

PART III – LIST OF DOCUMENTS, EXHIBITS AND OTHER ATTACHMENTS

Attachment J-11

SAFETY & HEALTH PLAN

(NOT INCLUDED)

PART III – PERFORMANCE STANDARDS AND WORKLOAD INDICATORS

ATTACHMENT J-12

PERFORMANCE STANDARDS AND WORKLOAD INDICATORS

Number	Performance Service	Workload Ind. SSC	Workload Ind. MSFC	Performance Standards	Acceptable Quality Level
1.0	Management And Administration				
1.1	Administer Integrated Contract Team	Contractor determined	Contractor determined	Ensures contract compliance with Public Laws, Executive Orders, contract clauses and provisions; project management ensures that all work is conducted in a high quality manner and safe environment;	No violations or non-compliances of Public Laws (PL), Executive Orders (EO), FAR/NFS contract clauses promulgated by PL or EO; no OSHA citations or EPA violations, no Department of Labor (DOL) violations; or major breach of security. No non-compliance with ISO 9001 and ISO 14001 in such a way to jeopardize ISO Registry.
1.1.1	Provide technical staff that are trained and certified in all necessary skill types for rocket propulsion test activities (applicable at all sites)	Contractor determined	Contractor determined	Provides necessary personnel and resources, except those Government Furnished, to accomplish work and complies with all other terms and conditions of the contract; project management ensures test equipment, GSE, and other items are in 'test' ready condition and instrumentation systems are operable.	Retention of qualified and proper mix of personnel and resources to accomplish required work. No instances of Facility not being ready for test conduct, tests not completed on schedule, or primary objectives not met because of the improper skill mix, non-certified personnel.
1.1.2	Conduct and maintain a comprehensive program of safety and mission assurance (S&MA) and environmental protection	See S&MA workload indicator document	8 Survl. Reports per month 30 JHA's All Hands Safety per month Company safety meeting per week (44) building inspections per	(a) Accident or exposure resulting in a fatality, mission failure, damage to equipment or property equal to or greater than \$1 million,	(a)No Class A, B or C mishaps. No OSHA reportable violation, no personnel injuries due to unsafe acts or conditions

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			month Contractor determined	(b) Compliance to SPG8715.1 and all other agency, state, federal and local regulations and guidelines. (c) Mission assurance and quality management system compliance with customer requirements And compliance with MSFC/SSC Quality Management System documents (MPD 1280.1, SLP 02 , ISO9001, etc	(c) No missed/bypassed Mandatory Inspection points (MIP) No more than 5% rework of any task due to Contractor error or deficiency. No NASA Discrepancy Reports (NDR)
1.1.2.1	Conduct operations safely	Contractor determined according to proposed S&MA plan and relevant workload indicators.	Contractor determined according to proposed S&MA plan and relevant workload indicators. Contractor determined	See 1.1.2	See 1.1.2
1.1.2.2	Develop and maintain a mission assurance and quality management system	Contractor determined according to proposed S&MA plan and relevant workload indicators.	Contractor determined according to proposed S&MA plan and relevant workload indicators. Radiography P.O	See 1.1.2	See 1.1.2
1.1.2.3	Conduct and manage work activities in compliance with all applicable state, federal, local, and agency environmental regulations	Contractor determined	Contractor determined	See 1.1.2	See 1.1.2
1.2	Utilize existing automated work authorization systems	Contractor determined	Contractor determined	Utilize existing work authorization systems	N/A
1.3	Effectively manage cost and schedule performance in	Contractor determined	Contractor determined	Operate within designated budget.	

Number	Performance Service	Workload Ind. SSC	Workload Ind. MSFC	Performance Standards	Acceptable Quality Level
	accordance with approved operating plans and report resources status			Financial data and reporting requirement deliverables are current, accurate, and delivered in a timely manner.	
1.4	Report project performance	Contractor determined according to required DRs	Contractor determined according to required DRs	Management plans, performance reporting requirements, other data requests, and status reporting are current, accurate, and delivered in a timely manner.	
1.5	Provide procurement and property management for equipment	See equipment and facilities list	See equipment and facilities list	Maintain accurate accounting of inventory items. All required inventory items will be configured and ready for test Manage and coordinate the procurement of all supplies, materials, equipment, and services needed to meet test schedule.	
1.6	Administer the Rocket Propulsion Test Management Board (RPTMB) and the National Rocket Propulsion Test Alliance Processes (NRPTA)	Weekly RPTMB Meetings 4 Conferences per year 20 Presentations Prepared	N/A	Timely and accurate administration of RPTMB and NRPTA processes	
1.7	Develop Customer Outreach	Support two government engineers in developing technical documents and discussions.	N/A	Timely and complete formulation and implementation of customer outreach in accordance with the work authorization documents.	No violations in the proprietary handling of information gathered in the development of new business.

Number	Performance Service	Workload Ind. SSC	Workload Ind. MSFC	Performance Standards	Acceptable Quality Level
1.8	Formulate Test Project Concepts	Support two government engineers in developing technical information. In past two years: No entire packages were completed by Contractor; 6 partial costs estimates per year.	N/A	Timely and complete formulation of test project concepts (cost estimates, customer agreements, and phase 0 PRD's) in accordance with the work authorization documents.	
2.0	Test & Engineering Core Capability				
2.1	Engineer, operate, maintain, and manage test core capabilities	Contractor determined according to proposed operations and staffing plan developed with detailed workload indicators.	Contractor determined according to proposed operations	All necessary core capabilities available as required for test.	No test delays due to the Contractor deficiencies.
2.1.1	Plan, procure, receive, and handle consumable propellants and pressurants	See Test And Support History Summary for details. Summary: FY99-2,489 trls FY00-5,391 trls FY01-5,470 trls	N/A	Propellant quantities to support test schedules. Pressurant levels to support activity at SSC:	See 2.1
2.1.1.1	Provide Propellants Management for propellants and pressurants	See Test And Support History Summary for details. Summary: FY99-2,489 trls FY00-5,391 trls FY01-5,470 trls	Collect & consolidate yearly long range propellant forecast sheets provided by MSFC test engineers		See 2.1
2.1.1.2	Operate and maintain propellant and pressurant systems.	See Test And Support History Summary for details.	N/A		See 2.1
2.1.1.3	Operate and maintain high pressure gas systems.	See Test And Support History Summary for details.	N/A	See Test And Support History Summary for details: HPG Test Summary: He=3500psi min	See 2.1

Number	Performance Service	Workload Ind. SSC	Workload Ind. MSFC	Performance Standards	Acceptable Quality Level
				GN=3200psi min Air=1500psi min GH2=2500psi min	
2.1.2	Operate and maintain high pressure industrial water systems (HPIW) required for deluge and fire suppression	See Test And Support History Summary for details. In addition to normal maintenance, the TOC will perform the refurbishment of three Nordberg diesel engines at a rate of approximately two per year.	N/A	Industrial water for deluge and cooling: 250,000 gpm at 250 psi for A/B Summary: Pumps normally operated from 1 hour before A/B test through test completion. Num. pumps normally operated: A1-7; A2-8; B1/2-9	See 2.1
2.1.3	Track, monitor, and install mechanical and electrical components to meet test needs	Assure components used in systems for which the Contractor is responsible are maintained with proper certifications and calibrations.	Mechanical Components per year FY00 = 980 FY01 = 971 FY02* = 1077 * Data thru 10/2/02 Electrical Components per Year FY00 = 500 FY01 = 500 FY02 = 500	Certified components available as required to support test.	See 2.1
2.1.4	Manage test data, including delivery, storage, dissemination, and archiving	Provide data services for E Complex, see Test And Support History Summary for number of tests.	N/A	Data processing, storage, delivery, and archival.	See 2.1
2.1.5	Operate and maintain emergency power generators to provide emergency backup power	Generator service requested for A/B tests approximately 90% of tests. See Overall Test Sheet for number of tests.	N/A	Emergency back-up power for A/B complex: 2 MW Generators operated at request of A/B Complex test operations engineers.	See 2.1

Number	Performance Service	Workload Ind. SSC	Workload Ind. MSFC	Performance Standards	Acceptable Quality Level
				Operations normally last a minimum of one shift, but less than two shifts in a day.	
2.1.6	Perform test stand operator maintenance and integrate all maintenance activities.	See SOMRD (in tech. Library) for details of systems responsibilities.	See component data in section 2.1.4 and other relevant work load indicators	Timely and complete performance of required maintenance.	See 2.1
2.2	Operate and maintain the existing secure configuration management and control system for all test projects, facilities, systems, subsystems, and components for each site	FY02 (through July) 81 EO's; 92 ECR's; 941 Drawings Released; 18 CM meetings FY01 47 EO's; 52 ECR's; 1576 Drawings released; 44 CM meetings	See MSFC TOWIS and other relevant work load indicators	Accurate and timely documentation of configuration changes as submitted. MSFC: Operate and input into WATS, as per TD70-003. Generate and maintain test facility drawings, as per TD70-005. SSC: Operate and maintain Windchill CM system.	See 2.1
2.3	Develop and maintain documentation utilizing existing systems	See Level 3 Quality Management System documentation for workload requirements.	See MSFC TOWIS and other relevant work load indicators	Properly formatted and archived products. MSFC: As per MPG1440.2 TD70-003 & TD70-004, and all applicable OI's. SSC: Use CEF and Tech Doc system.	MSFC: Contractor shall prepare and maintain procedure without impacting test schedule.
2.4	Develop and maintain analytical tools and methodologies	Total number of analyses is approximately 400	N/A	Documented demonstration/validation of analytic models' accuracy in an applicable RPT environment and test operation condition. Documentation will include a technical description of the	Analytical results within 5% on high fidelity models and 10% on low fidelity models relative to applicable test environment.

Number	Performance Service	Workload Ind. SSC	Workload Ind. MSFC	Performance Standards	Acceptable Quality Level
				analytic model, its application in test systems design and analysis and the procedures for its operation.	
2.5	Identify, evaluate, and adapt new test technology and systems to continually improve propulsion system ground testing	Approximately 20 promising technologies reviewed (per year) for the improvement of test safety and efficiency.	N/A	Demonstrate technical leadership in chemical rocket propulsion systems test and related technology development.	<p>Identify a minimum of six (6) promising technologies and field a minimum of two (2) field applied technologies per year that improve the safety and efficiency of testing.</p> <p>A minimum of four (4) mutually unique test technology technical papers accepted by a nationally recognized professional society in research or applied science.</p> <p>Maintain membership in three (3) national/international Technical Committees on propulsion systems and propulsion systems ground testing</p>
2.6	Plan, evaluate, engineer, and support construction of test facility modernization and improvements	Approximately \$600,000 in yearly maintenance projects (approx. 15 separate projects) implemented by TOC; 1 yearly call for proposed maintenance projects; 1 yearly call for Coff projects; 2 ongoing Coff projects affecting TOC facilities; attend approximately 100 design reviews.	N/A	Complete and timely input for construction planning, design, and implementation.	
2.7	Provide a comprehensive plan to operate and maintain core capability	1 plan/yr. for both centers (DR PT 09)	1 plan/r. for both centers (DR PT 09)		

Number	Performance Service	Workload Ind. SSC	Workload Ind. MSFC	Performance Standards	Acceptable Quality Level
3.0	Test Project Implementation and Test Performance Capability				
3.1	Support, schedule, and manage projects	No Contractor personnel have acted as overall project manager to date. Past requirements have been for support.	N/A	Complete and timely project management functions including PRD's, customer interfacing, budgets, and schedules.	
3.1.1	Develop Project Plans	No Contractor personnel have acted as overall project manager to date. Approximately 3-5 new project plans are developed yearly.	N/A	Timely and complete new project plans.	
3.1.2	Provide project management and systems integration engineering support	No Contractor personnel have acted as overall project manager or systems integration engineer to date.	N/A	Input as required for program management and systems integration engineering.	
3.1.3	Manage projects	No Contractor personnel have acted as overall project manager to date.	N/A	Manage test project from initial requirements through close out.	
3.1.4	Schedule and integrate projects	Approximately 12 schedules are active or in development at any time. These schedules contain between 500-750 line items each and are updated daily with a schedule status summary e-mailed twice daily.	Maintain a weekly schedule for all MSFC Test Facility	Complete and timely schedules for ongoing test projects utilizing Microsoft Project.	90% of schedules updated on time as required by project.
3.2	Design and develop test systems	Approximately 24 design packages in FY02 (through July) and 24 designs in FY01.	N/A	Sufficient and effective design and drafting of test facilities and operating systems with accompanying analyses and operating procedures to	No instances of the test facility being not ready to conduct tests due to safety, performance, cost, or schedule problems related to the Contractor's design of the test facility.

Number	Performance Service	Workload Ind. SSC	Workload Ind. MSFC	Performance Standards	Acceptable Quality Level
				validate adequacy of the design in meeting safety, operating, cost and schedule requirements defined in the test project requirements document, according to applicable SOIs	Less than 5% rework of schematics or drawings due to drafting, design or analysis errors/omissions unrelated to test project system design changes.
3.2.1	Design and analyze mechanical systems	See 3.2	N/A	Sufficient and effective design of the mechanical systems of a test facility that accommodates all test project safety, operating, cost and schedule requirements.	See 3.2
3.2.1.1	Design and analyze propellant systems	See 3.2	N/A	Ensure design and development of safe, reliable and efficient cryogenic and storable propellant delivery systems.	See 3.2
3.2.1.2	Design and analyze pressurant and purge systems	See 3.2	N/A	Ensure design and development of safe, reliable and efficient pressurant and purge systems.	See 3.2
3.2.1.3	Design and analyze components	See 3.2	N/A	Accurate and complete propellant, pressurant, purge, hydraulic and pneumatic system component specification and vendor submittal review and component selection.	See 3.2

Number	Performance Service	Workload Ind. SSC	Workload Ind. MSFC	Performance Standards	Acceptable Quality Level
3.2.1.4	Design and analyze hydraulic and pneumatic systems	See 3.2	N/A	Ensure design and development of safe, reliable and efficient hydraulic and pneumatic systems.	See 3.2
3.2.2	Design and analyze electrical systems	See 3.2	N/A	Sufficient and effective design of test facility electrical, instrumentation and test operations controls and measurement systems along with procedures that accommodate all test project safety, operating, cost and schedule requirements.	See 3.2
3.2.2.1	Design and analyze data acquisition systems	See 3.2	N/A	Sufficient and effective design of test facility LS and HS DAS and procedures that accommodate all test project safety, operating, cost and schedule requirements.	See 3.2
3.2.2.2	Design and analyze test control systems	See 3.2	N/A	Sufficient and effective design of test facility controls systems and procedures that accommodate all test project safety, operating, cost and schedule requirements.	See 3.2
3.2.2.3	Design and analyze instrumentation	See 3.2	N/A	Ensure design of adequate test performance measurement instrumentation to accommodate all test project safety, operating, cost and schedule requirements.	See 3.2
3.2.2.4	Design and analyze ancillary systems - fire detect, video, oral warning	See 3.2	N/A	Ensure design of fire detection, video and oral warning systems to accommodate	See 3.2

Number	Performance Service	Workload Ind. SSC	Workload Ind. MSFC	Performance Standards	Acceptable Quality Level
				all test project safety, operating, cost and schedule requirements.	
3.2.3	Draft designs utilizing Autocad and Pro/Engineer	See 3.2	Update and distribute approximately 45-50 drawings per month	SSC: Provide accurate and detailed test facility piping and instrumentation schematics along with solid model drawings within test project budget and schedule requirements. MSFC: Provide timely and accurate drawing support per TD70-005 utilizing existing CAD System (AutoCAD)	See 3.2
3.2.4	Conduct special studies	Approximately 5 per year	N/A	Sufficient and effective evaluations and conceptual studies on test systems as required.	See 3.2
3.3	Fabricate and install test system	See Test And Support History Summary for indication of new programs per year.		Completed test systems and subsystems as required.	No impact to test schedule and adherence to all NASA and industry codes for mechanical and electrical systems.
3.3.1	Fabricate mechanical systems	See 3.3 Weld inspection provided by FOS Contractor	10 design packages per year. (See Tech. Library for examples) Visual welding inspections radiographic penetrant inspection is project dependent	Completed mechanical systems and subsystems as required including tubing, components, and vessels.	See 3.3
3.3.2	Fabricate electrical systems	See 3.3.1	See MSFC TOWIS (in Tech. Library) and other relevant work load indicators	Completed electrical systems and subsystems as required including data acquisition, test control, instrumentation, and ancillary	See 3.3

Number	Performance Service	Workload Ind. SSC	Workload Ind. MSFC	Performance Standards	Acceptable Quality Level
				systems.	
3.4	Activate test systems	See Test And Support History Summary for indication of new programs per year.		Complete system performance check under normal operating conditions.	No instances of the test facility being not ready to conduct tests due to safety, performance, cost, or schedule problems related to activation of the test facility.
3.4.1	Develop Facility Activation Plan	See 3.4	N/A	Complete plan, or inputs to a complete plan, detailing the method and steps necessary to safely complete a facility activation.	See 3.4
3.4.2	Activate mechanical systems	See 3.4	See MSFC TOWIS and other relevant work load indicators	Operation of mechanical systems as required to perform a test system activation.	See 3.4
3.4.3	Activate electrical systems	See 3.4	See MSFC TOWIS and other relevant work load indicators	Operation of electrical systems as required to perform a test system activation.	See 3.4
3.4.4	Activate integrated systems	See 3.4	See MSFC TOWIS and other relevant work load indicators	Operation of all integrated systems necessary to safely complete a facility activation.	See 3.4
3.5	Conduct test	No Contractor personnel have acted as Test Director to date. Past requirements have been for personnel to act as members of an integrated test team providing operations engineers as required and all test technician labor.	No Contractor personnel have acted as Test Director to date. Past requirements have been for personnel to act as members of an integrated test team.	Operate all systems as required to safely complete a test.	
3.5.1	Conduct pretest operations	See Test And Support History Summary for indication of tests per year.	No Contractor personnel have acted as Test Director to date. Past requirements have been for personnel to act as	Completion of all steps required before a test including all test article receipt and preparation, all reviews and pre-	

Number	Performance Service	Workload Ind. SSC	Workload Ind. MSFC	Performance Standards	Acceptable Quality Level
			members of an integrated test team.	test checks, and operation of ground support equipment.	
3.5.1.1	Test article receipt and installation	Test article Contractor is normally responsible for test article work. The TOC assists as required. On an exception basis, the TOC will be required to handle a test article. These will be specified in a program's PRD.	On most occasions, the test article Contractor is responsible for test article. The TOC will assist in the installation and removal as required.	See 3.5.1	
3.5.1.2	Integrate test article	Work, as specified in a PRD, for each program in the E Complex.		See 3.5.1	
3.5.1.3	Setup test facility and test system	Work, as specified in a PRD, for each program in the E Complex.	See MSFC TOWIS and other relevant work load indicators	See 3.5.1	
3.5.1.4	Conduct all-up Firing Readiness Test	Work performed for each test in the E Complex.		See 3.5.1	
3.5.1.5	Conduct test readiness review	Work performed for each test in the E Complex.		SSC: See 3.5.1 MSFC: Take minutes and maintain TRR records per TD70-015.	
3.5.1.6	Present documentation for Safety Reviews	Provide information as required by each review team. This varies for each different team, its specific requirements, and the level of support required from the Contractor.	N/A	See 3.5.1	
3.5.1.7	Operate and manage all ground support equipment (supplied by hardware Contractor) required to support Test Operations	The amount and type of equipment for each program varies and is indicated in each PRD.		See 3.5.1	
3.5.2	Conduct Test	No Contractor personnel have acted as Test		Safe completion of all required operations during	

Number	Performance Service	Workload Ind. SSC	Workload Ind. MSFC	Performance Standards	Acceptable Quality Level
		Conductor to date. Past requirements have been for personnel to act as members of an integrated test team providing operations engineers as required and all test technician labor.		an actual test.	
3.5.2.1	Load and condition propellant systems	See 3.5.2		See 3.5.2	
3.5.2.2	Conduct final facility test setups	See 3.5.2	See MSFC TOWIS and other relevant work load indicators	See 3.5.2	
3.5.2.3	Operate test systems	See 3.5.2	See MSFC TOWIS and other relevant work load indicators	See 3.5.2	
3.5.2.4	Secure and safe test facility and test systems	See 3.5.2	See MSFC TOWIS and other relevant work load indicators	See 3.5.2	
3.5.3	Conduct post test operations	Post test operations vary with each test program. See Test And Support History Summary for number of tests and programs.	See MSFC TOWIS and other relevant work load indicators	Safe completion of all required operations to place a test facility in a safe condition, prepare and disseminate collected test data, and disposition all equipment no longer needed.	
3.5.3.1	Process and transmit data	Provide data services for E Complex, see Test And Support History Summary for number of tests.	N/A	See 3.5.3	
3.5.3.2	Analyze data	As part of an integrated test team, analyze data for measurement systems anomalies.	N/A	See 3.5.3	
3.5.3.3	Review data	As part of an integrated test team, review data for measurement systems anomalies and proper number and type	N/A	See 3.5.3	

Number	Performance Service	Workload Ind. SSC	Workload Ind. MSFC	Performance Standards	Acceptable Quality Level
		of measurements.			
3.5.3.4	Inspect test article and facility at the conclusion of each test	See Test And Support History Summary for number of tests.	See MSFC TOWIS and other relevant work load indicators	See 3.5.3	
3.6	Conduct test project closeout/review	As part of an integrated test team, participate in project closeouts and reviews. See Test And Support History Summary for number of programs.	N/A	Closure of all open items at the conclusion of a test project.	
3.6.1	Prepare final reports	To date, the Contractor has not been required to prepare a report. Input has been submitted in relation to functions performed as part of the test team.	N/A	Final report indicating all accomplishments as required by the PRD.	
3.6.2	Conduct customer surveys	Currently, project managers conduct the customer surveys. No Contractor has acted as project manager.	Maximum number of surveys = 40 per year	SSC: Completed customer surveys, as required, for each ongoing or recently completed test project as required by SOI-8080-0006. MSFC: Develop and maintain customer survey database to track results and implement corrective actions.	MSFC: Implement approved customer survey process within 3 months of contract start.
3.6.3	Disposition test article and customer furnished equipment	Test article Contractor is normally responsible for test article work. The TOC assists as required. On an exception basis, the TOC will be required to handle a test article. These will be specified in a programs's PRD.	N/A	Timely and complete disposition of all test articles and customer furnished equipment as indicated in the PRD.	

Number	Performance Service	Workload Ind. SSC	Workload Ind. MSFC	Performance Standards	Acceptable Quality Level
3.6.4	Gather and incorporate lessons learned and corrective actions	Submit any lessons learned to the NASA lessons learned database and to appropriate NASA test management. Lessons learned are usually submitted by test engineers and project managers using test team input. Corrective actions may be submitted by any employee.		Submittal of all lessons learned, as required.	
3.6.5	Reconfigure test facility and systems	Reconfiguration requirements vary for each test program and are defined in the PRD. Most post program reconfiguration is considered build-up for the next program and is covered by 3.3.		Timely and complete reconfiguration of test systems and subsystems as required.	

Work Load Indicators for Stennis Space Center

A. Test And Support History Summary

Much of the work required to accomplish tests at SSC is interdependent. Since the Government desires a Contractor that can provide innovative ideas, the workload indicators should be considered as a whole as opposed to only with its specific requirement.

This attempts to indicate an overall picture of the work performed for test operations and core support in the recent past.

1. The historical number of ISO Audits supported by the TOC contractor is as follows: 80 man-hours per internal audit (4 audits per year).
2. The following table shows the tests performed in the A, B, and E Complexes with breakdowns for each year, facility, and program. It shows total number of tests and total seconds for each year.

TEST STAND	PROGRAM	FY-02 ACTUALS	FY-01 ACTUALS	FY-00 ACTUALS	FY-99 ACTUALS
A-1	X33 / ELECTRO MAGNETIC ACTUATOR				
	FIRINGS	0	4	14	18
	TOTAL SECONDS	0	121	1,473	1,571
A-1	SPACE SHUTTLE MAIN ENGINE				
	FIRINGS	6	0	0	0
	TOTAL SECONDS	2,863	0	0	0
A-2	SPACE SHUTTLE MAIN ENGINE				
	FIRINGS	20	36	53	21
	TOTAL SECONDS	12,570	19,834	29,296	9,990
B-1	RS-68				
	FIRINGS	14	64	38	2
	TOTAL SECONDS	2,825	10,981	2,621	15
B-2	CBC (Common Booster Core)				
	FIRINGS	0	5	0	0
	TOTAL SECONDS	0	564	0	0
E-1	IPD LOX TURBOPUMP				
	FIRINGS	3	7	0	0
	TOTAL SECONDS	31	19	0	0
	250K Hybrid Motor				
	FIRINGS	1	0	0	0
	TOTAL SECONDS	26	0	0	0
650K LOX/LH Motor	FIRINGS	0	0	13	0
	TOTAL SECONDS	0	0	48	0
E-2	LMA - PHUS (CELL 1)				
	FIRINGS	0	22	0	0
	TOTAL SECONDS	0	530	0	0
E-3	HYBRID MOTOR FIRINGS (HYSR)				
	FIRINGS	0	1	22	66
	TOTAL SECONDS	0	10	657	1,274
	H202 CATALYST BED				
	FIRINGS	0	57	7	0
	TOTAL SECONDS	0	3,179	586	0
	H202 CAT-PACK TEST PROGRAM				
	FIRINGS	269	110	0	0
	TOTAL SECONDS	31,690	15,814	0	0
	X34 FASTRACK				
	FIRINGS	0	0	7	21
	TOTAL SECONDS	0	0	213	322
RS-76					
FIRINGS	0	0	7	0	
TOTAL SECONDS	0	0	50	0	
TOTALS					
	FIRINGS	313	306	161	128
	TOTAL SECONDS	50,005	51,053	34,944	13,172

As part of the core responsibilities at SSC, the Contractor will manage, operate, and maintain certain facilities used to support testing in all areas. Some of these systems only support the A/B Complexes, and others support all.

3. The High Pressure Industrial Water (HPIW) facility supports the A/B Complexes. It provides industrial water to the test stands and cryogenic barge docks in these areas. This water is used for cooling during testing and deluge if required at any time. It is operated for all tests in the A or B Complex. When being operated in support of test, the pumps are normally brought on line approximately one hour before the test and operated until after the test is completed. The HPIW operator is in communication with the test conductor during this time to allow for quick response to all requests.

4. The Emergency Generators, located at the HPIW facility, also support the A/B Complexes. They are operated at the request of A/B Complex test operations personnel (not TOC) and are normally used on test days for reductions in power fluctuations. Generator support is called for during approximately 90% of all tests in the A/B Complexes. The generators are normally operated for a duration of between 8 and 12 hours when requested.

5. The High Pressure Gas (HPG) facility supports all test facilities at SSC. Facilities other than the test facilities are also serviced, but are minor in comparison to the test support. Minimum pressures have been established for each test facility for test days and non-test days and are shown in the table below. Deviations from these minimums, especially on non-test days, are allowed, but must be coordinated with any affected areas before any work begins.

PRESSURANT REQUIREMENTS		
A Complex	No Testing	Testing*
GN	2800 psig	3200 psig
He	2000 psig	3000 psig
GH	1000 psig	2300 psig
Air	1500 psig	1500 psig
B Complex		
GN	2800 psig	3200 psig
He	2000 psig**	3500 psig
GH	2500 psig	2500 psig
Air	1500 psig	1500 psig
E Complex		
GN	2000 psig	3000 psig
He	2000 psig	2500 psig
GH	2000 psig	2500 psig

* Testing values are required by 1000 hours on day of test

** B1 tests require that the B Complex He be at 3000 psig during first shift the day prior to test in order to charge spin start bottles.

6. Cryogenics support is provided for all SSC test areas. This support involves the unloading of commodities from trailers at the appropriate facility along with assuring cryogenic propellant barges are delivered, as required, to the appropriate A/B test stand. This includes connecting and disconnecting. The number of propellants/pressurants trailers received is shown in the following table.

PROPELLANT TRAILER DELIVERIES - SSC					
	<u>TOTAL</u> <u>TRLRS.</u>	<u>LH</u>	<u>LOX</u>	<u>LN</u>	<u>HELIUM</u>
FY99	2,489	550	681	1,129	129
FY00	5,391	1,458	1,644	1,903	386
FY01	5,470	1,519	1,697	1,886	368
FY02	3,336	823	1,039	1,347	127
THRU 8/5/02					
		LH TRLR AVG. 7,000 LBS.	LOX TRLR AVG 23 TONS	LN TRLR. AVG. 23 TONS	HE TRLR AVG 185,000 SCF

The number of cryogenic propellant barges loaded is shown in the following table. It should be remembered that LOX barges are loaded directly from delivery trailers, but liquid hydrogen barges are normally loaded from the storage sphere.

PROPELLANT BARGE LOADS - SSC			
	<u>TOTAL</u> <u>TRLRS.</u>	<u>LH</u>	<u>LOX</u>
FY99	143	64	79
FY00	150	79	80
FY01	245	120	125
FY02	92	45	47
THRU 8/5/02			

7. Technician and engineering support for E Complex test operations and maintenance is required. The TOC provides all technician labor along with engineering personnel as required. These personnel work along side government staff as part of an integrated test team. Maintenance responsibilities are indicated in the SOMRD. Past test activity is shown in an earlier table.

8. Historical levels of work documents written for work in the E Complex and A/B Complex support are shown in the following table. Test Preparation Sheets (TPS) and Discrepancy Reports (DR) are for the E Complex; Process Plans (PP) and Discrepancy and Nonconformance Reports (D&CR) are for the A/B Complex.

WORK DOCUMENTS							
		2002 (through 10/02)		2001		2000	
		Total	Contractor	Total	Contractor	Total	Contractor
E-1	Mech TPS	740	135	654	150	782	203
	Elect TPS	443	310	429	369	355	257
	DR	214	49	205	51	199	84
E-2	Mech TPS	200	30	276	71	185	47
	Elect TPS	94	64	157	76	146	55
	DR	20	4	42	15	21	7
E-3	Mech TPS	119	1	245	10	245	111
	Elect TPS	126	3	171	26	145	30
	DR	13	0	69	2	43	0
A/B Complex							
Process Plns							
	HPIW	31	31	31	31	48	48
	HPG	96	96	96	96	119	119
	Cryo	20	20	88	88	103	103
	Test Complex	51	51	118	118	106	106
	D&CR	299	299	530	530	470	470
	HPIW	33	33	64	64	71	71
	HPG	105	105	170	170	141	141
	Cryo	84	84	138	138	132	132
	Test Complex	77	77	158	158	126	126

9. The majority of S&MA WI are driven by engineering and operational requirements; therefore the data should be developed in conjunction with other Contractor functions.

Mgmt meetings (SMC, QMC...)	4/month
- SSC Site Safety meetings	4/year
Training/Certification	5 classes/month
- SSC Cert Board	1/month
- System Maintenance	continual
Engineering Support	TBD
Work Release Support	TBD
Evaluations	As requested
Audits	4/month
Inspections (operational safety & quality)	Operations driven
- DOP/TPS, propellant delivery....	
Verifications	Operations driven
- Atmospheric, Propellant delivery....	
- Lab ops...	
- Training/cert qualifications	
- NDE...	
Hazard Analysis (PSM)	4/year
Job/Workplace Analysis	Process driven
Performance metrics	Process driven
Trend analysis	Process driven

10. The following table shows SSC Government estimated staffing for PWS Section 3 of this RFP. It is important to note that no staffing for work covered under Sections 1 and 2 is included. This would include management, clerical, S&MA, and scheduling along with any other functions required under Sections 1 and 2.

GOVERNMENT STAFFING ESTIMATE FOR SSC PWS SECTION 3

JOB TITLE	Sect. 3					Totals
	Eng/Proj Mgt	E-1	E-2	E-3	Data Processing	
Sr. Electrical Engineer	2					2
Electrical Engineer	4	3	1	1		9
Jr. Electrical Engineer	1					1
Sr. Mechanical Engineer	1					1
Mechanical Engineer	1	1				2
Jr. Mechanical Engineer	1					1
Sr. Systems Engineer	1					1
Drafter	3					3
Engineering Clerk	2					2
Tech Field Support Specialist		2				2
Facilitator		2	1	1		4
Lead Mechanical Technician		1	1	1		3
Mechanical Technician I		2	1	2		5
Mechanical Technician II		6	2	3		11
Mechanical Technician III		3	2	3		8
Lead Electronics Technician		1	1	1		3
Electronics Technical Maintenance I		2	2	1		5
Electronics Technical Maintenance II		3	3	3		9
Electronics Technical Maintenance III		3	2	2		7
Computer Scientist/Programmer					2	2
Data Operator					1	1
Video/Data Specialist					1	1
Planner/Scheduler		1	1	1		3
Totals	16	29	16	18	4	86

Work Load Indicators for Marshall Space Flight Center

Test and Evaluation Department

1. Provided within these list are typical work loads that indicate the amount of work that has occurred during the past years. Although this does not represent all the work that is done by this department, it does give an approximation of the overall work load.

2. Listed below is a snap shot in time of the active projects for FY02. The complexities of these projects differ, but the offeror will have some idea of the amount of different projects worked on during the year. Each of these requires some build-up and removal as well as test ops to be conducted.

Project	Description	Test Position
P2066	Light Weight Long Life Thrust Cell Design	116/PB
P2111	Zero Boiloff MHTB Cryocooler Testing	300
P2153	X-34 LOX Seal Tank Test	500
P2182	RBCC Vortex Chamber (Army)	115
P2242	Advanced Fuels - Round 2	HCF
P2248	Reactivation of 15 Foot Vacuum Chamber	300
P2251	24" Solid	SPTA
P2255	24" Hybrid Motor	500
P2269	Aerojet COBRA & RLX Subscale Injector/Chamber	116
P2270	Laser Ignition Test	HCF
P2271	Rocketdyne FRSC 60K Combustion Devices Testbed	116
P2290	NGC Subscale Composite LH2 Tank	4699
P2291	Rocketdyne Low Element Density Injector	116
P2317	MHTB Modifications for LN2 Test	300
P2330	Stand Preps	4670
P2331	Laser Ignition	HCF
P2335	Cryogenic Mass Flowmeter Development	test cell
P2339	Component Characterization	4674
P2341	Flow Liner Instr. Test	500
P2347	SFT Solid Fuel Tank	test cell
P2348	11" GOX	test cell
P2349	24" Solid Motor Testing	500
P311	Solid Fuel Torch (All RSRM)	TC104

3. The chart below indicates the number of test conducted on the different facilities covered under this contract.

Number of Tests Performed by Test Facility

	'00	'01	'02
500	18	42	67
300	15	16	1
116	5	17	16
115	18	14	11
104	23	8	15
103	0	0	15
SPTA	16	1	0
HCF	33	9	41
STF	8	7	0
OCF	0	23	0
4670	0	0	0
4699	0	0	5
CSF	4	0	0
110	9	0	0
TOTAL	149	137	171

4. Historical levels of TPSs written for work in the Propulsion Research Center, East Test and West Test Areas are shown in the following table. The TPS listed below are associated with the above number of tests. The TOC provides all technician labor along with craft support as required. These personnel work along side government staff as part of an integrated test team. Past test activity is shown in an earlier table.

	WORK DOCUMENTS		
	2000	2001	2002 (through 10/2)
TS115			
Mech TPS	84	105	72
Instr TPS	44	62	53
Control TPS	34	28	43
STE	30	28	17
TS116			
Mech TPS	62	80	99
Instr TPS	26	19	32
Control TPS	33	23	32
STE	10	14	18
TS500			
Mech TPS	165	187	162
Instr TPS	26	53	39

Control TPS	21	68	40
STE	23	54	23
TS300			
Mech TPS	64	79	38
Instr TPS	39	40	4
Control TPS	22	34	9
STE	30	23	12
SPTA			
Mech TPS	1	1	3
Instr TPS	1	9	2
Control TPS	1	6	1
STE	16	36	14
TEST CELLS			
Mech TPS	2	49	100
Instr TPS	12	10	72
Control TPS	8	22	19
STE	13	33	31
Other TPS			
HOT GAS			
Mech TPS	3	2	1
Instr TPS	0	0	0
Control TPS	0	0	0
STE	3	5	2
4699/STF			
Mech TPS	80	37	15
Instr TPS	56	29	3
Control TPS	33	22	8
STE	44	9	2
4670/TSB			
Mech TPS	27	43	16
Instr TPS	14	9	8
Control TPS	12	13	15
STE	3	7	8
HCF			
Mech TPS	31	22	40
Instr TPS	2	1	2
Control TPS	13	2	8
STE	2	2	2

5. Listed below is the number of cryogenic trailers and dewars that support testing in the east and west test areas. Cryogenics support is provided for TS116, TS500, 4699, and 4670. This support involves the unloading / loading of commodities from trailers at the appropriate facilities. This includes connecting and disconnecting. The operation of the trailer valves is the responsibility of the pressure and propellants Contractor. Although the chart below indicates only Lox usage, the Contractor shall be responsible for several Hydrogen storage facilities. If the need arises the Contractor shall support the unloading/loading of commodities from trailers at the appropriate facilities.

Month	LOX Trailers	LOX Dewars (160 liter)
Jun 01	0	1
July 01	0	2
Aug 01	8	3
Sept 01	12	0
Oct 01	7	3
Nov 01	8	0
Dec 01	5	4
Jan 02	0	0
Feb 02	9	3
Mar 02	9	4
Apr 02	3	0
May 02	0	0

6. The following table shows MSFC Government estimated staffing for PWS Section 3 of this RFP. It is important to note that no staffing for work covered under Sections 1 and 2 is included. This would include management, clerical, S&MA, and scheduling along with any other functions required under PWS Sections 1 and 2.

**GOVERNMENT STAFFING ESTIMATE FOR MSFC
PWS SECTION 3**

Classification	Gov. Estimate
Control Tech.	12
Tech 4	3
Tech 3	8
Tech 2	1
Tech 1	0
Instrumentation Tech.	9
Tech 4	3
Tech 3	4
Tech 2	2
Tech 1	0
Mechanical Tech.	16
Tech 4	4
Tech 3	7
Tech 2	5
Tech 1	0
Machinist	2
Mechanical Crews	10
Equip Oprs.	2
Pipefitters	3
Millwrights	3
Carpenter	1
Laborers	1
Scheduler	1
Staffing Total	97

PART III – PERFORMANCE STANDARDS AND WORKLOAD INDICATORS

ATTACHMENT J-13

OPTIONS WORKSHEET

(This file will be found in a separate folder)

SECTION J-13

Competition Review - Option/Sole Source Review Elements (OSSRE)

Element	SECTION I: General Contract Information:	Date Form Completed:	
1.	1. Center		
2.	Action # (Contract #, Cooperative Agreement #, Grant #)		
3.	Was the Contract Competitively Awarded (Yes/No)		
4.	If a Follow-on is Anticipated, will it be Competed? (Yes/No)		
5.	Title/Brief Description of Action		
6.	Contracting Officer Name/Phone		
7.	COTR Name/Phone		
8.	Prime Contractor		
9.	Prime Contractor Performing Business Unit		
10.	Large Business, Small, SDB or WOB? (Identify)		
11.	Predominant Contract Type (% of Total)		
12.	If Hybrid: Secondary Contract Type (% of Total)		
13.	Multiple Award Contract (Y/N)		
14.	GWAC/GSA or other Order? (Identify)		
Period of Performance (P.O.P) & Contract Value:			
15.	<u>Dates:</u> Overall Contract P.O.P. if all Options Are Exercised	Start	End
16.	<u>Total Years:</u> Contract Length In Years (if all Opts Exercised)		Value
17.	<u>Total Value:</u> If All Options Are Exercised		
18.	<u>Award Dates - Original Basic Contract</u>		
19.	<u>Value at Award - Original Basic Contract</u>		
20.	<u>Current Contract Value - Include Basic and Exercised Options</u>		
21.	P.O.P - Option 1		
22.	Total Value - Option Period 1		
23.	P.O.P - Option 2		
24.	Total Value - Option Period 2		
25.	P.O.P - Option 3		
26.	Total Value - Option Period 3		

Competition Review - Option/Sole Source Review Elements (OSSRE)

Element			
27.	P.O.P - Option 3		
28.	Total Value - Option Period 4		
Element			Page 2
Number	SECTION II: Requirements and Market Factors:		
1.	Describe the Government need to be implemented by the Option		
2.	Have there been any changes to the Government need? (Describe)		
3.	Discuss How This Requirement Could be Competed (vs Option Exer):		
4.	Extent of Competition Available Today:		
5.	Original Extent of Competition (How Many Offerors?):		
6.	Technical/Technology Changes/Advances/Breakthroughs That Enable Item #3 (competition) above:		
The Following are Presumed to Have Been Assessed/Completed by the Center:			
1.	Sufficient Funds are Available to Fund the Option		
2.	Sufficient Funds are Expected to be Available for the Life Cycle		
3.	No "Cardinal" Change to the Initially Evaluated Option		
4.	Option Will Be/Has Been Synopsized		
5.	Option Price Was Evaluated Prior to Initial Award		
6.	Admin Cost: Option Exercise v. Cost of New Contract Was Considered		

Competition Review - Option/Sole Source Review Elements (OSSRE)

Element			
7. Continuity of Operations Was Considered			
8. Cost of Disrupting Operations Was Considered			
9. Cost Reasonableness of the Option Was Assessed			
10. Economic Changes Affecting Cost/Tech Performance Considered			
Element		Date Form Completed:	
SECTION III: Contract Performance:			
Number			
	<i>For NF 1680 elements 1.a. - 1.d., rate each on a five point scale:</i>		
	<i>Poor/Unsatisfactory - 1 Satisfactory - 2 Good - 3 Very Good - 4 Excellent - 5</i>		
1.	<u>Contractor Performance Evaluation From NASA Form 1680:</u>	On Basic Contract	On Exercised Options
a.	Quality:		
b.	Timeliness:		
c.	Price/Cost:		
d.	Other:		
	<i>For Items 2. - 6., provide text answers</i>		
2.	<u>Program Management Council (Local/HQs) Assessment/Status:</u>		
3.	<u>Results of Independent Reviews (IARRs/NARRs/IRs etc.):</u>		
4.	<u>Responsibility (Ethics, compliance with law/regs, financial, etc.):</u>		
5.	<u>Effectiveness of Contract Structure:</u>		
	<i>(How are the contract structure, incentives, contract administration requirements, etc., serving NASA's interests)</i>		
6.	<u>Safety Performance:</u>		

PART IV – REPRESENTATIONS AND INSTRUCTIONS

SECTION K

**REPRESENTATIONS, CERTIFICATIONS AND OTHER
STATEMENTS OF OFFERORS**

K. 1 COMPLIANCE WITH VETERANS' EMPLOYMENT REPORTING REQUIREMENTS (52.222-38) (DEC 2001)

By submission of its offer, the Offeror represents that, if it is subject to the reporting requirements of 38 U.S.C. 4212(d) (i.e., if it has any contract containing Federal Acquisition Regulation clause 52.222-37, Employment Reports on Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans), it has submitted the most recent VETS-100 Report required by that clause.

(End of Provision)

K. 2 CERTIFICATION AND DISCLOSURE REGARDING PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS (52.203-11) (APR 1991)

- (a) The definitions and prohibitions contained in the clause, at FAR 52.203-12, Limitation on Payments to Influence Certain Federal Transactions, included in this solicitation, are hereby incorporated by reference in paragraph (b) of this certification.
- (b) The Offeror, by signing its offer, hereby certifies to the best of his or her knowledge and belief that on or after December 23, 1989--
 - (1) No Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress on his or her behalf in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement;
 - (2) If any funds other than Federal appropriated funds (including profit or fee received under a covered Federal transaction) have been paid, or will be paid, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress on his or her behalf in connection with this solicitation, the Offeror shall complete and submit, with its offer, Office of Management & Budget (OMB) standard form LLL, Disclosure of Lobbying Activities, to the Contracting Officer; and
 - (3) He or she will include the language of this certification in all subcontract awards at any tier and require that all recipients of subcontract awards in excess of \$100,000 shall certify and disclose accordingly.
- (c) Submission of this certification and disclosure is a prerequisite for making or entering into this contract imposed by section 1352, title 31, United States Code. Any person who makes an expenditure prohibited under this provision or who fails to file or amend the disclosure form to be filed or amended by this provision shall be subject to a civil penalty of not less than \$10,000, and not more than \$100,000, for each such failure.

(End of Provision)

K. 3 TAXPAYER IDENTIFICATION (52.204-3) (OCT 1998)

(a) Definitions.

"Common parent," as used in this provision, means that corporate entity that owns or controls an affiliated group of corporations that files its Federal income tax returns on a consolidated basis, and of which the Offeror is a member.

"Taxpayer Identification Number (TIN)," as used in this provision, means the number required by the Internal Revenue Service (IRS) to be used by the Offeror in reporting income tax and other returns. The TIN may be either a Social Security Number or an Employer Identification Number.

- (b) All Offerors must submit the information required in paragraphs (d) through (f) of this provision to comply with debt collection requirements of 31 U.S.C. 7701(c) and 3325(d), reporting requirements of 26 U.S.C. 6041, 6041A, and 6050M and implementing regulations issued by the IRS. If the resulting contract is subject to the payment reporting requirements described in Federal Acquisition Regulation (FAR) 4.904, the failure or refusal by the Offeror to furnish the information may result in a 31 percent reduction of payments otherwise due under the contract.
- (c) The TIN may be used by the Government to collect and report on any delinquent amounts arising out of the Offeror's relationship with the Government (31 U.S.C. 7701(c)(3)). If the resulting contract is subject to the payment reporting requirements described in FAR 4.904, the TIN provided hereunder may be matched with IRS records to verify the accuracy of the Offeror's TIN.
- (d) Taxpayer Identification Number (TIN).

-] TIN: _____
-] TIN has been applied for.
-] TIN is not required because:
-] Offeror is a nonresident alien, foreign corporation, or foreign partnership that does not have income effectively connected with the conduct of a trade or business in the United States and does not have an office or place of business or a fiscal paying agent in the United States;
-] Offeror is an agency or instrumentality of a foreign Government;
-] Offeror is an agency or instrumentality of the Federal Government;

(e) Type of organization.

-] Sole proprietorship;
-] Partnership;
-] Corporate entity (not tax exempt);
-] Corporate entity (tax-exempt);
-] Government entity (Federal, State, or local);
-] Foreign Government;
-] International organization per 26 CFR 1.6049-4;

Other _____

(f) Common Parent.

Offeror is not owned or controlled by a common parent as defined in paragraph (a) of this provision.

Name and TIN of common parent:

Name _____

TIN _____

(End of Provision)

K. 4 WOMEN-OWNED BUSINESS (OTHER THAN SMALL BUSINESS) (52.204-5) (MAY 1999)

(a) Definition. "Women-owned business concern," as used in this provision, means a concern that is at least 51 percent owned by one or more women; or in the case of any publicly owned business, at least 51 percent of its stock is owned by one or more women; and whose management and daily business operations are controlled by one or more women.

(b) Representation. [Complete only if the Offeror is a women-owned business concern and has not represented itself as a small business concern in paragraph (b)(1) of FAR 52.219-1, Small Business Program Representations, of this solicitation.] The Offeror represents that it is a women-owned business concern.

(End of Provision)

K. 5 CERTIFICATION REGARDING DEBARMENT, SUSPENSION, PROPOSED DEBARMENT, AND OTHER RESPONSIBILITY MATTERS (52.209-5) (DEC 2001)

(a)(1) The Offeror certifies, to the best of its knowledge and belief, that--

(i) The Offeror and/or any of its Principals--

(A) Are are not presently debarred, suspended, proposed for debarment, or declared ineligible for the award of contracts by any Federal agency;

(B) Have have not , within a three-year period preceding this offer, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, state, or local) contract or subcontract; violation of Federal or state antitrust statutes relating to the submission of offers; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, or receiving stolen property; and

(C) Are are not presently indicted for, or otherwise criminally or civilly charged by a Governmental entity with, commission of any of the offenses enumerated in paragraph (a)(1)(i)(B) of this provision.

(ii) The Offeror has has not , within a three year period preceding this offer, had one or more contracts terminated for default at any Federal Agency.

"Principals," for the purposes of this certification, means officers; directors; owners; partners; and, persons having primary management or supervisory responsibilities within a business entity (e.g., general manager; plant manager; head of a subsidiary, division, or business segment, and similar positions).

This Certification Concerns a Matter Within the Jurisdiction of an Agency of the United States and the Making of a False, Fictitious, or Fraudulent Certification May Render the Maker Subject to Prosecution Under Section 1001, Title 18, United States Code.

(b) The Offeror shall provide immediate written notice to the Contracting Officer if, at any time prior to contract award, the Offeror learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

(c) A certification that any of the items in paragraph (a) of this provision exists will not necessarily result in withholding of an award under this solicitation. However, the certification will be considered in connection with a determination of the Offeror's responsibility. Failure of the Offeror to furnish a certification or provide such additional information as requested by the Contracting Officer may render the Offeror non-responsible.

(d) Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render, in good faith, the certification required by paragraph (a) of this provision. The knowledge and information of an Offeror is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

(e) The certification in paragraph (a) of this provision is a material representation of fact upon which reliance was placed when making award. If it is later determined that the Offeror knowingly rendered an erroneous certification, in addition to other remedies available to the Government, the Contracting Officer may terminate the contract resulting from this solicitation for default.

(End of Provision)

**K. 6 SMALL BUSINESS PROGRAM REPRESENTATIONS (52.219-1) (APR 2002)--
ALTERNATE I (APR 2002)**

(a) (1) The North American Industry Classification System (NAICS) code for this acquisition is 541710.

(2) The small business size standard is 1000.

(3) The small business size standard for a concern which submits an offer in its own name, other than on a construction or service contract, but which proposes to furnish a product which it did not itself manufacture, is 500 employees.

(b) Representations.

(1) The Offeror represents as part of its offer that it [] is, [] is not a small business concern.

- (2) **[Complete only if Offeror represented itself as a small business concern in paragraph (b)(1) of this provision.]** The Offeror represents, for general statistical purposes, that it is, is not a small disadvantaged business concern as defined in 13 CFR 124.1002.
- (3) **[Complete only if Offeror represented itself as a small business concern in paragraph (b)(1) of this provision.]** The Offeror represents as part of its offer that it is, is not a women-owned small business concern.
- (4) **[Complete only if the Offeror represented itself as a small business concern in paragraph (b)(1) of this provision.]** The Offeror represents as part of its offer that it is, is not a veteran-owned small business concern.
- (5) **[Complete only if the Offeror represented itself as a veteran-owned small business concern in paragraph (b)(4) of this provision.]** The Offeror represents as part of its offer that it is, is not a service-disabled veteran-owned small business concern.
- (6) **[Complete only if Offeror represented itself as a small business concern in paragraph (b)(1) of this provision.]** The Offeror represents, as part of its offer, that-

(i) It is, is not a HUBZone small business concern listed, on the date of this representation, on the List of Qualified HUBZone Small Business Concerns maintained by the Small Business Administration, and no material change in ownership and control, principal office of ownership, or HUBZone employee percentage has occurred since it was certified by the Small Business Administration in accordance with 13 CFR Part 126; and

(ii) It is, is not a joint venture that complies with the requirements of 13 CFR Part 126, and the representation in paragraph (b)(6)(i) of this provision is accurate for the HUBZone small business concern or concerns that are participating in the joint venture. [The Offeror shall enter the name or names of the HUBZone small business concern or concerns that are participating in the joint venture: _____.] Each HUBZone small business concern participating in the joint venture shall submit a separate signed copy of the HUBZone representation.

(Alternate 1) (7) **[Complete if the Offeror represented itself as disadvantaged in paragraph (b)(2) of this provision.]** The Offeror shall check the category in which its ownership falls:

_____ Black American

_____ Hispanic American

_____ Native American (American Indians, Eskimos, Aleuts, or Native Hawaiians).

_____ Asian-Pacific American (persons with origins from Burma, Thailand, Malaysia, Indonesia, Singapore, Brunei, Japan, China, Taiwan, Laos, Cambodia

(Kampuchea), Vietnam, Korea, The Philippines, U.S. Trust Territory of the Pacific Islands (Republic of Palau), Republic of the Marshall Islands, Federated States of Micronesia, the Commonwealth of the Northern Mariana Islands, Guam, Samoa, Macao, Hong Kong, Fiji, Tonga, Kiribati, Tuvalu, or Nauru).

_____ Subcontinent Asian (Asia-Indian) American (persons with origins from India, Pakistan, Bangladesh, Sri Lanka, Bhutan, the Maldives Islands, or Nepal).

_____ Individual/concern, other than one of the preceding.

(c) Definitions. As used in this provision--

"Service-disabled veteran-owned small business concern"--

(1) Means a small business concern--

- (i) Not less than 51 percent of which is owned by one or more service-disabled veterans or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more service-disabled veterans; and
- (ii) The management and daily business operations of which are controlled by one or more service-disabled veterans or, in the case of a veteran with permanent and severe disability, the spouse or permanent caregiver of such veteran.

(2) "Service-disabled veteran" means a veteran, as defined in 38 U.S.C. 101(2), with a disability that is service-connected, as defined in 38 U.S.C. 101(16).

"Small business concern" means a concern, including its affiliates, that is independently owned and operated, not dominant in the field of operation in which it is bidding on Government contracts, and qualified as a small business under the criteria in 13 CFR Part 121 and the size standard in paragraph (a) of this provision.

"Veteran-owned small business concern" means a small business concern--

(1) Not less than 51 percent of which is owned by one or more veterans (as defined at 38 U.S.C. 101(2)) or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more veterans; and

(2) The management and daily business operations of which are controlled by one or more veterans.

"Women-owned small business concern" means a small business concern--

(1) That is at least 51 percent owned by one or more women; or, in the case of any publicly owned business, at least 51 percent of the stock of which is owned by one or more women; and

(2) Whose management and daily business operations are controlled by one or more women.

(d) Notice.

- (1) If this solicitation is for supplies and has been set aside, in whole or in part, for small business concerns, then the clause in this solicitation providing notice of the set-aside contains restrictions on the source of the end items to be furnished.
- (2) Under 15 U.S.C. 645(d), any person who misrepresents a firm's status as a small, HUBZone small, small disadvantaged, or women-owned small business concern in order to obtain a contract to be awarded under the preference programs established pursuant to section 8(a), 8(d), 9, or 15 of the Small Business Act or any other provision of Federal law that specifically references section 8(d) for a definition of program eligibility, shall--
- (i) Be punished by imposition of fine, imprisonment, or both;
 - (ii) Be subject to administrative remedies, including suspension and debarment; and
 - (iii) Be ineligible for participation in programs conducted under the authority of the Act.

(End of Provision)

K.7 Small Disadvantaged Business Status (52.219-22)(Oct 1999)

(a) General. This provision is used to assess an Offeror's small disadvantaged business status for the purpose of obtaining a benefit on this solicitation. Status as a small business and status as a small disadvantaged business for general statistical purposes is covered by the provision at FAR 52.219-1, Small Business Program Representation.

(b) Representations.

(1) General. The Offeror represents, as part of its offer, that it is a small business under the size standard applicable to this acquisition; and either-

(i) It has received certification by the Small Business Administration as a small disadvantaged business concern consistent with 13 CFR 124, Subpart B; and (A) No material change in disadvantaged ownership and control has occurred since its certification; (B) Where the concern is owned by one or more disadvantaged individuals, the net worth of each individual upon whom the certification is based does not exceed \$750,000 after taking into account the applicable exclusions set forth at 13 CFR 124.104(c)(2); and C) It is identified, on the date of its representation, as a certified small disadvantaged business concern in the database maintained by the Small Business Administration (PRO-Net); or

(ii) It has submitted a completed application to the Small Business Administration or a Private Certifier to be certified as a small disadvantaged business concern in accordance with 13 CFR 124, Subpart B, and a decision on that application is pending, and that no material change in disadvantaged ownership and control has occurred since its application was submitted.

(2) For Joint Ventures. The Offeror represents, as part of its offer, that it is a joint venture that complies with the requirements at 13 CFR 124.1002(f) and that the representation in paragraph (b)(1) of this provision is accurate for the small disadvantaged business concern that is participating in the joint venture. [The Offeror shall enter the name of the small disadvantaged business concern that is participating in the joint venture: _____].

(c) Penalties and Remedies. Anyone who misrepresents any aspects of the disadvantaged status of a concern for the purposes of securing a contract or subcontract shall-

- (1) Be punished by imposition of a fine, imprisonment, or both;
- (2) Be subject to administrative remedies, including suspension and debarment; and
- (3) Be ineligible for participation in programs conducted under the authority of the Small Business Act.

(End of Provision)

K. 8 PREVIOUS CONTRACTS AND COMPLIANCE REPORTS (52.222-22) (FEB 1999)

The Offeror represents that--

(a) It ___ has, ___ has not participated in a previous contract or subcontract subject to the Equal Opportunity clause of this solicitation;

(b) It ___ has, ___ has not, filed all required compliance reports; and

(c) Representations indicating submission of required compliance reports, signed by proposed subcontractors, will be obtained before subcontract awards.

(End of Provision)

K. 9 AFFIRMATIVE ACTION COMPLIANCE (52.222-25) (APR 1984)

The Offeror represents that (a) it ___ has developed and has on file, ___ has not developed and does not have on file, at each establishment, affirmative action programs required by the rules and regulations of the Secretary of Labor (41 CFR 60-1 and 60-2), or (b) it ___ has not previously had contracts subject to the written affirmative action programs requirement of the rules and regulations of the Secretary of Labor.

(End of Provision)

K. 10 RECOVERED MATERIAL CERTIFICATION (52.223-4) (OCT 1997)

As required by the Resource Conservation and Recovery Act of 1976 (42 U.S.C. 6962(c)(3)(A)(i)), the Offeror certifies, by signing this offer, that the percentage of recovered materials to be used in the performance of the contract will be at least the amount required by the applicable contract specifications.

(End of Provision)

K. 11 CERTIFICATION OF TOXIC CHEMICAL RELEASE REPORTING (52.223-13) (OCT 2000)

(a) Submission of this certification is a prerequisite for making or entering into this contract imposed by Executive Order 12969, August 8, 1995.

(b) By signing this offer, the Offeror certifies that--

(1) As the owner or operator of facilities that will be used in the performance of this contract that are subject to the filing and reporting requirements described in section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) (42 U.S.C. 11023) and section 6607 of the Pollution Prevention Act of 1990 (PPA) (42 U.S.C. 13106), the Offeror will file and continue to file for such facilities for the life of the contract the Toxic Chemical Release Inventory Form (Form R) as described in sections 313(a) and (g) of EPCRA and section 6607 of PPA; or

(2) None of its owned or operated facilities to be used in the performance of this contract is subject to the Form R filing and reporting requirements because each such facility is exempt for at least one of the following reasons: (Check each block that is applicable.)

___ (i) The facility does not manufacture, process, or otherwise use any toxic chemicals listed under section 313(c) of EPCRA, 42 U.S.C. 11023(c);

___ (ii) The facility does not have 10 or more full time employees as specified in section 313(b)(1)(A) of EPCRA, 42 U.S.C. 11023(b)(1)(A);

___ (iii) The facility does not meet the reporting thresholds of toxic chemicals established under section 313(f) of EPCRA, 42 U.S.C. 11023(f) (including the alternate thresholds at 40 CFR 372.27, provided an appropriate certification form has been filed with EPA);

___ (iv) The facility does not fall within Standard Industrial Classification Code (SIC) major groups 20 through 39 or their corresponding North American Industry Classification System (NAICS) sectors 31 through 33; or

___ (v) The facility is not located within any State of the United States, the District of Columbia, the Commonwealth of Puerto Rico, Guam, American Samoa, the United States Virgin Islands, the Northern Mariana Islands, or any other territory of possession over which the United States has jurisdiction.

(End of Provision)

K.12 BUY AMERICAN ACT CERTIFICATE (52.225-2) (May 2002)

(a) The Offeror certifies that each end product, except those listed in paragraph

(b) of this provision, is a domestic end product as defined in the clause of this solicitation entitled "Buy American Act-Supplies" and that the Offeror has considered components of unknown origin to have been mined, produced, or manufactured outside the United States. The Offeror shall list as foreign end products those end products manufactured in the United States that do not qualify as domestic end products.

(c) Foreign End Products:

Line Item No. Country of Origin

[List as necessary]

(d) The Government will evaluate offers in accordance with the policies and procedures of Part 25 of the Federal Acquisition Regulation.

(End of Provision)

K.13 HISTORICALLY BLACK COLLEGE OR UNIVERSITY AND MINORITY INSTITUTION REPRESENTATION (52.226-2) (MAY 2001)

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

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

"Minority Institution" means an institution of higher education meeting the requirements of Section 1046(3) of the Higher Education Act of 1965 (20 U.S.C. 1067k, including a Hispanic-serving institution of higher education, as defined in Section 316(b)(1) of the Act (20 U.S.C. 1101a)).

(b) Representation. The Offeror represents that it --

___ is ___ is not a historically black college or university;
___ is ___ is not a minority institution.

(End of Provision)

K.14 REPRESENTATION OF LIMITED RIGHTS DATA AND RESTRICTED COMPUTER SOFTWARE (52.227-15) (MAY 1999)

(a) This solicitation sets forth the work to be performed if a contract award results, and the Government's known delivery requirements for data (as defined in FAR 27.401). Any resulting contract may also provide the Government the option to order additional data under the Additional Data Requirements clause at 52.227-16 of the FAR, if included in the contract. Any data delivered under the resulting contract will be subject to the Rights in Data--General clause at 52.227-14 that is to be included in this contract. Under the latter clause, a Contractor may withhold from delivery data that qualify as limited rights data or restricted computer software, and deliver form, fit, and function data in lieu thereof. The latter clause also may be used with its Alternates II and/or III to obtain delivery of limited rights data or restricted computer software, marked with limited rights or restricted rights notices, as appropriate. In addition, use of Alternate V with this latter clause provides the Government the right to inspect such data at the Contractor's facility.

(b) As an aid in determining the Government's need to include Alternate II or Alternate III in the clause at 52.227-14, Rights in Data--General, the Offeror shall complete paragraph (c) of this provision to either state that none of the data qualify as limited rights data or restricted computer software, or identify to the extent feasible, which of the data qualifies as limited rights data or restricted computer software. Any identification of limited rights data or restricted computer software in the Offeror's response is not determinative of the status of such data should a contract be awarded to the Offeror.

(c) The Offeror has reviewed the requirements for the delivery of data or software and states **[Offeror check appropriate block]**--

___ None of the data proposed for fulfilling such requirements qualifies as limited rights data or restricted computer software.

___ Data proposed for fulfilling such requirements qualify as limited rights data or restricted computer software and are identified as follows:

NOTE: "Limited rights data" and "Restricted computer software" are defined in the contract clause entitled "Rights In Data--General."

(End of provision)

K.15 COST ACCOUNTING STANDARDS NOTICES AND CERTIFICATION (52.230-1)(JUNE 2000)

Note: This notice does not apply to small businesses or foreign Governments. This notice is in three parts, identified by Roman numerals I through III.

Offerors shall examine each part and provide the requested information in order to determine Cost Accounting Standards (CAS) requirements applicable to any resultant contract.

If the Offeror is an educational institution, Part II does not apply unless the contemplated contract will be subject to full or modified CAS coverage pursuant to 48 CFR 9903.201-2(c)(5) or 9903.201-2(c)(6).

I. DISCLOSURE STATEMENT - COST ACCOUNTING PRACTICES AND CERTIFICATION

(a) Any contract in excess of \$500,000 resulting from this solicitation will be subject to the requirements of the Cost Accounting Standards Board (48 CFR Chapter 99), except for those contracts which are exempt as specified in 48 CFR 9903.201-1.

(b) Any Offeror submitting a proposal which, if accepted, will result in a contract subject to the requirements of 48 CFR, Chapter 99 must, as a condition of contracting, submit a Disclosure Statement as required by 48 CFR 9903.202. When required, the Disclosure Statement must be submitted as a part of the Offeror's proposal under this solicitation unless the Offeror has already submitted a Disclosure Statement disclosing the practices used in connection with the pricing of this proposal. If an applicable Disclosure Statement has already been submitted, the Offeror may satisfy the requirement for submission by providing the information requested in paragraph (c) of Part I of this provision.

CAUTION: In the absence of specific regulations or agreement, a practice disclosed in a Disclosure Statement shall not, by virtue of such disclosure, be deemed to be a proper, approved, or agreed-to practice for pricing proposals or accumulating and reporting contract performance cost data.

(c) Check the appropriate box below:

___ (1) Certificate of Concurrent Submission of Disclosure Statement.

The Offeror hereby certifies that, as a part of the offer, copies of the Disclosure Statement have been submitted as follows:

(i) original and one copy to the cognizant Administrative Contracting Officer (ACO) or cognizant Federal agency official authorized to act in that capacity (Federal Official), as applicable, and

(ii) one copy to the cognizant Federal auditor.

(Disclosure must be on Form No. CASB DS-1 or CASB DS-2, as applicable. Forms may be obtained from the cognizant ACO or cognizant Federal official acting in that capacity and/or from the loose-leaf version of the Federal Acquisition Regulation.)

Date of Disclosure Statement: _____

Name and Address of Cognizant ACO or Federal Official Where Filed: ---

The Offeror further certifies that practices used in estimating costs in pricing this proposal are consistent with the cost accounting practices disclosed in the Disclosure Statement.

___ (2) Certificate of Previously Submitted Disclosure Statement.

The Offeror hereby certifies that the required Disclosure Statement was filed as follows:

Date of Disclosure Statement: _____

Name and Address of Cognizant ACO or Federal Official where filed:

The Offeror further certifies that the practices used in estimating costs in pricing this proposal are consistent with the cost accounting practices disclosed in the applicable Disclosure Statement.

___ (3) Certificate of Monetary Exemption.

The Offeror hereby certifies that the Offeror, together with all divisions, subsidiaries, and affiliates under common control, did not receive net awards of negotiated prime contracts and subcontracts subject to CAS totaling \$50 million or more in the cost accounting period immediately preceding the period in which this proposal was submitted. The Offeror further certifies that if such status changes before an award resulting from this proposal, the Offeror will advise the Contracting Officer immediately.

___ (4) Certificate of Interim Exemption

The Offeror hereby certifies that (i) the Offeror first exceeded the monetary exemption for disclosure, as defined in (3) of this subsection, in the cost accounting period immediately preceding the period in which this offer was submitted and (ii) in accordance with 48 CFR 9903.202-1, the Offeror is not yet required to submit a Disclosure Statement. The Offeror further certifies that if an award resulting from this proposal has not been made within 90 days after the end of that period, the Offeror will immediately submit a revised certificate to the Contracting Officer, in the form specified under subparagraph (c)(1) or (c)(2) of Part I of this provision, as appropriate, to verify submission of a completed Disclosure Statement.

CAUTION: Offerors currently required to disclose because they were awarded a CAS-covered prime contract or subcontract of \$50 million or more in the current cost accounting period may not claim this exemption (4). Further, the exemption applies only in connection with proposals submitted before expiration of the 90-day period following the cost accounting period in which the monetary exemption was exceeded.

II. COST ACCOUNTING STANDARDS - ELIGIBILITY FOR MODIFIED CONTRACT COVERAGE

If the Offeror is eligible to use the modified provisions of 48 CFR 9903.201-2(b) and elects to do so, the Offeror shall indicate by checking the box below. Checking the box below shall mean that the resultant contract is subject to the Disclosure and Consistency of Cost Accounting Practices clause in lieu of the Cost Accounting Standards clause.

___ The Offeror hereby claims an exemption from the Cost Accounting Standards clause under the provisions of 48 CFR 9903.201-2(b) and certifies that the Offeror is eligible for use of the Disclosure and Consistency of Cost Accounting Practices clause because during the cost accounting period immediately preceding the period in which this proposal was submitted, the Offeror received less than \$50 million in awards of CAS-covered prime contracts and subcontracts. The Offeror further certifies that if such status changes before an award resulting from this proposal, the Offeror will advise the Contracting Officer immediately.

CAUTION: An Offeror may not claim the above eligibility for modified contract coverage if this proposal is expected to result in the award of a CAS-covered contract of \$50 million or more or if, during its current cost accounting period, the Offeror has been awarded a single CAS-covered prime contract or subcontract of \$50 million or more.

(3) A statement indicating whether or not the costs associated with paragraph (c)(2) of this provision, including plant clearance and/or plant re-conversion costs, are included in its cost proposal.

(End of provision)

(End of Section)