capability at MSFC and SSC, independent of whether there is an active test program or not.

### **2.1 Engineer, operate, maintain, and manage test core capabilities**

Engineer, operate, maintain, and manage test core facilities and critical processes defined in subsequent paragraphs and listed in Attachment J-10 (List of Government Furnished Property). These activities shall be closely coordinated with test operations in order to ensure minimal impacts to test conduct.

NASA expects the Contractor to take full responsibility for any systems or functions they are assigned in this section (Section 2). All necessary planning, engineering, configuration control, operations, and maintenance are included at SSC. Only configuration control, operations, and maintenance are included at MSFC. The Contractor is an integral member of a test team with the government, and expected to be a champion on issues related to core capability. The maintenance responsibilities, relative to all Contractors, are specified in the Stennis Operations Maintenance Responsibilities Document (SOMRD), and MSFC Test Directorate/Center Operations Directorate (TD/COD) responsibility agreement.

Core facilities support test operations activities, requiring the provision of services during any scheduled work period. Specific test projects may require both operations and maintenance of core facilities to be performed outside normal shifts. Although some maintenance will need to be performed outside normal shifts, most operations will only be required within that time. For example the high-pressure gas facility at Stennis may have to be operated outside of those parameters to assure minimum pressures needed for test requirements and system maintenance. Core operations for direct test support, other than high-pressure gas, will be demand services.

#### **2.1.1 Plan, procure, receive, and handle consumable propellants and pressurants (DRD PT05)**

##### **2.1.1.1 Provide Propellants Management for propellants and pressurants**

###### **MSFC Only**

This activity is provided by COD propellants and pressurants contracts. The TOC shall collect and consolidate yearly long range propellant forecast sheets provided by MSFC Test Engineers.

###### **SSC Only**

Manage and coordinate propellant and pressurant requirements and logistics. Provide long-range forecasting, ordering, coordination of delivery, transport scheduling, certification, acceptance, storage, and distribution of propellants and pressurants, both

gas and cryogenic. Ensure the required quantity and quality of commodities is available at each test facility.

This effort requires close coordination with NASA, NASA's test article Contractors, other NASA centers and other NASA support Contractors. Submit reports of forecasted propellants requirements and propellants and pressurants usage in accordance with DRD PT06.

The commodities currently involved are: liquid and gaseous oxygen, liquid and gaseous hydrogen, liquid and gaseous nitrogen, air, high pressure gaseous nitrogen, high pressure gaseous hydrogen, high pressure gaseous oxygen, high pressure gaseous helium, hydrocarbon based fluids (i.e. RP-1, JP-8, JP-4), triethylaluminum-triethylborane (TEA/TEB), and hydrogen peroxide from medium to high concentrations.

#### **2.1.1.2 Operate and maintain propellant and pressurant systems**

##### **MSFC Only**

Operate and maintain the cryogenic, RP1, TEA/TEB, and propellant receiving, storage, and delivery systems. This shall include offloading commodities from delivery trucks into storage at all test facilities. This does not include operation of transport trailer valves.

Maintain pressurant and propellant systems for all test stands downstream of defined interface points per document TD/COD Responsibility Agreement.

##### **SSC Only**

Operate and maintain the cryogenic propellant and pressurant receiving, storage, and delivery systems. This shall include offloading cryogenics from delivery trucks into bulk storage and all test facilities. It also includes the operations and maintenance of six (6) liquid oxygen barges and three (3) liquid hydrogen barges used for bulk delivery to the A and B complexes, as well as JP8, RP1, TEA/TEB, hydrogen peroxide and all other propellants in use at SSC. Barge transportation provided through the FOS contract. Coordination of delivery of barges to the test complex is the responsibility of the TOC.

#### **2.1.1.3 Operate and maintain high pressure gas systems**

##### **SSC Only**

Operate and maintain the high-pressure gas system used to create and distribute high-pressure gases throughout the facilities. This includes bulk storage tanks, compressor units, pump units, vaporizers, distribution lines with associated components, tube bank trailers and remote gas storage bottles and equipment. The Contractor will support the pressure vessel/system certification program in accordance with NASA standards. The gases generated and distributed are: hydrogen, nitrogen, helium, and air.

### **2.1.2 Operate and maintain high pressure industrial water systems (HPIW) required for deluge and fire suppression**

#### **MSFC Only**

Operate and maintain the HPIW systems on all test stands downstream of defined interface points per document TD/COD Responsibility Agreement.

#### **SSC Only**

Operate and maintain, including overhaul, these HPIW systems: three deep wells, the canal pumping system, the storage reservoir, ten diesel driven pumps, two electric-driven pumps, and the distribution systems supplying industrial water to the test complex.

### **2.1.3 Track, monitor, and install mechanical and electrical components to meet test needs**

#### **MSFC Only**

Assure all components used within assigned systems are maintained, tracked, and installed as required in NASA and MSFC standards. Maintain a database of all components requiring periodic maintenance or calibration as required in MSFC standards and notify appropriate government employees of impending due dates to avoid impacting test operations. Serve as calibration point of contact per MSFC MPG 8730.5B

#### **SSC Only**

Assure all components used within assigned systems are maintained, tracked, and installed as required in NASA and SSC standards. Implement procedures and policies addressing the maintenance, specification, and use of components to provide maximum efficiency and safety. The Technical Services Contractor (TSC) located on site at SSC will provide component calibration services for all system components. All changes from current policies, procedures, and programs will be coordinated with and approved by NASA before implementation.

Maintain existing database of all components requiring periodic maintenance or calibration as required in SSC standards and notify appropriate Government personnel of impending due dates to avoid impacting test operations.

### **2.1.4 Manage test data, including delivery, storage, dissemination, and archiving**

#### **SSC Only**

Manage data products produced during test activities and/or the operation of core functions. Store and transmit data in a consistent and organized manner using NASA and SSC standards. Data is defined as low speed, high speed, video, and photographic data. Disseminate and transmit data according to project requirements. Ensure data security, including protection of proprietary data and information, according to NASA and SSC Information Technology (IT) standards, DRD PT03 and PT07. The contractor will be provided data storage and retrieval, LAN administration, system administration, and all desktop computing services.

### **2.1.5 Operate and maintain emergency power generators to provide emergency backup power**

#### **SSC Only**

Operate and maintain the emergency power generators located in Building 4400, including the electrical distribution system within the facility to insure backup power as necessary. The emergency generation system consists of four diesel-driven generators and associated switchgear, controls, and instrumentation. Conduct operator preventive, predictive and corrective maintenance, including the management of equipment overhaul, calibration, and configuration control of the facility. Detailed coordination with test operations and the Facilities Operations and Support Services Contractor (FOSC) is required in performance of these functions. Interface with the 13.8 Kv power transmission system is identified in the SOMRD document. Provide services to support the Cogenerations Agreement with Mississippi Power Company in accordance with documents on file with SSC Acquisition Management Office.

### **2.1.6 Perform test stand operator maintenance and integrate all maintenance activities**

Perform test stand operator maintenance as required by standard operating procedures (SOP) or other work authorization documents. This requirement also includes the integration of all maintenance activities at the facilities covered under this contract. Coordinate maintenance within each facility and between facilities for maximum efficiency and minimum downtime. Coordinate maintenance performed by other Contractors at the facilities for which they are responsible or as directed by NASA engineers.

#### **MSFC Only**

The systems for which the TOC is responsible are identified in the TD/COD Responsibility Agreement. Operator maintenance includes East and West Test Areas.

#### **SSC Only**

The systems for which the TOC is responsible are identified in the SOMRD document. All preventive maintenance (PM) at SSC is to be tracked and scheduled using a Computerized Maintenance Management System (CMMS). The MAXIMO system is the current CMMS at SSC and is administered by the FOSC.

The TOC shall establish a central work control center for receiving, scheduling, tracking and reporting of all preventive maintenance and repair work.

Preventive maintenance work orders will be generated in the FOSC administered Computerized Maintenance Management System (CMMS) and sent to the TOC on a weekly basis. The TOC will be responsible for scheduling each PM by entering the appropriate scheduling dates in to the CMMS. The CMMS will use this scheduling information to generate a schedule of maintenance activities in the test complex.

The TOC will be responsible for creating work orders in the CMMS for any repair work/corrective maintenance (CM) of equipment/systems managed by the TOC. [i.e. The TOC is defined as the System Manager for such equipment/systems in the System

Operation and Maintenance Responsibility Database (SOMRD).] Again, the TOC will be responsible for scheduling each CM by entering the appropriate scheduling dates in to the CMMS.

The TOC will also be responsible for the input and update of data, in the CMMS, required for the tracking of maintenance and repair work. Such data shall include equipment number, completion date, labor hours and descriptive comments that detail the scope of work performed.

**2.2 Maintain and operate the existing secure configuration management and control system for all test projects, facilities, systems, subsystems, and components for each site**

Maintain and operate current configuration control systems. Activities will include operating configuration management systems, support configuration management boards and sub-boards, cross organization and Contractor coordination for planning, system and documentation auditing, review, problem identification, and resolution. Submit a Configuration Management Plan in accordance with DRD CM01 delineating the policies, processes, procedures, and improvements used for configuration management. The Contractor will assess and recommend feasibility of consolidating Configuration Management Systems at both sites.

**MSFC Only**

The existing MSFC configuration control system is based on utilization of existing Work Authorization Tracking System (WATS). WATS is an electronic work order (TPS) generation, routing, approval, and tracking system that runs on PC-based local area networks and is maintained by another Contractor. Use this system to track open work orders and generate reports of open items for Test Readiness Reviews as required.

Performance shall be in accordance with Technical Document (TD70-003), "Test Preparation Sheet Instructions."

**SSC Only**

SSC currently uses a system based upon the commercial software Windchill and the Site-wide Operational & Repair Documentation (SORD) system. All drawings, designs, and/or models must be compatible with the latest production release of the SSC Design and Data Management System (DDMS). The Contractor, utilizing the Windchill environment, shall provide electronic access to all controlled data generated, appropriately marked, in digital form, to a specified number of users, through the DDMS. The Contractor must interface with the Windchill based Government DDMS to facilitate controlled unclassified real-time information exchange between multiple locations at a rate of transmission that does not limit the ability to exchange data. The Contractor will establish a collaborative environment to support NASA insight into analysis, design and engineering, test and evaluation, training, experimentation and other areas as required. All data contained within this system is the property of NASA and will remain with NASA at termination of contract.

Assist/support the Government in populating DDMS with contents Engineering Drawings, operational procedures, safety analysis, configuration management,

component information and any additional information that is used in support of this contract. Configuration control and storage of any analyses, reports, drawings, designs, and/or models produced under this contract must utilize the SSC DDMS and adhere to NASA-STD-2817, "Computer-Aided Engineering, Design And Manufacturing Data Interchange And Application Programming Interface Standards."

### **2.3 Develop and maintain documentation utilizing existing systems**

#### **MSFC Only**

Provide documentation services in compliance with the requirements of MPG 1440.2, "MSFC Records Management Program", TD70 – 003, "Test Preparation Sheet Instructions", and TD70 – 004, "Test Procedure Instructions." Provide documents to support investigations and impounding of data and records as required.

#### **SSC Only**

To the maximum extent possible use existing SSC documentation and systems. Develop and use necessary documentation such as operating plans and procedures, maintenance and operating instructions, and other types of work instructions.

All documentation and the document index will be developed, managed, and maintained in accordance with SPG 1400.2, Stennis Document, Numbering System (SDNS) User Guidelines, and Management Guidelines and Standards and Stennis System Level Procedure (SSLP)-1410-0001, Documentation and Data Control.

Plans, manuals, reports, and procedures must conform to NASA standards. Included within these documents shall be detailed scientific and engineering language, charts, graphs, specifications, cost estimates, and drawings. Maintain, archive, and store all such documentation in the NASA Central Engineering Files, which is maintained by the FOS Contractor.

File, maintain, store, retrieve, and disposition records, such as test data, test readiness reviews, pretest reviews, open end item status reviews, test article data packages, video, and still photography.

### **2.4 Develop and maintain analytical tools and methodologies**

#### **SSC ONLY**

Analytic models of test facilities, systems, and STE are required to perform the engineering design and analysis functions described in Section 3.2 to ensure safe and predictable test operations. Use of a broad range of analysis tools and design and analysis methodologies will be necessary. The Contractor will be required to develop, maintain and use existing analytic models that describe and evaluate the test systems here at SSC. There are two distinct fidelity levels of the analytic models employed in normal/typical test project work:

- High fidelity (detailed spatial and temporal analytic description of applicable physical processes coupled with an accurate detailed definition of applicable initial and boundary conditions) models predicting and reconstructing the physical

processes experienced by the interaction of Rocket Propulsion Test (RPT) facility hardware, propellants and test system operations, and

- Low fidelity and or quick turnaround analytic models and processes supporting preliminary/ROM test system sizing and performance assessments propellant/fluid processes.

Develop and maintain documentation of the analytic tools and utilization/application methodologies used in executing the engineering design and analysis tasks. This documentation will include a technical description of the analytic tool, its application in test systems design and analysis, and the procedure for this application.

Demonstrate applicability and adequate validation of the analytic tools used in the test systems design and analysis tasks described in Section 3.2 of this PWS. Analytic tools, models, documentation, and validation results developed during performance of this PWS are the exclusive property of NASA.

## **2.5 Identify, evaluate, and adapt new test technology and systems to continually improve propulsion system ground testing**

Develop test technology, including identification, evaluation and adaptation of new technology and systems to continually improve system ground testing and related processes. These systems will be developed for use in real-time operation and control of ground test systems. Working with NASA:

- (a) Provide advanced planning to maintain NASA's testing capabilities at the leading edge of propulsion test technology
- (b) Provide or support technology activity that improves ground test operations with cryogenic systems and high-pressure gas systems
- (c) Sustain and enhance capabilities in plume effects predictions and monitoring, particularly with respect to test stand safety and operability
- (d) Support the development, evaluation, and deployment of new sensor systems, instrumentation systems, automated control systems, real-time facility modeling and characterization, distributed data networks, health monitoring systems, and other systems applicable to ground testing
- (e) Support the assessment and infusion of applicable new technologies into propulsion testing in those areas of science and engineering that are at the present limits of commercial availability.
- (f) Collaborate with other technology development organizations, both external and internal to this contract
- (g) Provide a "new technology" review summary

**2.6 Plan, evaluate, engineer, and support construction of test facility modernization and improvements****SSC Only**

Provide Construction of Facilities (CoF), modernization, and maintenance project inputs consisting of a prioritized listing with one-page justifications for each project. CoF shall conform to the same reporting standards as test project and maintenance as described in sections 1.4, 1.8, and 2.1.6.

Provide operational support required to properly implement these improvements. This consists of attending design reviews and interfacing with civil servant and construction personnel.

**2.7 Provide a comprehensive plan to operate and maintain core capability**

Provide a comprehensive operation and maintenance plan for core capabilities in accordance with DRD PT09. Specify an approach for meeting the minimum requirements. Identify and propose consolidation opportunities, innovations, and efficiencies realizable by using expertise and resources made available across test facilities and centers. The plan will also address management objectives to consolidate NASA's test operations business practices. Include a prioritized schedule of specific initiatives, supported by rationale emphasizing standard procedures throughout the process.

(End of Section 2)

## **Section 3.0 Test Project Implementation and Test Performance Capability**

The test capabilities as described in this section are those necessary to develop, construct, and operate test systems required for successful completion of a test program. This includes project management, project management support, scheduling, system design, construction, activation, pre-test activities, testing, and post-test activities. This work is performed as part of an integrated team with NASA and test article Contractors (customers). The level of Contractor participation for an individual project varies depending on the project's scope and scale.

### **3.1 Support, Schedule, and Manage projects**

#### **SSC Only**

Provide project management support, project scheduling, and overall project management for test programs. The majority of this requirement is for project management support and scheduling, but the capability for total project management should be available. Detailed descriptions of these requirements are specified in paragraphs 3.1.1 through 3.1.4.

#### **3.1.1 Develop Project Plans**

##### **SSC Only**

Develop and submit written plans for new projects in accordance with the work request. Plans may include:

- (a) Test requirements
- (b) Work breakdown structure (WBS)
- (c) Organizational Breakdown Structure (OBS)
- (d) Final detailed cost estimates for test projects and /or facility upgrades
- (e) Preliminary planning estimates for new business development
- (f) Expenditure projections
- (g) Description of work effort
- (h) Workforce loading
- (i) Detailed schedules
- (j) Any project unique requirements
- (k) Documentation and written revisions for any project plan changes

#### **3.1.2 Provide project management and systems integration engineering support**

##### **SSC Only**

Participate with the Government in the planning of test operations and work phasing in order to prepare for full and continuous support to test customers. Review and make

programmatic recommendations to meet propulsion test project requirements on schedule. Review and support includes:

- (a) Project manager/project engineer support
- (b) Systems integration engineering support
- (c) Policy development, documentation, and implementation support
- (d) Programmatic and technical issues development and resolution
- (e) Business management practices development and implementation
- (f) Coordination of engineering analysis
- (g) Development of Rough Order of Magnitude (ROM) cost estimates
- (h) Coordination of preliminary designs including all safety and environmental aspects
- (i) Participation with the Government in technical discussions with potential test customers to refine test requirements
- (j) Project tracking with approved tools in required frequency
- (k) Management of test documentation in accordance with site-specific standards

### **3.1.3 Manage projects**

#### **SSC Only**

Provide project management for specific projects. This includes the responsibility for the compilation of all requirements and information necessary to complete a Project Requirements Document (PRD) as specified in SSC SOI-8080-0004. Also included is responsibility for assuring all requirements established in the PRD are met and continue to be met for the life cycle of the project.

### **3.1.4 Schedule and integrate projects**

Schedule and integrate all project activities and resources (Budgeted Cost of Work Schedule, BCWS) at all test locations. Integrate all activities including special test equipment fabrication, test position buildup, hardware delivery, pre-test procedure development, installation of test hardware, test, and facility refurbishment. The scheduler is responsible for coordinating across all functional elements to assure test project schedules are complete and status provided weekly. Interfaces will include fabrication personnel, test project engineers, instrumentation and measurement system engineers, control engineers, and the test requestors. This requirement shall be in electronic format using Microsoft Project 2000.

#### **MSFC Only**

Perform scheduling and integration in accordance with TD70 work instructions, TD70 – 006, “Test Project Scheduling.” Track and monitor test project cost estimates.

#### **SSC Only**

Perform scheduling and integration in accordance with SSC-SOI-8080-0003, “Project Scheduling System.”

### **3.2 Design and analyze test systems**

Design, analyze, and integrate a broad range of test systems to accommodate testing and associated research and development activities.

#### **3.2.1 Design and analyze mechanical systems**

##### **SSC Only**

Provide mechanical design and analysis of test facilities and facility operational performance. The scope of this effort includes system design and analysis of cryogenic, non-cryogenic, vacuum to ultra high-pressure (15000 psi) propellant storage, run, distribution, and disposal systems for existing facilities, Special Test Equipment (STE), and Ground Support Equipment (GSE). These systems are composed of propellant and pressurization system tanks and delivery systems, test article thrust measurement, thrust restraints, propellant ignition, component hydraulic and pneumatic actuation, environmental and test article purge systems and related water deluge, and other ancillary and support systems.

Provide specialized engineering services required for test system design and analysis, and in particular, knowledge, expertise and analysis capabilities in cryogenic systems engineering, from vacuum to an ultra high pressure (UHP) regime and related fluid/structural phenomena, such as flow induced vibration and fluid hammer. Specialized analytical capabilities in steady state, transient, and dynamic modeling of reacting and non-reacting flows are required.

Provide engineering support during test operations, including real time activation test support, post-test data analysis, propellant discharge plume diagnostics, acoustic monitoring, radiometric monitoring, thermal imaging, and other special and unique measurements.

##### **3.2.1.1 Design and analyze propellant systems**

Provide cryogenic systems engineering in a test environment, from ambient to a UHP regime. The primary cryogenics in use at the test facilities are liquid oxygen (LO<sub>2</sub>), liquid hydrogen (LH<sub>2</sub>), and liquid nitrogen (LN<sub>2</sub>).

Provide non-cryogenic fluid systems engineering in a test environment. The primary non-cryogenic propellants used at the test facilities include hydrogen peroxide (H<sub>2</sub>O<sub>2</sub>), rocket propellant (RPx), jet propellant (JPx), various alcohols as well as hydroxyl terminated polybutadiene (HTPB), and similar solid fuels. Design and analysis of test article propellant ignition systems will be required. TEA/TEB, O<sub>2</sub>/H<sub>2</sub>, O<sub>2</sub>/RP, H<sub>2</sub>O<sub>2</sub>/RP catalyst systems are typical systems used at SSC.

##### **3.2.1.2 Design and analyze pressurant and purge systems**

Provide ambient temperature and UHP fluid systems engineering (systems design and analysis) in a test specific environment. Test projects typically require high flow (100 – 1800 lb/sec), ultra high pressure (6000 – 15000 psi) pressurants. The primary ambient

temperature, UHP fluids in use at the test facilities include oxygen (GO<sub>2</sub>), hydrogen (GH<sub>2</sub>), nitrogen (GN<sub>2</sub>), helium (He), and high-pressure air (HPA).

### **3.2.1.3 Design and analyze components**

Provide propellant, pressurant, and purge system fluid control system design, component sizing, and component selection for a test environment. Components in test systems include, but are not limited to, valves, filters, screens, orifices, venturis, pumps, compressors, intensifiers, heaters, connectors, reducers, instrumentation (pressure, temperature, acceleration), flow meters, and similar components.

### **3.2.1.4 Design and analyze hydraulic and pneumatic systems**

Provide hydraulic and pneumatic systems design, sizing, and selection for a test environment.

## **3.2.2 Design and analyze electrical systems**

### **SSC Only**

Design and analyze electrical systems for test facilities and facility system performance. The scope of this effort includes existing facilities, Special Test Equipment (STE), and Ground Support Equipment (GSE). This effort includes system design and analysis of the electrical systems supporting test in a cryogenic, non-cryogenic, and ambient to UHP propellant environment.

### **3.2.2.1 Design and analyze data acquisition systems**

Provide design and analysis of data acquisition systems for conducting test operations. This effort includes design, selection, and integration of hardware/software systems, development and verification support for high and low speed data acquisition systems, development of software, and integration of signal conditioning, data acquisition, display, and recording systems. Knowledge and experience in the assessment of measurement uncertainty, time correlation, and system margins is also required.

Provide design and analysis of systems (hardware/software) to process acquired test data. This effort includes coding, networks, and computer systems for both dynamic and static data processing.

### **3.2.2.2 Design and analyze test control systems**

Provide design and analysis of control systems for conducting test operations. This effort includes hardware/software development and verification support for controls systems, and requires development of ladder logic, operation screens, integration with Engine Controllers, specialized equipment for valve operations, test sequencing, redline cut systems, abort design and analysis, prep complete, timing, and system margin analysis.

Provide design and analysis of systems (hardware/software) to process acquired test data. This effort includes coding, networks, and computer systems for both dynamic and static data processing.

### **3.2.2.3 Design and analyze instrumentation**

Provide evaluation and selection of dynamic and static measurement instrumentation. This effort includes instrumentation range selection, placement, measurement uncertainty analysis, cabling, signal conditioning, stress analysis, procurement specifications development, calibrations, and installation support.

### **3.2.2.4 Design and analyze ancillary systems - fire detect, video, oral warning**

Provide design and analysis of video (cameras, high & low speed), GH2, GOX, and H2O2 detection, fire detection, intercom/paging, infrared (IR) cameras, and mass spectrometer systems, specific to a test environment.

Provide design and analysis of special power, grounding, and lighting systems. For example: 28Vdc power for motor operated valve and solenoid operated valve (MOV & SOV) operation, 270Vdc for electromotive actuators (EMA), three phase camera lighting and heaters, grounding layouts for instrumentation, controls, and data acquisition and control system (DACS) equipment.

### **3.2.3 Draft designs utilizing Autocad and Pro/Engineer**

Perform schematic and solid model drafting for test facility and test project design definition utilizing commercially available Autocad and Pro/Engineer software environments.

#### **MSFC Only**

Performance shall be in accordance with TD70-005, "Procedures for Test Facility Drawings", including maintenance of Master List for all approved engineering drawings (i.e. Current revision list, etc.).

Perform configuration control of this drafting effort and maintain a historical records system in accordance with current test facility standards, work instructions, and process at the respective test site.

#### **SSC Only**

SSC drafting is defined by Stennis Work Instruction (SWI)-8820-0001, 'SSC Systems Engineering Drafting Process' and SOI-8080-0007, 'SSC Test Site Drawings.'

### **3.2.4 Conduct special studies**

#### **SSC Only**

Conduct special studies such as concept development, requirements studies, trade studies, operations research, predictive modeling, component and system failure analysis, feasibility and applicability of new methods and processes in data acquisition and controls systems, avionics and telemetry, safety engineering, risk evaluation, management, and accident investigation.

### 3.3 Fabricate and install test systems

Fabricate and install test systems and subsystems as required by each project and within the responsibility of the TOC. All fabrication and installation of test systems require close coordination with NASA and other Contractors performing construction on the same facility.

#### 3.3.1 Fabricate mechanical systems

Fabricate mechanical systems within the responsibilities of the TOC, as required for each test program. The specific types of work required consist of:

**a. Tubing**

Fabricate and install tubing consisting of field fitting of all tubing, installing appropriate connections, and connecting with all components and subsystems. Examples of this would be master facility panels, purge systems, pressurization systems, and instrumentation connect tubing.

**b. Piping and Structures**

**MSFC Only**

Fabricate and install piping consisting of field fitting, welding, NDT to include visual, NDE radiographic and penetrant inspection and by hydroproof test, and connecting with all components and subsystems. Fabricate and install structures and adapting hardware for test articles. This effort shall be performed in accordance with all applicable codes and procedures, both NASA and industry.

**SSC Only**

Piping and structures construction at SSC is performed by the FOSC and other NASA direct Contractors.

**c. Components**

Assure all required components have the proper configuration and cleanliness levels. Install required components as part of systems and subsystems for which the Contractor is responsible for construction. Examples of this would be components in master facility panels or gauges and regulators in purging systems.

**d. Vessels**

Install vessels as required for each test program. Typically, vessels are installed and certified by others. Occasionally, small specialty vessels can be installed by the TOC. The TOC is responsible for the connection of vessels to systems and subsystems as required by the specific test program.

#### 3.3.2 Fabricate electrical systems

Fabricate electrical systems as required for each test program. The specific types of work required consist of:

**a. Data acquisition systems**

**SSC: total system/MSFC: only to the signal conditioning interface.** Examples of the type of work involved would be running and terminating copper wire and fiber optic cable, building-up panels and racks, component preparation and installation fabricate and install drag-on cables. (examples include: programmable signal conditioners, amplifiers, and multiplexers), and connection with computer-based interface units.

**b. Test control systems**

Fabricate and install all control systems in facilities for which the Contractor is responsible. Examples of the type of work involved would be: running and terminating copper wire and fiber optic cable, panel and rack build-up including component preparation and installation (examples include: programmable logic controllers, event recorders, and both analog and discrete input/output devices), valve position sensors, and connection with computer-based interface units.

**c. Instrumentation**

Install all instrumentation used in facilities for which the Contractor is responsible. Examples of the type of work involved would be: Resistance Temperature Device (RTD's), transducers, transmitters, accelerometers, thermocouples, strain gauges, and load cells, along with all the required supporting hardware. Test article instrumentation is normally installed by the test article Contractors. If requested, the TOC is required to do test article instrumentation installation.

**d. Ancillary systems**

Install all ancillary systems as required in facilities for which the Contractor is responsible. Examples of instrumentation used include but are not limited to: fire detection, hazardous gas detection, low and high speed video (SSC), intercoms, oral and aural warning systems, test communication systems, area access and control systems, test warning systems, 28Vdc power for MOV & SOV operation, 270Vdc for EMA's, three phase camera lighting and heaters, and grounding layouts for instrumentation, controls, and DACS equipment.

**3.4 Activate test systems**

Activate mechanical and electrical systems and subsystems per engineering instruction as required by each program. (SSC is per SSC-SOI-8080-0041, "Project & Systems Integration") Activation is performed after construction and fully characterizes the facility, including demonstrating that facility performance meets requirements.

**3.4.1 Develop Facility Activation Plan**

Participate in and/or develop a Facility Activation Plan (FAP). The FAP verifies and validates that all facility systems are ready to meet test article customer test objectives. The FAP shall include cleanliness verification, leak checks, cold flows, data acquisition system validation, control system validation, functional tests and redline cut system validation. (Note: government employees usually develop the FAP.)

### 3.4.2 Activate mechanical systems

#### **MSFC Only**

In support of facility activation, perform mechanical system setup and safing operations for tests, verifying system readiness for test, performing testing, supporting facility or test article failure troubleshooting, and performing written instructions for maintenance and repairs. Examples of this type of work include: cleanliness verification, leak checks, and cold flows.

#### **SSC Only**

In support of facility activation, perform mechanical system setup and safing operations for tests, verifying system readiness for test, performing testing, supporting facility or test article failure or incident investigations, troubleshooting, issuing and performing written instructions for maintenance and repairs, and reviewing and validating test results. Examples of this type of work include: cleanliness verification, leak checks, and cold flows.

### 3.4.3 Activate electrical systems

#### **MSFC Only**

In support of facility activation, perform electrical system setup and shutdown operations for tests, verifying system readiness for testing, performing testing, supporting facility or test article failure or incident investigations, troubleshooting, and performing written instructions for maintenance and repairs. Examples of this type of work include: data acquisition system validation, control system validation, functional tests, and redline cut system validation.

#### **SSC Only**

In support of facility activation, perform electrical system setup and shutdown operations for tests, verifying system readiness for testing, performing testing, supporting facility or test article failure or incident investigations, troubleshooting, issuing and performing written instructions for maintenance and repairs, supporting test engineering data reduction and reviewing, and validating test results. Examples of this type of work include: data acquisition system validation, control system validation, functional tests and redline cut system validation.

### 3.4.4 Activate integrated systems

Integrated systems activation demonstrates all test systems (mechanical and electrical) are operating in unison to accomplish facility performance objectives.

#### **MSFC Only**

In support of facility activation of integrated systems, verify system readiness for testing; perform integrated system performance and shutdown operations; support facility off nominal, failure, or incident investigations; perform troubleshooting.

**SSC Only**

In support of facility activation of integrated systems, verify system readiness for testing; providing engineering analysis and corresponding expected systems performance assessments and documentations, perform integrated system performance and shutdown operations; support facility off nominal, failure, or incident investigations; perform troubleshooting; issue written instructions for maintenance and repairs; support test engineering data reduction; and review and validate test results.

**3.5.1 Conduct Test**

Operate mechanical and electrical systems and subsystems to gather data on test article performance as required by each program. Test conduct is the span of operations beginning with facility preparation and includes test article installation/integration, test conduct, facility safing, test article removal and concludes with return of the facility to pretest configuration. Operation of these systems is performed by a NASA led test team, which includes NASA, the test article Contractor, and the Contractor. Examples of this type of work include: console operations, mechanical and electrical technician operations, problem resolution (**SSC Only**), stand and system set up and safing.

**3.5.1 Conduct pretest operations**

Conduct pretest operations to prepare the facility for test in accordance with specific test project requirements and install/integrate the test article.

**3.5.1.1 Test article receipt and installation**

(Note: The test article Contractor is normally responsible for receipt and installation at SSC.) Receive and inspect test articles, check for transportation damage and parts defects and shortages, identify equipment, and verify completeness of accompanying records, transport, and install test articles into the test stand.

**3.5.1.2 Integrate test article**

Test article integration involves coordinated operations between the entire test operations team, including NASA, the test article Contractor, and the Contractor. Perform test article pretest setup and checkout, conditioning, and inspection as required. Install and remove test article instrumentation, as required.

Assist in the resolution of any performance anomaly associated with the test facility or technical issues related to test article and test facility interaction.

Clean, dry, store, package, ship, and handle test articles and their components, as required. A test article data package shall be maintained which, as a minimum, shall include a history of tests, discrepancies, repairs, serialization of parts, and time/cycle data, where applicable.

**SSC Only**

Perform test anomaly resolution as requested by NASA and coordinated with the test article Contractor.

**3.5.1.3 Setup test facility and test systems**

Prepare test facility mechanical, data, and control systems for subsequent test performance per detailed test requirements. Set up hydraulic, pneumatic, cryogenic, mechanical and electro-mechanical systems, electrical control systems including analog servo controllers, programmable logic controllers (PLCs), digital controllers, event recorders and personal computer-based equipment, per detailed test requirements. Implement FOD control program.

Install measuring transducers and assure pretest systems calibration per detailed test requirements.

Checkout and verify instrumentation and data acquisition systems installation per detail test requirements. Set up instrumentation front end equipment.

Diagnose and troubleshoot problems associated with facility mechanical systems involving valves, regulators, filters, relief devices, gauges; control problems within the test facility control systems. Diagnose and troubleshoot problems associated with sensors, cabling, and front end signal conditioning equipment, and assist in diagnosing end to end instrumentation systems involving standard electronic test equipment.

Set up instrumentation front-end signal conditioning equipment and (SSC only) data acquisition systems tests per detailed test requirements.

**3.5.1.4 Conduct all-up Firing Readiness Test**

Perform or support (as required by NASA) a firing readiness test (FRT) with the facility and test article in final configuration. The FRT consists of complete systems operations less propellant flow with data and control systems operation.

**SSC Only**

The FRT results will be analyzed by the Contractor to ensure facility and systems are performing as required.

**3.5.1.5 Conduct Test Readiness Review****MSFC Only**

Keep test readiness review (TRR) records per TD70-015, "Test Readiness Review for Hazardous Operations".

**SSC Only**

Prepare and present material at the test readiness review in support of NASA and the customer, substantiating readiness to continue with the test phase. All open items and discrepancies will be reviewed and dispositioned. The review will be in accordance with SOI-8080-0041 "Project And System Integration."

### **3.5.1.6 Present documentation for Facility Operational Readiness Reviews**

#### **SSC Only**

Participate in various reviews as requested by NASA including Operational Readiness Inspections, Safety Review Teams, and Independent Investigations. The level of participation and responsibility will typically be as an area expert reviewing project designs, procedures, and documentation to reach an independent assessment as to the risk of proceeding with test. Provide technical and administrative support in assembling information required by the review teams.

### **3.5.1.7 Operate and manage all ground support equipment (GSE) (supplied by hardware Contractor) required to support Test Operations**

#### **SSC Only**

As a project team member, operate and manage the development of test requirements, GSE design reviews, and performance of independent analyses of GSE used for test operations. GSE is defined as the hardware provided by a test article Contractor, primarily to support a flight system at multiple locations. The equipment includes but is not limited to transporters, slings, hoists, dollies, lift beams, covers, access stands, handling fixtures, as well as equipment required for inspection, test and checkout of the flight system.

### **3.5.2 Conduct test**

Test is activity performed in accordance with the center specific work authorization system from the successful FRT (if required) and is considered complete after the facility and test article are safed.

#### **3.5.2.1 Load and condition propellant systems**

Load propellant run tanks to the required level; and condition propellants, run systems, and test article to required temperatures per specific test instructions.

#### **3.5.2.2 Conduct final facility test setups**

Conduct any final facility adjustments such as master facility panel settings and data system changes as required by specific test instructions and as indicated by FRT's.

#### **3.5.2.3 Operate test systems**

The current and anticipated facility systems to be operated by the Contractor are those for liquid propulsion test systems, hybrid propulsion systems, solid propulsion test systems, cryostructural systems, and altitude test chamber systems assigned to SSC and MSFC.

**MSFC Only**

Operate test systems and related equipment safely and efficiently in support of test requirements. All work shall be completed in accordance with NASA guidelines, MSFC Management Instructions, and Operating Instructions, i.e. Test and Checkout Procedures (TCP) Facility Operating Procedures (FOP). Examples of the type of work required include: facility console operator, anomaly resolution technician activity, access control, and technician test crew and pretest safety walk-downs.

**SSC Only**

Operate test systems and related equipment safely and efficiently in support of test requirements. All work shall be completed in accordance with NASA guidelines, SSC Management Instructions and Operating Instructions. Examples of the type of work required include: low speed data console operator, high speed data console operator, facility console operator, video operator, anomaly resolution engineering and technician activity, access control, and technician test crew.

**3.5.2.4 Secure and safe test facility and test systems**

Secure the test facility and systems after each test, placing each system in a safe mode as directed by the test operations engineer or work authorization document. In the event of an off nominal condition before, during or after the test, implement contingency procedures to secure and safe the test facility and systems.

**3.5.3 Conduct post test operations**

Conduct post test operations after the test is completed and the facility is safed.

**SSC Only**

Examples of this work include: data processing, data review, data transmittal, storage and retrieval of data, and disposition of test article and associated equipment in accordance with specific test project requirements.

**MSFC Only**

Examples of this work include: disposition of test article and associated equipment in accordance with specific test project requirements.

**3.5.3.1 Process and transmit data****SSC Only**

Process and transmit all test data according to requirements specified in the PRD. Protect processed data from security and proprietary perspectives in accordance with the Data Handling Plan.

**3.5.3.2 Analyze data****SSC Only**

Analyze all facility and test article data for accuracy and validity, and quantify and certify test/measurement accuracy. Identify data channels that are invalid and recommend corrective action

### **3.5.3.3 Review data**

#### **SSC Only**

Provide processed facility and test article data in the required formats. With NASA and the customer's participation, review and evaluate the data to determine test outcome and to prepare for subsequent testing.

### **3.5.3.4 Inspect test article and facility at the conclusion of each test**

Inspect the test article and facility at the conclusion of each test or test series as required by each program. Inspection should include checks for cracks or leaks, loose or broken mechanical and electrical connections, loose debris, or any other condition indicating a safety or technical problem. Document all anomalies with a Discrepancy Report at SSC or a QTPS at MSFC.

### **3.6 Conduct Test Project Closeout/Review**

Review the accomplishments at the conclusion of each test program. Review the PRD to assure all desired goals have been met. Close all open work documents.

#### **3.6.1 Prepare final reports**

##### **SSC Only**

Prepare a final report at the conclusion of each test program reviewing and substantiating the measured results of project testing relative to the requirements defined in the PRD. Identify all STET. Address any requirements not met.

(Note: The Project Manager or test requester, who is usually a NASA employee, normally performs this task.)

#### **3.6.2 Conduct customer surveys**

##### **MSFC Only**

Develop and maintain customer survey database to track results and implement corrective actions.

##### **SSC Only**

Conduct customer surveys as required by the appropriate SSC SOI-8080-0006, "Development and Approval of Customer Agreements."

(Note: The Project Manager, who is normally a NASA employee, usually submits these.)

#### **3.6.3 Disposition test article and customer furnished equipment**

Disposition all equipment provided by the test article Contractor as required. This may include the test article and any other equipment provided as part of the test program. Proper packaging, documentation, and shipping are critical. Any special instructions will be provided by the test article Contractor to the Government and transmitted to the TOC Contractor.

**3.6.4 Gather and incorporate lessons learned and corrective actions**

As part of the test activity, gather and incorporate any lessons learned into daily operations. Support the identification and submittal of new lessons learned through the Rocket Propulsion Test Management Board. Complete any corrective actions identified during the gathering of lessons learned.

**3.6.5 Reconfigure test facility and systems**

Return the test facility and its systems to a configuration as specified by NASA engineering instruction. This includes the removal of any hardware installed specifically for a program and the reconfiguration of the test facility. The scope will vary depending on the specific program and future programs.

(End of Section)

**PART III - LIST OF DOCUMENTS, EXHIBITS AND OTHER ATTACHMENTS**

**ATTACHMENT J-2**

**DATA PROCUREMENT DOCUMENT**

**INTRODUCTION**

1. SCOPE

This Data Procurement Document (hereinafter called DPD) is the basic contract document that shall govern all data required by and for the Test Operations Contract. The Contractor shall furnish all data described by the Data Requirements listed on the Data Requirements List hereinafter called DR's and DRL, attached hereto and 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.

2. DESCRIPTION

This DPD consists of a Statement of General Requirements, the DRL, and DR's.

2.1 Statement of General Requirements (SGR)

The SGR prescribes those general requirements applicable to the preparation, maintenance, and delivery of data that are better defined in aggregate than in the individual data requirements documents.

2.2 Data Requirements List (DRL)

Throughout the performance of the contract, the DRL at all times provides a complete listing of the data requirements of the contract. The DRL is not presented as an entity, but rather, is segmented into separate categorized listings that precede each section of DR's (See Paragraph 2.3).

2.3 Data Requirement (DR)

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

For the purpose of classification and control, DR's are grouped into the following broad functional management categories:

<u>CATEGORY SYMBOL</u>	<u>DESCRIPTION</u>
CM	Configuration Management
EN	Environmental
LS	Logistics/Support
MA	Program Management
MF	Manning and Financial
PC	Procurement/Contracts
PT	Propulsion Test
SA	Safety and Mission Assurance

The symbol representing these categories forms the prefix of the DR identification number. To facilitate the usage and maintenance of the DPD, the DR's have been sectionalized in accordance with these data categories.

Each section contains all DR's within a specific data category. The DR's are filed in numerical sequence and are listed on a DRL page (or pages) that precedes, and is part of, the section.

3. Maintenance

Revisions to this DPD shall be accomplished by contractual direction (e.g., Change Order, Supplemental Agreement).

**STATEMENT OF GENERAL REQUIREMENTS**

**1.0 GENERAL DATA REQUIREMENTS**

1.1 Deferred Delivery

NASA reserves the right to reasonably defer the dates of delivery of any or all data required to be submitted by this DPD. Such right may be exercised at no increase in the contract amount. In the event that NASA defers delivery of a data item, resulting in a cost impact to the total contract cost, the contract amount shall be subject to equitable adjustment in accordance with the contract clause entitled "Changes".

1.2 Excusable Delays

The validity of the data delivered hereunder is directly dependent upon the validity of the technical data made available by the Government. When non-availability, delayed availability or subsequent revision of the pertinent technical data result in delayed delivery of the required data, then such delay shall be deemed to be subject to the Government Property clause of the contract.

In the event contractual submittal dates are not met by the Contractor due to the non-availability or delayed availability of Government Furnished Services, or due to any other cause within the control of the Government, then such delay shall be deemed to be subject to the Government Property clause of the contract.

1.3 Cost of Data

Except as otherwise provided in this contract, the cost of data to be furnished in response to this DPD is included in the total cost of this contract and shall be reimbursed in accordance with the Schedule of the Contract.

#### 1.4 Data Not Required by the DPD

Data generated within the normal course of the contracted work, and not a part of the data required by DPD, shall be made available in accordance with the requirements of this contract.

#### 1.5 Referenced Documents

Documents referenced in this DPD are those in effect at the time of contract award, unless otherwise specified, and form a part of the DPD to the extent specified herein.

### 2.0 DOCUMENT PREPARATION STANDARDS

#### 2.1 Contractor's Internal Documents

Insofar as practicable, the Contractor's internal documents shall be used to meet the data requirements of this DPD. These documents shall not be rewritten for the sake of meeting the minimum requirements as specified in the applicable DR. In instances where minor differences in content and format exist between DPD requirements and Contractor's document, action will be taken to resolve these differences and, where appropriate, a change in requirements will be effected.

#### 2.2 Document Identification

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 by the Contractor. Documents submitted in response to the data requirements of the DPD, that are to be subsequently published by NASA, shall be identified as prescribed by NASA. All document submittals shall be clearly marked with the contract number and applicable DR number except that Drawings and Engineering Change Proposals (ECP's) need not include applicable DR Number. Documents that satisfy the requirements of more than one DR shall be marked with all applicable DR numbers. Successive issues or revisions of documents shall be identified in the same manner as the basic issue and shall include appropriate change identification.

#### 2.3 Reference to Other Documents in Data Submittals

References to other documents in documents submitted in response to the data requirements of the DPD are permissible. Referenced documents must be adequate and include such identification elements as title and number. When a document to be referenced would only be applicable to a minor or limited extent, every effort shall be made to include the applicable information in the response document rather than using the reference. All referenced documents shall be made readily available to the cognizant NASA organization upon request.

## 2.4 Printing Requirements

Printing of formal reports and data in book format shall be in accordance with the following general specifications:

- (a) Finished size - 8 1/2" X 11"
- (b) Paper - 20 pound opaque bond
- (c) Pages will be printed on both sides, blank pages will be avoided when possible
- (d) Oversize pages will be avoided when possible, but if necessary will be folded to 8 1/2" X 11"
- (e) Additional color shall be used only upon written approval by the Contracting Officer Technical Representative.
- (f) Binding shall be the most economical method commensurate with the size of the report and its intended use.

## 2.5 Maintenance of Documents

- 2.5.1 Revisions to documentation may be accomplished either by individual page revision or a complete reissue of the document, with the exception of drawings that shall be revised in accordance with minimum Configuration Management Requirements.
- 2.5.2 Individual page revision shall be made as deemed necessary by the Contractor or as directed by the Contracting Officer.
- 2.5.3 The document shall be completely reissued when in the opinion of the Contractor and/or Government 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 a document shall be brought up to date.
- 2.5.4 Changes of a minor nature to correct typing errors, misspelled words, etc. shall only be made whenever a technical change is made, unless the accuracy of the document is affected.
- 2.5.5 All revised pages shall be identified by placing a revision symbol and data in the upper right-hand corner of the page. Each document shall contain a log or revised pages that will 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 in the margin of the page, and the change authority shall be indicated adjacent to the change.

- 2.5.6 Contractor reports shall not be submitted containing pen and ink markups that correct, add to, or change the text, unless schedule problems exist and approval is obtained in writing from the Contracting Officer Technical Representative. Such markups, however, shall not exceed 20% 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 artwork. Acceptability will be determined by the Contracting Officer Technical Representative performing the quality inspection function.

**RFP 13SSC-O-02-38 DRD MASTERLIST**

DRD Total: 35

**CM Configuration Management**

- 01 Configuration Management Plan

**EN Environmental**

- 01 (Air Emissions)

**LS Logistics/Support**

- 01 (Government Property Management Plan)

**MA Program Management**

- 01 [Reserved]
- 02 (List of Owners, Officers, Directors & Executive Personnel)
- 03 (Personnel Report-Wage Determination)
- 04 (Emergency Plan)
- 05 (EEO)
- 06 (Contract Performance Progress)
- 07 (Handling of Data Plan)

**MF Manning and Financial**

- 01 (Financial Mgmt, 533M & 533Q)
- 02 (Monthly Workforce)
- 03 (Resources Mgmt)
- 04 (Cost of Operations)
- 05 (SSC Mgmt Accounting System)
- 06 (RFMAS/FACS)
- 07 (Cost Exceeding 100% summary)
- 08 (Occupational Health Program Cost)
- 09 (Cost & Services Allocation)

**PC Procurement/Contracts**

- 01 [Reserved]
- 02 (Subcontract Litigation)
- 03 (Patent & Copyright Infringement)
- 04 (Liability to Third Party)
- 05 (Insurance)
- 06 (Subcontracts)
- 07 (Patent Application)

**PT Propulsion Test**

- 01 (5 year Equipment Plan)
- 02 [Reserved]
- 03 (Automated Information Security Incident)
- 04 [Reserved]
- 05 (Propellants & Pressurants Plan)
- 06 (Propellants & Pressurants Forecast)
- 07 (Automated Information Security Plan)
- 08 (Test Capability Handbook)
- 09 (Core Capability Plan)

**SA Safety and Mission Assurance**

- 01 (Personnel Certification Plan)
- 02 (Safety & Health Plan)
- 03 (Mishap Report)
- 04 (Mission Assurance Plan)

DATA REQUIREMENT

DR Number, Date Revised

CM01

Contract Number, Date, &  
Modification No.

TOC  
Effective:

Title

Plan, Configuration  
Management

Responsible Office

RA00

P.W.S. Reference

2.2

SUBMITTAL REQUIREMENTS

Distribution Instructions

NASA Contract Deliverable System  
Approval: BA31 Contracting Officer  
Concurrence:  
Information – HA20 Contracting Officer Technical Representative  
AA00, BA20, BA30, CA00, HA00, QA00, RA00, and VA00

Initial Submittal Date

90 days after start of the contract.

As of Milestone

End of month.

Frequency of Submittal

Yearly, updated as required

DATA REQUIREMENT DESCRIPTION

Purpose

To describe and outline methods used in assuring proper configuration identification, control and accounting of government resources, programs and projects.

Scope

This DRD establishes the requirement for submittal of a Configuration Management Plan to delineate the Contractor policy, processes, and procedures used to assure compliance with established SSC configuration management policies. This DRD is applicable to all SSC Mission Essential Infrastructure, Special Management Attention Systems, and other institution, program, and project infrastructure and resources.

References

PWS 2.2; PTD SOI-8080-0015 - Configuration Control of Propulsion Test Systems; SSLP-1410-0001- Document and Data Control; SSLP-1440-0001 – SSC Records Management Program and Control of Quality Records, SPC 1152.1 - SSC/NASA Boards; SPG 1280.1 – SSC Management Manual; SSC STD 66-500 - SSC Facility Engineering Documentation Standard

Exceptions/Additions to Referenced Requirements

None

Preparation Instructions

The plan shall include, but is not limited to the following:

1. Contractor's policy with regard to configuration management
2. Description of how Contractor integrates Contractor policy with NASA policies concerning safety, mission assurance, operational effectiveness, and ISO 9000
3. Organizational structure and assignment of functional responsibilities to assure effective institutionalization of configuration management principles into the work environment.
4. Process and procedures
5. Areas requiring configuration management
6. Areas excluded from configuration management

Plan to be submitted electronically as MS Word (SSC desktop standard version at time of submission) file formatted to print on standard 8.5" x 11" paper in portrait orientation. Plan requires NASA approval prior to implementation and subsequent revisions.

Remarks

None

DATA REQUIREMENT

DR Number, Date Revised

EN01

Contract Number, Date, & Modification No.

TOC  
Effective:

Title

Report, Air Emissions

Responsible Office

RA02

PWS. Reference

1.1.2.3

SUBMITTAL REQUIREMENTS

Distribution Instructions

NASA Contract Deliverables System  
Approval: RA02 Environmental Officer  
Concurrence:  
Information –

Initial Submittal Date

45 days after contract start, Quarterly-10/10/2003 (Quarterly Report for E Complex Emissions Data).

As of Milestone

Monthly-the 10th of each month, Quarterly- Jan 10th, Apr 10th, Jul 10th, Oct 10th.

Frequency of Submittal

Monthly, Quarterly (E Complex Emissions Data).

DATA REQUIREMENT DESCRIPTION

Purpose

Provides actual run times for the engines located at B4400. The Official File Numbers are 8530.4.E.4

Scope

This Data Requirement Description (DRD) establishes the requirement for collection of hourly engine meter data for ten engines at B4400. This report is inclusive of the serial # for each engine and any other corrective actions associated with that engine. Provide the actual emissions data for the E Complex including test at the H-1 Test Facility.

References

Clean Air Act, Mississippi APC-S-1, APC-S-2, and APC-S-6, and SSC Title V Permit.

Subject to regulatory requirements revisions.

Exceptions/Additions to Referenced Requirements

The report provides the meter run times for each engine. The E Complex data shall include date, time, type and size of each test motor fired; number of LOX/LM motor components fired each day and each consecutive 365 day period; quantity of GOX/HTPB propellant fired each day and each consecutive 365 day period; quantity of LOX/HTPB propellant fired each day and each consecutive 365 day period; quantity of N2O/HTPB propellant fired each day and each consecutive 365 day period.

8 ½ x 14 paper (spreadsheet) or electronically.

Data submitted to procuring activity for review no later than three weeks prior to project implementation. Data shall be considered approved unless Contractor has been notified of disapproval prior to project implementation.

Preparation Instructions

One (1) copy each must be delivered with 1) SSC Official File Number and copy ready to be filed in SSC Official Environmental Files.

Remarks

DATA REQUIREMENT

DR Number, Date Revised

LS01

Contract Number, Date, &  
Modification No.

TOC  
Effective:

Title

Plan, Government Property  
Management Administration

Responsible Office

RA30

P.W.S. Reference

1.5

SUBMITTAL REQUIREMENTS

Distribution Instructions

NASA Contract Deliverables System  
Approval: RA30 Supply & Equipment Management Office  
Concurrence:  
Information – BA31 Contracting Officer. HA20 Contracting Officer Technical

Initial Submittal Date

60 days after contract start.

As of Milestone

As of start of contract & revisions thereof.

Frequency of Submittal

One time and revisions.

DATA REQUIREMENT DESCRIPTION

Purpose

To identify the methods of controlling and administering government property.

Scope

This Data Requirement Description (DRD) establishes the requirements for the preparation of procedures covering the Contractor's methods of implementing all elements of an integrated property control and administration program.

References

PWS 1.5, NPG 4100.1, NASA Materials Inventory Management Manual; NPG 4200.1, NASA Equipment Management Manual; NPG 4200.2, Equipment Management Manual for Property Custodians; NPG 4300.1, NASA Personal Property Disposal Procedures and Guidelines, NPG 4310.1, Identification and Disposition of NASA Artifacts; NASA FAR Supplement Part 1852.245-71, Installation Provided Government Property.

Exceptions/Additions to Referenced Requirements

None

Preparation Instructions

The procedures shall include, as a minimum, the Contractor's methods of implementing the intent of the applicable documents in the "References" section above. Other procedures shall be included as required, to fully define and identify the system of property control.

Plan requires NASA approval prior to implementation and subsequent revisions.

Remarks

None

### DATA REQUIREMENT

DR Number, Date Revised

MA02

Contract Number, Date, &  
Modification No.

TOC  
Effective:

Title

List, Owners, Officers, Directors,  
and Executive Personnel

Responsible Office

RA30

P.W.S. Reference

1.0

### SUBMITTAL REQUIREMENTS

Distribution Instructions

NASA Contract Deliverable System  
Approval: RA30 Security Officer  
Concurrence:  
Information – BA31 Contract Officer, HA20 Contracting Officer Technical Representative

Initial Submittal Date

Start of contract.

As of Milestone

As of the last revision.

Frequency of Submittal

As Required.

### DATA REQUIREMENT DESCRIPTION

Purpose

To provide the Defense Security Services (DSS) cognizant security officer with current listing of owners, officers, directors and executive personnel in accordance with the National Industry Security Program Operating Manual (NISPOM), DOD 5220.22-M

Scope

This Data Requirement establishes the requirement for the submittal of a list of owners, officers, directors, and executive personnel in accordance with DOD NISPOM 5220.22-M.

References

DSA Form 406, NISPOM, DOD 5220.22-M.

Exceptions/Additions to Referenced Requirements

None

Preparation Instructions

A list will be submitted when there is any change in officers, directors, partners, regents, trustees, or executive personnel, including as appropriate, the names of the individuals they are replacing. In addition, a statement shall be made indicating: (i) whether the new officers, directors, partners, regents, trustees, or executive personnel are cleared, and if so, to what level, when, their date and place of birth, and their citizenship; (ii) whether they have been excluded from access in accordance with the provisions of paragraph 22e; or (iii) whether they have been temporarily excluded from access pending the granting of their personnel clearance.

DSA Form 406 will be used.

Data submitted to procuring activity for coordination, surveillance, or information.

Remarks

Original to be mailed directly to cognizant office with a copy to RA30, Security Officer.

DATA REQUIREMENT

DR Number, Date Revised

MA03

Contract Number, Date, &  
Modification No.

TOC  
Effective:

Title

Report, Personnel

Responsible Office

BA30

S.O.W. Reference

None

SUBMITTAL REQUIREMENTS

Distribution Instructions

NASA Contract Deliverable System  
Approval: BA31 Contracting Officer  
Concurrence:  
Information – HA20 Contracting Officer Technical Representative and PS52 MSFC

Initial Submittal Date

30 days after start of contract.

As of Milestone

Date of submittal.

Frequency of Submittal

Annually, due May 1.

DATA REQUIREMENT DESCRIPTION

Purpose

To provide pertinent and administrative information as related to program personnel to be used in resource analysis and obtaining Service Contract Act wage determinations from the Department of Labor.

Scope

This Data Requirement Description (DRD) establishes the requirement for the submission of a personnel report.

References

None

Exceptions/Additions to Referenced Requirements

None

Preparation Instructions

The report shall provide the following information:

- A. Identification of all personnel by name, organization, job classification and distinguishing exempt from non-exempt and Information Technology sensitive "public trust" positions.
- B. Exempt salary levels and non-exempt applicable (hourly) rates by level which will be utilized in staffing for performance of this contract.
- C. Detailed information on key personnel directly employed in connection with the performance of this contract, covering professional competence, authority and assignment when requested by the Contracting Officer.
- D. Organization charts, including major subcontractors, delineated by divisions and number of personnel.

Electronically transmitted. For company sensitive information, a hard copy and disk may be provided. Organizational charts may be on 11 by 17 inch bond paper, if necessary.

Report will be updated when any pertinent changes are made in personnel realignments or organizational structure.

Data submitted to procuring activity for coordination, surveillance, or information.

Remarks

None

DATA REQUIREMENT

DR Number, Date Revised

MA04

Contract Number, Date, &  
Modification No.

TOC  
Effective:

Title

**Plan, Emergency**

Responsible Office

RA20

P.W.S. Reference

1.1.2.1

SUBMITTAL REQUIREMENTS

Distribution Instructions

NASA Contract Deliverable System  
Approval:  
Concurrence:  
Information – Submit to RA20 with one copy each to BA30, QA00 and MSFC PS52, QS50, TD70.  
Submit to the SSC TechDoc System.

Initial Submittal Date

60 days after contract start.

As of Milestone

Start of contract.

Frequency of Submittal

Annual Review and Update

DATA REQUIREMENT DESCRIPTION

Purpose

To provide a course of action including procedures to be followed by the Contractor in the event of a disaster.

Scope

This data requirements description establishes the requirements for the preparation of a Plan for the reasonable protection of the Government facilities and related utilities, for which the Service Contractor is responsible, to prevent or minimize personnel injury and casualties, damage or destruction of the facilities, related utilities and privately owned property resulting from a natural or civil emergency, including but not limited to acts of sabotage, buried munitions, labor disturbances, riots, fire, explosions, hurricanes, and acts of God, as outlined in the SSC and MSFC Emergency Plans.

## References

SPG 1040.1, MPG 1040.3

## Exceptions/Additions to Referenced Requirements

**None**

## Preparation Instructions

The Plan shall include, but is not limited to, the following:

- Levels of disaster
- Routes of evacuation
- Color-codes and signals the Contractor will execute in case of a disaster.
- Provisions for maintenance of up-to-date records of the physical location of all site personnel at all times.
- Provisions for immediate notification of next of kin in case of a catastrophic occurrence.
- Identification of hospitalization, first-aid areas, emergency vehicles, and qualified medical personnel capabilities.
- Indoctrination and training techniques proposed to insure adequate execution of the disaster plan.
- Provide a vital records program to allow survival of essential records during disaster conditions.
- Provisions for survival equipment and supplies.

Electronic 8 1/2 X 11 format compatible with Microsoft Word.

Maintain per GRS Schedule 5 Disposition 1, A1 NPG 1441.1.

Plan requires NASA approval prior to implementation and subsequent revisions.

## Remarks

Contractor will review annually updating to maintain currency. In the event no changes are required to the plan a letter format report will be submitted stating the fact that the plan is current, and that no revisions are required.

### DATA REQUIREMENT

DR Number, Date Revised

MA05

Contract Number, Date, &  
Modification No.

TOC  
Effective:

Title

Report, Equal Employment  
Opportunity

Responsible Office

AA00

P.W.S. Reference

None

### SUBMITTAL REQUIREMENTS

Distribution Instructions

NASA Contract Deliverable System  
Approval:  
Concurrence:  
Information – AA00 Equal Employment Opportunity Office, BA31 Contracting Officer and MSFC  
PS52

Initial Submittal Date

90 days after contract start

As of Milestone

Quarterly.

Frequency of Submittal

Reports shall be provided not later than the 5th of each month following the end of a calendar  
year quarter.

### DATA REQUIREMENT DESCRIPTION

Purpose

This document will be used by the Government to assess the Contractor's equal employment  
and affirmative action management of Contract effort.

Scope

Data Requirement Description (DRD) establishes the requirement for the preparation and submittal of a quarterly EEO report.

References

FAR 22.802; FAR Clause 52.222-26, Narrative Reports

Exceptions/Additions to Referenced Requirements

None

Preparation Instructions

Format and content of report specified in applicable document.

See applicable documents (Note: Contractor may reproduce forms, or obtain from NASA EO Office a diskette which will enable them to generate the forms through the use of PC Software.

Data submitted to procuring activity for coordination, surveillance, or information.

Remarks

Ensure that workforce profile data includes minority and gender designations.

DATA REQUIREMENT

DR Number, Date Revised

MA06

Contract Number, Date, &  
Modification No.

TOC  
Effective:

Title

Report, Contract Performance  
Progress

Responsible Office

BA30

P.W.S. Reference

None

SUBMITTAL REQUIREMENTS

Distribution Instructions

NASA Contract Deliverable System  
Approval: BA31 Contracting Officer  
Concurrence:  
Information – HA20 Contracting Officer Technical Representative AA00, CA00, BA30,  
BA20, IA00, QA00, RA00, HA00, VA00 and MSFC PS52, TD70, QS10 and QS50

Initial Submittal Date

30 days after start of the contract.

As of Milestone

End of fiscal month.

Frequency of Submittal

Monthly, 15th day of each calendar month.

DATA REQUIREMENT DESCRIPTION

Purpose

To report results of contract performance and accomplishments, including accomplishments in selected special emphasis areas.

Scope

This DR establishes the requirement for the preparation and submittal of a monthly contract performance report. This includes a status of all subcontract activity as well as efforts and special emphasis areas.

References

None

Exceptions/Additions to Referenced Requirements

None

Preparation Instructions

The report shall address major accomplishment, "new" technology reviews, events of special significance, difficulties, and progress toward meeting contract requirements. The report shall be in narrative form, brief, and informal in content. It should include discussion of any current problems, which may impede performance, and the proposed corrective action. This report shall also provide Contractor safety and quality metrics and initiatives, including a summary of man-hours, mishaps and close-calls, lost-time accidents, accident frequency and average number of employees.

As a subsection of the report, there shall be a status of all purchase orders and subcontracts (including any modifications to existing purchase orders and subcontracts) awarded. The purchasing activity report shall be generated from the Contractor's automated tracking and status system for all procurement actions. The report shall include a purchase order/subcontract number, date of receipt of the requirement, date the purchase order/subcontract was issued, the dollar amount, a brief description, the vendor and size of business (small, small disadvantaged, women-owned, large, foreign government) and whether it was a sole source or competitive procurement. The report shall summarize the total dollar amount awarded for the month, total contract year to date, and total Government fiscal year to date. The report summary shall also reflect total obligated dollars and total paid dollars for the month, total contract year to date, and total Government fiscal year to date.

Electronic transmission via letter form. Purchasing activity in tabular form. MS Word format.

Monthly updates.

Data submitted to procuring activity for coordination, surveillance, or information.

Remarks

None

### DATA REQUIREMENT

DR Number, Date Revised

MA07

Contract Number, Date, &  
Modification No.

TOC  
Effective:

Title

Plan, Handling of Data

Responsible Office

VA00

P.W.S. Reference

### SUBMITTAL REQUIREMENTS

Distribution Instructions

NASA Contract Deliverable System  
Approval: BA31 Contracting Officer  
Concurrence:  
Information – HA20 Contracting Officer Technical Representative  
CA00, HA00, QA00, and VA00 Directors

Initial Submittal Date

60 days after contract start

As of Milestone

Start of Contract

Frequency of Submittal

Annual review and update, as required

### DATA REQUIREMENT DESCRIPTION

Purpose

To describe and outline Contractor methods used in assuring proper handling and control of sensitive and proprietary government and third party data.

Scope

This DRD establishes the requirement for submittal of a Data Handling plan to delineate the Contractor's policy, process, and procedures used to assure the proper handling of sensitive and proprietary data. Data handling includes but is not limited to government or third party data access, use, disclosure, reproduction, transmission, storage and disposal activities.

References

Exceptions/Additions to Referenced Requirements

RFP, section H-8

Preparation Instructions

Plan to be submitted electronically as MS Word (SSC desktop standard version at time of submission) file formatted to print on standard 8.5"x11" paper in portrait orientation.

Remarks

Plan shall include a government notification process, in the event of a policy or procedure violation.

DATA REQUIREMENT

DR Number, Date Revised

MF01

Contract Number, Date, &  
Modification No.

TOC  
Effective:

Title

Report, Contractor Financial  
Management

Responsible Office

BA20

P.W.S. Reference

1.3

SUBMITTAL REQUIREMENTS

Distribution Instructions

NASA Contract Deliverable System  
Approval: BA22 (Cost Accountant)  
Concurrence:  
Information – BA21 Deputy CFO (Resource), BA22 Deputy CFO (Finance), BA31  
Contracting Officer, HA20 Contracting Officer Technical Rep, TD02 Program Analyst, HA40  
Program Control, and MSFC PS52,

Initial Submittal Date

533M plus detail, COB Tuesday after SSC Fiscal month; 533Q, first quarter after contract  
start.

As of Milestone

John C. Stennis Space Center Fiscal Calendar Month End Date.

Frequency of Submittal

533M plus detail Due COB Tuesday after SSC Fiscal month, 533Q Due Quarterly (Monthly is  
also due when Quarterly is submitted).

DATA REQUIREMENT DESCRIPTION

Purpose

To assure that dollar and labor resources realistically support the schedule and to evaluate  
Contractor cost performance. The 533M reporting level is at the total contract. Detail costs  
will be reported at the work authorization level by NASA Center. The reporting baseline is  
against total contract value.

## Scope

This Data Requirement Description (DRD) establishes the requirements for the preparation of a report covering accumulated and forecasted dollar expenditures required to perform the contractual effort.

## References

NASA Form 533M & 533Q; NPD 9501.1, NASA Contractor Financial management

## Exceptions/Additions to Referenced Requirements

None

## Preparation Instructions

The report shall be prepared in accordance with the General Provision Clause (NASA Financial Management Reporting on NASA Form 533M or 533Q). The 533 will be submitted in electronic format to interface with SAP software.

## Remarks

This data is due by close of business Tuesday following the end of the SSC fiscal month. The financial data will consist of manhours and total costs for the applicable tasks at the work order level. The Contractor will process reimbursable work orders and estimates into the Funds Availability System (FAS) and obtain FAS acceptance and reservation of funds before work is performed. The FAS will be updated by the Contractor as work is completed or work orders are amended. 533Q due on the 20th day of each month preceding the quarter being projected. All supporting 533's from Team Members should accompany the total TOC 533.

DATA REQUIREMENT

DR Number, Date Revised

MF02

Contract Number, Date, &  
Modification No.

TOC  
Effective:

Title

Report, Monthly Workforce

Responsible Office

BA21

P.W.S. Reference

1.3

SUBMITTAL REQUIREMENTS

Distribution Instructions

NASA Contract Deliverable System  
Approval: BA21 Budget Analyst, Lead-Institution  
Concurrence:  
Information –BA31 Contracting Officer, HA20 Contracting Officer Technical Rep, BA22 and  
MSFC PS52, TD02 Program Analyst  
(The original is to be submitted to the Contracting Officer BA31 )

Initial Submittal Date

After start of contract.

As of Milestone

COB last Friday of NASA/SSC accounting month.

Frequency of Submittal

Monthly, COB Wednesday after SSC Fiscal month. This report is due no later than the third Monday following the close of each fiscal month.

DATA REQUIREMENT DESCRIPTION

Purpose

Reporting of workforce for both the prime and all subcontractors to SSC management and NASA Headquarters.

Scope

This Data Requirement Description (DRD) establishes the requirements for the preparation of the monthly workforce report that provides monthly status (dollars and workforce) against the approved operating budget.

References

None

Exceptions/Additions to Referenced Requirements

None

Preparation Instructions

Computer generated report depicting headcount. Information input directly into the NASA Interactive Planning System (NIPS). Letter format report to NASA Contract Deliverable System stating date of input into NIPS.

Data submitted to procuring activity for coordination, surveillance, or information.

Remarks

This report is due no later than the third Monday following the close of each fiscal month.

DATA REQUIREMENT

DR Number, Date Revised

MF03

Contract Number, Date, &  
Modification No.

TOC  
Effective:

Title

Report, Resources  
Management

Responsible Office

BA21

P.W.S. Reference

1.3

SUBMITTAL REQUIREMENTS

Distribution Instructions

NASA Contract Deliverable System  
Approval: BA21 Budget Analyst, Lead-Institution  
Concurrence:  
Information –BA31 Contracting Officer, HA20 Contracting Officer Technical Rep, BA22,  
and MSFC PS52, and TD02 Program Analyst  
(The original is to be submitted to the Contracting Officer BA31.)

Initial Submittal Date

After start of contract.

As of Milestone

End of fiscal month.

Frequency of Submittal

Monthly, COB Wednesday after SSC Fiscal month

DATA REQUIREMENT DESCRIPTION

Purpose

To provide the SSC Management with a detailed review of each major centers cost of operations.

## Scope

This Data Requirement Description (DRD) establishes the requirements for the preparation of an operating statement, a work performed report and a burden analysis report for each Contractor controlled Budget Line item by Work Breakdown Structure indenture.

## References

SSC Management Accounting System Manual.

## Exceptions/Additions to Referenced Requirements

None

## Preparation Instructions

Information will be submitted in accordance with the content identified in the SSC Management Accounting System Manual. Format will be submitted in accordance with the SSC Management Accounting computer generated report, depicting resources. Information input directly into NASA Interaction Planning System (NIPS). Letter format report to NASA Contract Deliverables System starting date of input into NIPS.

Data submitted to procuring activity for coordination, surveillance, or information.

## Remarks

MF03 information shall be input directly into the NASA Interactive Planning system (NIPS) and electronically transmitted to the NASA/SSC CFO.

DATA REQUIREMENT

DR Number, Date Revised

MF04

Contract Number, Date, &  
Modification No.

TOC  
Effective:

Title

Report, Cost of Operations

Responsible Office

BA22

P.W.S. Reference

1.3

SUBMITTAL REQUIREMENTS

Distribution Instructions

NASA Contract Deliverable System  
Approval: BA22 Cost Accountant  
Concurrence:  
Information – BA31 Contracting Officer, FOOSC, ODIN, Security Contractor Financial Officer

Initial Submittal Date

After start of contract.

As of Milestone

NASA/SSC Accounting Month End.

Frequency of Submittal

Monthly, COB Wednesday after SSC Fiscal month end

DATA REQUIREMENT DESCRIPTION

Purpose

To provide SSC Management and resident users with a Summary and Detail for Cost of Operations.

Scope

This Data Requirement Description (DRD) establishes the requirement for providing the following tabular Cost of Operations Summary and Detail Report. 1). Cost of Operations – Detail, 2). Cost of Operations Verification Report, 3). Combined invalid Shop Order/IMS Error Report.

PWS 1.3; SSC MI 9200.1; and SSC Management Accounting System Manual.

References

None

Exceptions/Additions to Referenced Requirements

Information will be submitted in accordance with the content identified in the SSC Management Accounting System Manual. Information will be submitted in accordance with the format identified in the SSC Management Accounting System Manual.

Preparation Instructions

Report due COB Wednesday after SSC Fiscal month end

Remarks

DATA REQUIREMENT

DR Number, Date Revised

MF05

Contract Number, Date, &  
Modification No.

TOC  
Effective:

Title

Report, SSC Management  
Accounting System

Responsible Office

BA22

P.W.S. Reference

1.3

SUBMITTAL REQUIREMENTS

Distribution Instructions

NASA Contract Deliverable System  
Approval: BA22 Cost Accountant  
Concurrence:  
Information – FOS Finance Officer

Initial Submittal Date

After start of contract.

As of Milestone

NASA/SSC Accounting Month End.

Frequency of Submittal

Monthly

DATA REQUIREMENT DESCRIPTION

Purpose

To provide SSC Management and resident users cost data by support Contractor and SSC Procurement assigned to work orders and benefitor codes.

## Scope

This Data Requirement Description (DRD) establishes the requirement for providing the following site-wide cost reports. 1). Function Code by Benefitor/Function Level Detail, 2). Function Code Summary Report, 3). Function Code by Benefitor Detail Report, 4). SSC Current Month Cost Report, 5). Function Code by Contract Summary, 6). Function Code by Contract Detail Summary Report, 7). SSC Cost Accounting Systems Function Code Report by NONBURDENED and ETB BASE, 8). SSC Cost Account Systems Function Code Report, 9). Cost of Operations Detail, 10). Cost by Technical Work Request Summary, 11). Cost by Technical Work Request, 12). Program/Project Report, 13). Shop Contributor Report, 14). Major Cost Center Contributor Detail Report, 15). Major Cost Center Contributor Summary Report, 16). Automated Cost Assignment, 17). Electronic Site-wide Diskettes, 18). Work in Progress Report

## References

SSC Management Accounting System Manual.

## Exceptions/Additions to Referenced Requirements

None

## Preparation Instructions

Information will be submitted in accordance with the content identified in the SSC Management Accounting System Manual. Information will be submitted in accordance with the format identified in the SSC Management Accounting System Manual.

Data submitted to procuring activity for coordination, surveillance, or information.

## Remarks

Report is due 10:00 a.m. (Local SSC time) eight (8) calendar days following the close of the SSC fiscal month, or ten (10) days from the last Friday of the fiscal Month.

### DATA REQUIREMENT

DR Number, Date Revised

MF06

Contract Number, Date, &  
Modification No.

TOC  
Effective:

Title

Reports, Financial Management  
Accounting System/Financial and  
Contractual Status (RFMAS/FACS)

Responsible Office

BA22

P.W.S. Reference

1.3

### SUBMITTAL REQUIREMENTS

Distribution Instructions

NASA Contract Deliverable System  
Approval: BA22 Cost Accountant  
Concurrence:  
Information -

Initial Submittal Date

As of start of contract.

As of Milestone

NASA/SSC Accounting Month End.

Frequency of Submittal

Monthly

### DATA REQUIREMENT DESCRIPTION

Purpose

To provide SSC Management, NASA HQ, Financial and Program Managers, as well as other regulatory Government Agencies data on the financial profile of SSC and its programs.

Scope

This Data Requirement Description (DRD) establishes the requirement for providing the following financial reports, 1). Current Month Activity Report, 2). Reimbursable by Fund Source Report, 3). Fund Source Report, 4). Sub Allotment Report, 5). Appropriation Report, 6). Journal Voucher Report, 7). Resource Authorization/Allotment Report, 8). Washington Tape and Report, 9). Un-liquidated Obligation Report, 10). Billing Auto JV Preliminary, 11). Reimbursable Reconciliation, 12). Cash Reconciliation Report, 13). Project by UPN/Contract (Reimbursement), 14). Contract Report, 15). DCN/Program Code Report, 16). DCN/Function Report, 17). Master File Report by Contract, 18). Master File Report by DCN/LI, 19). Method of Authorization by Fund Source, 20). Project by Year/Contract Report, 21). Buy/Sell by Contract Report, 22). Distribution by Contract Report, 23). Accounts Payable Report, 24). Distribution by Benefitor Report, 25). Project by UPN/Contract Report, 26). Buy/Sell by IMS Code Report.

References

SSC MASS Release 2 Manual.

Exceptions/Additions to Referenced Requirements

None

Preparation Instructions

Information will be submitted in accordance with the content identified in the MASS Release 2 Manual. Submissions will be made as separate Reports, each with it's own schedule and format into the NASA Contracts Deliverable System.

Data submitted to procuring activity for coordination, surveillance, or information.

Remarks

Specific dates vary based on NASA Headquarters guidelines.

DATA REQUIREMENT

DR Number, Date Revised

MF07

Contract Number, Date, & Modification No.

TOC Effective:

Title

Report, Cost Exceeding 100% of SWR Estimate

Responsible Office

BA22

P.W.S. Reference

1.3

SUBMITTAL REQUIREMENTS

Distribution Instructions

NASA Contract Deliverable System  
 Approval: BA22 Lead, General Accounting Branch  
 Concurrence:  
 Information – BA31 Contracting Officer, HA20 Contracting Officer Technical Representative,  
 RA00 Work Ordering Office

Initial Submittal Date

No earlier than 45 days after contract start

As of Milestone

NASA/SSC Fiscal Accounting Month End.

Frequency of Submittal

Monthly, COB Wednesday after SSC Fiscal month end

DATA REQUIREMENT DESCRIPTION

Purpose

To identify any work orders with actual cost in excess of the customer's "not to exceed" cost estimate.

Scope

1. Provide a monthly report to separately identify reimbursable work orders with cost in excess of Customer's "Not-To-Exceed" cost estimate.
2. Provide a monthly report to separately identify all non-reimbursable work orders with cost in excess of Customer's "Not-to-Exceed" cost estimate.

References

None

Exceptions/Additions to Referenced Requirements

NOTE: Current practice is to report cost overruns.

Preparation Instructions

The report shall provide a tabular listing that identifies the home unit SWR number and description. The report will also provide TOC, TTSC/TSC, FOS and total cost comparison to funding. SWRs should not be removed from the report until the SWR is out of a deficit status.

The report will include a narrative of corrective action taken to resolve cost overruns.  
Tabular Listing.

Data submitted to DCFO (Finance) for coordination, surveillance, or information.

Remarks

The report is due COB Wednesday after SSC Fiscal month end.

### DATA REQUIREMENT

DR Number, Date Revised

MF08

Contract Number, Date, &  
Modification No.

TOC  
Effective:

Title

Report, Occupational Health  
Program Cost

Responsible Office

RA30

P.W.S. Reference

1.3

### SUBMITTAL REQUIREMENTS

Distribution Instructions

NASA Contract Deliverable System  
Approval: BA22C Commercial Accounting and Financial Services Branch  
Concurrence:  
Information – BA30 Procurement Support. RA30.OA00 and MSFC PS52. OS50

Initial Submittal Date

12 working days after end of first fiscal year.

As of Milestone

Fiscal year end.

Frequency of Submittal

Annually

### DATA REQUIREMENT DESCRIPTION

Purpose

To provide detailed cost and FTE data related to occupational and environmental health.

Scope

This Data Requirement Description (DRD) establishes the requirement for providing the Occupational Health Program Cost Report.

References

Financial Management Manual (FMM) 9354-7 and 7A. FMM 9354-7 and 7A, NASA Form (NF) 1229.

None

Exceptions/Additions to Referenced Requirements

Information will be submitted in format of NASA Form (NF) 1229.  
Data submitted to procuring activity for coordination, surveillance, or information.

Preparation Instructions

None

Remarks

DATA REQUIREMENT

DR Number, Date Revised

MF09

Contract Number, Date, &  
Modification No.

TOC  
Effective:

Title

Cost Allocation for Supplies,  
Materials and Services

Responsible Office

BA22

P.W.S. Reference

1.3

SUBMITTAL REQUIREMENTS

Distribution Instructions

NASA Contract Deliverable System  
Approval: BA22, BA21  
Concurrence:  
Information – BA31 Contracting Officer, RA00, VA00

Initial Submittal Date

60 days post contract award.

As of Milestone

N/A

Frequency of Submittal

One time initial submission. If initial submission is draft, then approved final submission is required within 30 days. Resubmission if changed during course of contract

DATA REQUIREMENT DESCRIPTION

Purpose

To document to NASA the internal procedure used by the Contractor to assure all costs are properly allocated.

Scope

This Data Requirement Description (DRD) establishes the requirement for the preparation of a procedure delineating the process used for allocation of cost incurred as required by Stennis Policy Directive (SPD) 9230.1, Cost Allocation for Supplies, Materials, and Services on Support Services Contracts.

References

SPD 9230.1

None

Exceptions/Additions to Referenced Requirements

The procedure shall be prepared in electronic format (MS Word preferred) suitable for posting in the NAIS Contract Deliverable Systems.

Preparation Instructions

Procedure must address all aspects of cost allocations, and address how the TOC informs FOS and other Contractors of draw account, bench stock, and related resource consumption within the TOC when the costs reside within the FOC or another contract.

Remarks

DATA REQUIREMENT

DR Number, Date Revised

PC02

Contract Number, Date, &  
Modification No.

TOC  
Effective:

Title

Report, Subcontractor  
Litigation

Responsible Office

CA00

P.W.S Reference

None

SUBMITTAL REQUIREMENTS

Distribution Instructions

NASA Contract Deliverable System  
Approval: CA00 Chief Counsel  
Concurrence:  
Information – BA31 Contracting Officer, HA20 Contracting Officer Technical Representative, and  
MSFC PS52

Initial Submittal Date

When, in Contractors opinion, litigation may result and within 15 days after filing of action  
or suit.

As of Milestone

As of date of report.

Frequency of Submittal

As Required.

DATA REQUIREMENT DESCRIPTION

Purpose

To advise the Chief Counsel and Procurement Office of any actual or possible litigation  
between the Contractor and subcontractor.

Scope

This Data Requirement Description (DRD) establishes the requirements for the preparation of a report covering any action of suit filed, and prompt notice of any claim against the Contractor by any subcontractor or vendor which, 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.

References

FAR 52.244.2 (h) Subcontracts (cost reimbursement and letter contracts).

None

Exceptions/Additions to Referenced Requirements

Letter format detailing all pertinent facts surrounding actual or potential litigation. Data submitted to procuring activity for coordination, surveillance, or information.

Preparation Instructions

Report to be made within 15 days after filing of action or suit.

Remarks

DATA REQUIREMENT

DR Number, Date Revised

PC03

Contract Number, Date, &  
Modification No.

TOC  
Effective:

Title

Report, Patent, Copyright, and  
Infringement

Responsible Office

CA00

P.W.S Reference

None

SUBMITTAL REQUIREMENTS

Distribution Instructions

NASA Contract Deliverable System  
Approval: CA00 Chief Counsel  
Concurrence:  
Information – BA31 Contracting Officer and MSFC PS52

Initial Submittal Date

When a notice or claim of patent or copyright infringement occurs.

As of Milestone

As of date of report.

Frequency of Submittal

As Required.

DATA REQUIREMENT DESCRIPTION

Purpose

To inform the Chief Counsel and Procurement Office of suspected infringements on patents and copyrights.

Scope

This Data Requirement Description (DRD) establishes the requirements for the preparation of a report covering each notice or claim of patent or copyright infringement based on performance of the contract as required by the "Notice and Assistance Regarding Patent and Copyright Infringement" clause of the General Provisions.

References

FAR 52.227-2 Notice and Assistance regarding Patent and Copyright Infringement and General Provision clauses.

Exceptions/Additions to Referenced Requirements

None

Preparation Instructions

Letter format detailing all notices or claims on patent or copyright infringements based on performance of the contract.

Data submitted to procuring activity for coordination, surveillance, or information.

Remarks

None

DATA REQUIREMENT

DR Number, Date Revised

PC04

Contract Number, Date, & Modification No.

TOC Effective:

Title

Report, Liability to Third Person(s)

Responsible Office

CA00

P.W.S. Reference

None

SUBMITTAL REQUIREMENTS

Distribution Instructions

NASA Contract Deliverable System  
Approval: CA00 Chief Counsel  
Concurrence:  
Information – BA31 Contracting Officer and MSFC PS52

Initial Submittal Date

When any suit or action is filed against the contract.

As of Milestone

As of date of report.

Frequency of Submittal

As Required.

DATA REQUIREMENT DESCRIPTION

Purpose

To inform the Contracting Officer on any liability by the Contractor to a third person(s), which may or may not be covered by the Contractor's insurance.

Scope

This Data Requirement Description (DRD) establishes the requirement for the preparation of a report covering any suit or action filed, or any claim made, against the contract as required by the "Insurance-Liability to Third Persons" clause of the Contract.

References

FAR 52.228-7; NASA FAR Supplement 1852.228-75, entitled "Insurance to Third Persons".

Exceptions/Additions to Referenced Requirements

None

Preparation Instructions

Letter format detailing any suit or action filed, or any claim made, against the Contractor by a third person(s) arising from the performance of the contract.

Data submitted to procuring activity for coordination, surveillance, or information.

Remarks

Report to be made within 15 days after filing of action or claim. Original to BA31, Contracting Officer, and copy to CA00, Chief Counsel.

### DATA REQUIREMENT

DR Number, Date Revised

PC05

Contract Number, Date, &  
Modification No.

TOC  
Effective:

Title

Certificate/Policy, Insurance

Responsible Office

BA31

P.W.S. Reference

None

### SUBMITTAL REQUIREMENTS

Distribution Instructions

NASA Contract Deliverable System  
Approval: BA31 Contracting Officer  
Concurrence:  
Information – CA00 Chief Counsel and MSFC PS52

Initial Submittal Date

15 days after award of contract.

As of Milestone

Start of contract or revisions thereof.

Frequency of Submittal

Certificate/Policy shall be provided within 15 days after award of contract. Any revisions in coverage changes shall be submitted at least 30 days prior to implementation.

### DATA REQUIREMENT DESCRIPTION

Purpose

Certificate shall describe the type and amount of insurance coverage maintained by the Contractor during the period of the contract. Complete policy shall also be provided to ensure insurance requirements of the contract are met.

Scope

This Data Requirement Description (DRD) establishes the requirement for submittal of a certificate and detailed insurance policy with coverage and contents specified in FAR 52.228-7 "Insurance-Liability to Third Persons" and NASA FAR Supplement clause 1852.228-75 "Minimum Insurance Coverage".

References

FAR 52.228-7; NASA FAR Supplement 1852.228-75.

Exceptions/Additions to Referenced Requirements

None

Preparation Instructions

As required by the Contract Article entitled "Insurance". Certificate and Policy provided by Insurance Company.

Hard copy of Certificate and Policy to be provided to BA31 Contracting Officer and CA00 Chief Counsel. Letter format submission to NASA Contract Deliverables System detailing submission of hard copies.

Data submitted to procuring activity for review not later than three weeks prior to project implementation. Data shall be considered approved unless Contractor has been notified of disapproval prior to project implementation.

Remarks

None

DATA REQUIREMENT

DR Number, Date Revised

PC06

Contract Number, Date,  
Modification No.

TOC  
Effective:

Title

Report, Subcontracts

Responsible Office

BA31

P.W.S. Reference

1.5

SUBMITTAL REQUIREMENTS

Distribution Instructions

NASA Contract Deliverable System  
Approval: BA31 Contracting Officer  
Concurrence:  
Information – BA30A Small Business Specialist, MSFC PS52  
NASA HQ, Procurement Officer

SF-294 & SF-295 - one (1) copy to BA31 and to NASA Headquarters, Attn: Office of Procurement (HC), Washington, DC 20546 - Monthly Subcontract Report - One (1) copy to SB Specialist (BA30A). and original to Contracting Officer (BA31).

Initial Submittal Date

SF-294 & SF-295, must submit 30th day of the month following the close of the semi-annual reporting period.

As of Milestone

SF-294 & SF-295, must submit 30th day of the month following the close of the semi-annual reporting period.

Frequency of Submittal

Semi annual, SF-295, Summary Subcontract Report. Monthly, Summary Subcontract Report.

DATA REQUIREMENT DESCRIPTION

Purpose

To provide NASA a basis for evaluation and extent of subcontracts program involving small and disadvantaged business concerns.

Scope

This Data Requirement Description (DRD) establishes the requirement for the preparation of the Semi-annual SF-294 Subcontracting Report for Individual Contracts and the Semi-annual SF295 Summary Subcontract Report for periods ending March 31st and September 30th. And the Monthly Report covering all subcontracts executed by the reporting company.

References

PWS 1.5; FAR Part 19.704; FAR 52.219-9; NFS 1852.219-76, and SF-294 & SF-295.

Exceptions/Additions to Referenced Requirements

None

Preparation Instructions

In the format of SF-294 & SF-295. Monthly Summary Subcontract Report is the data specified in Blocks 10 - 13 on form SF-295. In accordance with instructions on forms SF-294 and SF-295.

Data submitted to procuring activity for coordination, surveillance, or information.

Remarks

None

DATA REQUIREMENT

DR Number, Date Revised

PC07

Contract Number, Date, & Modification No.

TOC  
Effective:

Title

Notice, Patent Application

Responsible Office

CA00

P.W.S. Reference

None

SUBMITTAL REQUIREMENTS

Distribution Instructions

NASA Contract Deliverable System  
Approval: CA00 Chief Counsel  
Concurrence:  
Information – BA31 Contracting Officer

Initial Submittal Date

Upon Contractor's intention to file a patent application that discloses classified subject matter of the contract.

As of Milestone

As of report date.

Frequency of Submittal

As Required.

DATA REQUIREMENT DESCRIPTION

Purpose

To inform the Contracting Officer of the Contractor's intent to file a patent application which discloses a subject invention as defined in NASA FAR Supplement 1852.227-70, New Technology, and/or classified subject matter of the contract, as defined in 52.227-10(as modified by NASA FAR Supplement 1852.227-11)

Scope

This Data Requirement Description (DRD) establishes the requirement for the preparation of a notice covering proposed patent applications dealing with subject inventions developed under the contract, and/or classified information as required by the "Filing of Patent Applications-Classified Subject Matter" clause of the Contract.

References

NASA FAR Supplement 1852.227-70, New Technology FAR 52.227-10 (As modified by NASA FAR Supplement 1852.227-11). Filing of Patent Applications-Classified Subject Matter clause of the Contract.

Exceptions/Additions to Referenced Requirements

None

Preparation Instructions

As defined in applicable reference documents.  
Data submitted to procuring activity for coordination, surveillance, or information.

Remarks

None

DATA REQUIREMENT

DR Number, Date Revised

PT01

Contract Number, Date, &  
Modification No.

TOC  
Effective:

Title

Plan, Five Year Equipment

Responsible Office

RA30

P.W.S. Reference

None

SUBMITTAL REQUIREMENTS

Distribution Instructions

NASA Contract Deliverable System  
Approval: RA30 (10 Copies)  
Concurrence:  
Information – BA31 Contracting Officer, HA20 Contracting Officer Technical Representative and  
MSFC PS52, TD70

Initial Submittal Date

February 1st after contract start

As of Milestone

As of report date.

Frequency of Submittal

Annual each February

DATA REQUIREMENT DESCRIPTION

Purpose

The purposes of the Five Year Equipment Plan are: (1) Development of Center level equipment procurements and (2) Development of Center resource plans.

Scope

This Data Requirement Description (DRD) establishes the requirement for the preparation and submittal of a Five Year Equipment Plan. The plan shall provide the requirements and procedures for the preparation of the equipment procurement requirements necessary to performing the assigned program at SSC and MSFC.

References

None listed.

None

Exceptions/Additions to Referenced Requirements

Preparation Instructions

The plan shall include, as a minimum, the following information:

- A. Equipment Requirement Index. This index includes the following elements: Contractor ID, Contractor Priority, Submitting Organization, Submitting Organization Priority, Equipment Name, New or Replace Equipment, Quantity, Cost.
- B. Individual Equipment Requirement Data Sheet. An Equipment Requirement Data Sheet will be developed for each line item of equipment required. The equipment requirement data sheet shall include: Header information as shown in paragraph A above, Equipment Name, Justification of Need, Submitting Organization Contact, NASA Technical Manager Concurrence and, where required, Approval of Project Manager.

Following review by NASA and Contractor, the equipment plan will be approved by the NASA Equipment Modernization Manager.

Plan requires NASA approval prior to implementation and subsequent revisions.

Remarks

Implementation is based on resources. All equipment needs of the Contractor including information technology shall be included in the plan regardless of funding source or program.

### DATA REQUIREMENT

DR Number, Date Revised

PT03

Contract Number, Date, &  
Modification No.

TOC  
Effective:

Title

Report, Automated Information  
Security Incident

Responsible Office

RA30

P.W.S. Reference

2.1.4

### SUBMITTAL REQUIREMENTS

Distribution Instructions

NASA Contract Deliverable System  
Approval : RA30 Information Technology (IT) Security Manager  
Concurrence:  
Information -

Initial Submittal Date

As IT Security incidents occur.

As of Milestone

As IT Security incidents occur.

Frequency of Submittal

When an IT security incident occurs meeting the criteria specified in NPG 2810.1, Sec 4.4. IT Security Incidents Reporting and Handling, it must be documented and transmitted within three (3) days.

### DATA REQUIREMENT DESCRIPTION

Purpose

Reports on IT security incidents will be used to alert NASA and NASA Contractor Computer Security Officials (CSO) and Information Processing Service Organizations (IPSO) security official(s) of computer system vulnerabilities, unauthorized access to computer systems, and other problems adversely affecting NASA and NASA Contractors.

## Scope

This Data Requirement Description (DRD) establishes the requirements for preparation and submittal of an IT Security Follow-on Incident Report.

## References

NPG 2810.1, Sec. 4.4, IT Security Incidents Reporting and Handling, Security of Information Technology, Security of Information Technology, NPG 2810.1 and SSC Information Technology Security Incident Reporting and Handling Procedure, SPG 2810.

## Exceptions/Additions to Referenced Requirements

None

## Preparation Instructions

The report shall include, as a minimum, the following information: Incident Category, Date and time of incident notification Name of person or organization providing the incident notification, Date and time of incident Name, IP address, and SSC tag number of the SSC computer system and identification of any non-SSC computer system, Location of the computer system (building and room number), Type of computer system, Operating system (name and version), Cognizant organization, Identification of the computer system CSO, Primary function of the computer system, Classification of the computer system (sensitivity level and configuration), Method of penetration or virus infection, if known, Characterization of perpetrator(s) thought to be involved (i.e. insider, outsider), Preliminary estimate of damage, if known, and/or potential damage, Immediate corrective actions taken, Corrective actions planned, Organizations/personnel contacted, e.g. technical support, law enforcement, legal counsel, and public relations.

Data requiring written approval by procuring activity prior to implementation into the procurement or development program.

## Remarks

None

### DATA REQUIREMENT

DR Number, Date Revised

PT05

Contract Number, Date, &  
Modification No.

TOC  
Effective:

Title

Plan, Propellants and  
Pressurants Management

Responsible Office

VA60

P.W.S. Reference

2.1.1

### SUBMITTAL REQUIREMENTS

Distribution Instructions

NASA Contract Deliverable System  
Approval: VA60 Propellants Manager  
Concurrence:  
Information – HA20 Contracting Officer Technical Representative  
BA31 Contracting Officer

Initial Submittal Date

Within 45 days after start of contract.

As of Milestone

As of report date.

Frequency of Submittal

One time with annual review and update.

### DATA REQUIREMENT DESCRIPTION

Purpose

Documents process to plan, forecast, order, receive, assure quality, store, track usage, conservation & reporting of all propellants and pressurants required for test programs assigned to the TOC.

Scope

This Data Requirement established the requirement for preparation and submittal of a Propellants and Pressurants Management Plan. This plan shall govern the operations of the propellant management function within the TOC contract.