

2. CONTRACT (Proc. Inst. Ident.) NO. NNJ09HA15C
 3. EFFECTIVE DATE 11/1/08
 4. REQUISITION/PURCHASE REQUEST/PROJECT NO. see block 15B

5. ISSUED BY NASA Johnson Space Center
 2101 NASA Parkway
 Houston, TX 77508-3696
 CODE BV
 6. ADMINISTERED BY (if other than item 5) NASA Johnson Space Center
 2101 NASA Parkway
 Houston, TX 77058-3696
 APPROVED
 ISC PROCUREMENT OFFICER

7. NAME AND ADDRESS OF CONTRACTOR
 United Space Alliance
 1150 Gemini Ave
 Houston, Texas 77058-3696
 8. DELIVERY DATE 10/28/08
 9. DISCOUNT FOR PROMPT PAYMENT

10. SUBMIT INVOICES (4 copies unless otherwise specified) TO ADDRESS SHOWN IN ITEM G.3
 CODE FACILITY CODE

11. SHIP TO/MARK FOR CODE
 12. PAYMENT WILL BE MADE BY SEE CLAUSE G.3 CODE

13. AUTHORITY FOR USING OTHER THAN FULL AND OPEN COMPETITION:
 10 USC 2304(c) () 10 USC 253(c) ()

15A. ITEM NO.	15B. SUPPLIES/SERVICES	15C. QUANTITY	15D. UNIT	15E. UNIT PRICE	15F. AMOUNT
1.	Integrated Mission Operations Contract				\$86,527,032.00
2.	IDIQ NTE Amount \$250M 4200266851 4200272165				
15G. TOTAL AMOUNT OF CONTRACT					\$86,527,032.00

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CONTRACTING OFFICER WILL COMPLETE ITEM 17 OR 18 AS APPLICABLE

17. CONTRACTOR'S NEGOTIATED AGREEMENT (Contractor is required to sign this document and return 3 copies to issuing office.) Contractor agrees to furnish and deliver all items or perform all the services set forth or otherwise identified above and on any continuation sheets for the consideration stated herein. The rights and obligations of the parties to this contract shall be subject to and governed by the following documents: (a) this award/contract, (b) the solicitation, if any, and (c) such provisions, representations, certifications, and specifications, as are attached or incorporated by reference herein. (Attachments are listed herein.)
 18. AWARD (Contractor is not required to sign this document.) Your offer on Solicitation Number including the additions or changes made by you which additions or changes are set forth in full above, is hereby accepted as to the items listed above and on any continuation sheets. This award consummates the contract which consists of the following documents: (a) the Government's solicitation and your offer, and (b) this award/contract. No further contractual document is necessary.

19A. NAME AND TITLE OF SIGNER (Type or print) Andrew B. Thomson, Manager, Contracts Management
 20A. NAME OF CONTRACTING OFFICER Billy Perry
 19B. NAME OF CONTRACTOR
 19C. DATE SIGNED 10/23/2008
 20B. UNITED STATES OF AMERICA
 20C. DATE SIGNED 10/24/08
 BY (Signature of person authorized to sign)
 BY (Signature of Contracting Officer)

SECTION A
SOLICITATION/CONTRACT FORM

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[END OF SECTION]

SECTION B

SUPPLIES OR SERVICES AND PRICES/COSTS

B.1 SUPPLIES AND/OR SERVICES TO BE FURNISHED

The Contractor shall perform Integrated Mission Operations as described in Section C.

(End of clause)

B.2 TYPE OF CONTRACT

This is a Cost Plus Award Fee (CPAF) contract.

(End of clause)

B.3 ESTIMATED COST AND AWARD FEE

B4

B.4 1852.232-81 CONTRACT FUNDING (JUN 1990)

(a) For purposes of payment of cost, exclusive of fee, in accordance with the *Limitation of Funds* clause, the total amount allotted by the Government to this contract is \$1,944,636. This allotment covers the estimated period of performance from the effective date of the contract through December 12, 2008.

(b) An additional amount of \$184,740 is obligated under this contract for payment of fee.
(End of clause)

B.5 INDEFINITE DELIVERY INDEFINITE QUANTITY (IDIQ) RATES

Offeror shall use the rates reflected in Attachment J-9, IDIQ Rates when pricing IDIQ tasks.

(End of clause)

[END OF SECTION]

SECTION C

Description/Specifications/Statement of Work

C.1 SCOPE OF WORK

The work the Contractor shall perform under this contract is described in the statement of work below:

INTEGRATED MISSION OPERATIONS CONTRACT

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INTEGRATED MISSION OPERATIONS CONTRACT (IMOC) INTRODUCTION

Integrated Mission Operations Contract (IMOC) provides support and products for the Mission Operations Directorate (MOD) and Flight Crew Operations Directorate (FCOD) ground-based human spaceflight operations capability development and execution. This includes the support to mission preparation (Plan), crew and flight controller training (Train), and real-time mission execution (Fly) activities related to Exploration operations and the International Space Station (ISS) operations (post Shuttle retirement). Operations capability development support is required from the Contractor as NASA defines operations requirements associated with the emerging programs for the Exploration initiatives (primarily the Constellation Program, but to a lesser extent the Lunar Precursor Robotic Program, the Human Research Program, the Exploration Technology Program, and the Commercial Crew and Cargo Program). Initially, the IMOC contract will provide for Human Spaceflight Operations capability development exclusive of the Space Shuttle Program (SSP) and International Space Station Program (ISSP). Post Shuttle retirement, this contract will also include support and products for the ISS Plan-Train-Fly (PTF) mission operations.

The IMOC will initially provide NASA Constellation Program (CxP) PTF support that fully replaces the NASA CxP support tasks performed under the Statement of Work (SOW) Section 1.10, Constellation Support Provisioning, of the Space Program Operations Contract (SPOC). Upon completion of the NASA work for the SSP missions, the IMOC will take over the NASA ISS support previously performed under the SPOC contract.

The Government will lead and is responsible for mission execution and requisite mission preparation tasks, new capability development, non-mission specific Programmatic support tasks, and disposition of anomalies.

The Contractor will provide technical information, analysis, and relevant perspectives gained through operational experience. The Government, using subjective judgment, will define requirements and develop specifications for future use. The Contractor will not be required to prepare, or assist in preparing, work statements, specifications, or requirements to be used in competitively acquiring services, or to provide material leading directly, predictably, and without delay to such work statements, specifications, or requirements unless the intended procurement is a sole source to the Contractor, the Contractor has participated in the development and design work, or unless more than one contractor has been involved in preparing the work statement. In addition, the Contractor will not be required to evaluate its contractual performance or products or that of its competitors.

1.0 MANAGEMENT

Management tasks are to be performed by the Contractor in order to develop and deliver the required support to MOD and FCOD for ground-based human spaceflight operations.

1.1 MANAGEMENT PROCESSES, PLANNING, AND REVIEWS

The Contractor shall manage the IMOC personnel and processes to accomplish the requirements identified below.

The Contractor shall prepare all contract documentation in accordance with the DRDs.

The deliverables associated with the planning DRDs, once approved, shall become part of the contract, and the Government will utilize these deliverables to evaluate the Contractor's performance.

The Contractor shall comply with all applicable regulations, NASA Directives, JSC Directives, and JSC internal documents (Attachment J-3).

The Contractor shall obtain NASA approval prior to initiating or terminating any activity that requires a change to a NASA or other NASA contractor process. In the event that this change may impact this or other contract value, the approval shall be obtained from the Contracting Officer.

The Contractor shall develop an IMOC Training and Certification Support Plan (DRD 1.1-a) that will detail the process for completion of certification training by employees. The Contractor shall create and implement an IMOC Critical Skill Retention Plan (DRD 1.1-b) to provide retention capability for certified flight controllers, instructors, and analysts.

The Contractor shall utilize government-furnished discrepancy and anomaly reporting systems and databases for NASA systems including the following:

- a. NT/Quality Assurance Discrepancy Reporting and Tracking System (QARC).
- b. EG/Distributed Defect Tracking System.
- c. ISS Problem Reporting and Corrective Action (PRACA).
- d. ISS Change Paper and Version Control System (PVCS).
- e. DA/Discrepancy Report Tracking System (DRTS).
- f. DA/Joint Execute Package Development & Integration (JEDI).
- g. DA/NBL/SVMF Discrepancy Reporting Systems.
- h. Facility Development Operations Contract discrepancy reporting systems.

The Contractor shall report discrepancies and anomalies to the IMOC-controlled processes in accordance with the IMOC Quality Management Plan (DRD 1.10) and the IMOC Performance Report (DRD 1.1-c).

The Contractor shall make recommendations on how to reduce costs in order to achieve the NASA cost reduction goals while maintaining technical capability. The Contractor shall recommend revisions to the NASA processes for efficiency and accuracy and participate in evaluations of recommended changes. (IMOC Performance Report - DRD 1.1-c)

The Contractor shall participate in and support NASA management meetings and reviews. These meetings include Flight Operations Integration Group (FOIG), Process Integrity Metrics Review (PIMR), MOD Safety Committee, MOD Staff Meeting, and MOD Leadership Council.

The Contractor shall provide and maintain an IMOC Management Plan (DRD 1.1-d). The Contractor's management structure shall fully integrate all related management plans, including those of its subcontractors and major vendors. The Contractor shall include a continuous improvement (CI) plan in the IMOC Management Plan and how this CI plan is a part of management policies, procedures, and techniques. The Contractor shall address the functions and data requirements described in this SOW in the management plan.

The Contractor shall conduct Contract Management Reviews (CMR) to provide NASA with current status of the Contractor's financial, workforce, and technical activities. CMRs shall be conducted in accordance with an agreed to schedule. The details of what will be reported are defined in the IMOC Performance Report (DRD 1.1-c).

- a. The Contractor shall develop an IMOC Organizational Conflict of Interest (OCI) Avoidance Plan (DRD 1.1-e) that will support NASA's OCI mitigation process per the MOD Government OCI Assessment of IMOC

Deliverables

The Contractor shall deliver and maintain the following document(s):

- DRD 1.1-a: IMOC Training and Certification Support Plan
- DRD 1.1-b IMOC Critical Skill Retention Plan
- DRD 1.1-c: IMOC Performance Report
- DRD 1.1-d: IMOC Management Plan
- DRD 1.1-e: IMOC Organizational Conflict of Interest (OCI) Avoidance Plan

1.2 RISK MANAGEMENT

The Contractor shall implement risk management policies, processes, and standards as defined by NASA and shall manage risks according to the IMOC Risk Management Plan (DRD 1.2). Risk management requirements include:

- a. The Contractor shall identify, evaluate, manage, and control the safety, technical, cost, and schedule-related risks associated with all aspects of the performance of this contract.

- b. The Contractor shall provide substantiating data for each identified risk in the form of historical information and analysis.
- c. The Contractor shall communicate identified risks to NASA management.
- d. For Contractor proposed process changes, the Contractor shall provide a risk assessment and corresponding issues to NASA management.
- e. The Contractor shall include recommendations of risk mitigation as part of their assessment.

Deliverables

The Contractor shall deliver and maintain the following document(s):

- DRD 1.2: IMOC Risk Management Plan

1.3 PROJECT INFORMATION RESOURCES AND PERFORMANCE MANAGEMENT

The Contractor shall provide and maintain an integrated Performance Measurement System (PMS) that provides resource and financial management for the accumulation, documentation, and analysis of cost and workforce data. The system will be the basis for communication with NASA concerning financial planning and control, accounting of accrued expenditures and other liabilities, evaluation of cost performance, and forecasting of cost and workforce requirements. The Contractor shall provide the baseline of financial parameters.

The Contractor shall provide an IMOC Contract Work Breakdown Structure (CWBS) (DRD 1.3-a). The MOD WBS for this contract will be the IMOC SOW structure with delimiters for the MOD organizations and programs supported.

The Contractor shall provide and present cost and technical reporting and budgetary estimates per the IMOC Financial Management Report (NF533) - DRD 1.3-b, and IMOC Performance Report - DRD 1.1-c. Reports and estimates will correspond to the government fiscal year. NF533 will provide cost reporting by fund source and WBS including:

- a. Elements of cost and workforce including labor equivalent personnel (EP).
- b. Overhead costs.
- c. Other direct and indirect costs.

The Contractor shall provide an on-line database accessible to NASA which provides accurate and timely resource information such as resource plans, workforce staffing, and actual costs.

The Contractor shall provide financial planning data to support the government budget process including:

- a. Planning, Programming, Budgeting, and Execution [PPBE] budget calls
- b. Operating plan budget calls
- c. Construction of Facilities (Coff) budget calls
- d. Support special requests for budget impacts.

The format and content of the Contractor's inputs and supporting rationale shall be in accordance with the budget or special request guidelines and reporting format specified by NASA. The Contractor shall provide cost and schedule integration when requested by NASA.

The Contractor shall support programmatic technical, cost, and schedule reviews, providing NASA with insight into the Contractor's, subcontractors', and vendors' overall technical, schedule, and cost performance. The presentations shall depict performance measurement, accomplishments, issues, corrective actions, and enhanced variance reporting which will provide more insight into the cause of the variance.

The Contractor shall track and report on-site and off-site workforce per the IMOC Workforce Report (DRD 1.3-c).

The Contractor shall develop and maintain performance metrics which effectively indicate the level of success in execution of the contract requirements. This task includes definition and development of the metrics; correlation of the metrics to the requirements; and measurement of management responsiveness to the performance indicated by the metrics. Performance reporting (IMOC Performance Report - DRD 1.1-c) is also required on subcontracts that the Contractor has determined, based on risk, schedule criticality, or dollar value, have the potential to impact the successful fulfillment of this contract. The Contractor shall provide NASA direct electronic access to the Contractor PMS including direct log-on capability into the system from JSC intranet.

For development and production efforts which may be authorized in this contract, the Contractor shall provide performance reporting (DRD 1.1-c) in accordance with NPD 9501.1, NASA Contractor Financial Management Reporting System, which correlates work accomplished and actual costs against baseline cost plans and schedules.

The Contractor shall provide a summary of the performance report in the CMR. This summary report includes technical issues and accomplishments, analysis of cost and schedule performance, and corrective actions in problem areas.

Deliverables

The Contractor shall deliver and maintain the following document(s):

- DRD 1.3-a: IMOC Contract Work Breakdown Structure (CWBS)
- DRD 1.3-b: IMOC Financial Management Report (NF533)
- DRD 1.3-c: IMOC Workforce Report

1.4 CONTRACT MANAGEMENT

The Contractor shall provide overall management of the contract requirements.

The Contractor shall manage and control the work and resources within discrete program funding levels.

1.4.1 PRIME CONTRACT MANAGEMENT

The Contractor shall perform all tasks associated with administering this contract.

1.4.2 SUBCONTRACT MANAGEMENT

The Contractor shall accomplish the management and technical control of subcontractor(s) required to fulfill the contract. The Contractor shall define the managing of the subcontract effort as described in the IMOC Management Plan (DRD 1.1-d).

The Contractor shall provide management visibility into all aspects of subcontractor activities, and this visibility shall be integrated with other required management systems and reporting requirements of the prime contractor.

1.5 INFORMATION, DOCUMENT, AND RECORDS MANAGEMENT

The Contractor shall provide information, document, and records management in support of contract requirements.

1.5.1 INFORMATION AND DOCUMENT MANAGEMENT

The Contractor shall develop, maintain, operate, and secure information systems which provide for the management, preparation, publication, control, and dissemination of information and documents required by this contract. The Contractor's information management activities shall include operating and maintaining a document and data repository or repositories for originals in any media including classified and proprietary documents. The Contractor shall produce and maintain an IMOC Document Data Management Plan (DRD 1.5.1) compliant with JPD 2314.2, Managing Internal JSC Documents and other associated document control Directives identified in J-3 which will document its process for the management of all data and documents generated under this contract.

The Contractor shall maintain files of the contractor documentation required to perform all the tasks in this SOW. The Contractor shall establish a formal documentation release system and a system for rapid retrieval of all records.

The Contractor shall include data security (integrity, availability, confidentiality) requirements to assure that the data, processes, and tools are protected from security breaches.

The Contractor shall ensure that their IT systems are interoperable with NASA IT systems.

Deliverables

The Contractor shall deliver and maintain the following document(s):

- DRD 1.5.1: IMOC Document and Data Management Plan

1.5.2 RECORDS MANAGEMENT

The Contractor shall maintain accurate originals. The Contractor shall comply with the records control processes as required in the NPD 1440.6, *NASA Records Management*; NPR 1441.1, *NASA Records Retention Schedules*; and JPR 1440.3, *JSC Files and Records Management Procedures*.

The Contractor shall maintain files of the contractor documentation required to demonstrate performance of all the tasks in this SOW and shall establish a system for rapid retrieval and release of all records.

The Contractor shall provide an IMOC Records Management Plan (DRD 1.5.2). This plan shall document the Contractor's processes for identifying, collecting, maintaining, and archiving all records generated during the performance of all tasks in this SOW. This shall include plans for disposition of these records at the end of the contract.

Deliverables

The Contractor shall deliver and maintain the following document(s):

- DRD 1.5.2: IMOC Records Management Plan

1.6 CONFIGURATION MANAGEMENT

The Contractor shall provide an IMOC Configuration Management Plan (DRD 1.6). The Contractor's Configuration Management Plan shall provide the following:

- a. Configuration identification.
- b. Configuration control.
- c. Configuration status accounting.
- d. Configuration management verification and audits.

Deliverables

The Contractor shall deliver and maintain the following document(s):

- DRD 1.6: IMOC Configuration Management Plan

1.7 PROPERTY MANAGEMENT

The Contractor shall provide an IMOC Government Property Management Plan (DRD 1.7-a) for contractor accountable NASA property.

Deliverables

The Contractor shall deliver and maintain the following document(s):

- DRD 1.7-a: IMOC Property Management Plan

1.8 SECURITY AND TECHNOLOGY PROTECTION MANAGEMENT

The Contractor shall establish an effective and comprehensive program that encompasses control of classified information and material and sensitive but unclassified information, material, and services (including export controlled, proprietary data, and material). The Contractor shall provide an IMOC Security Management Plan (DRD 1.8-a).

The Contractor shall maintain a technology protection program, and provide an IMOC Technology Protection Control Plan (DRD 1.8-b). The Contractor's technology protection program shall encompass control of classified information and material and sensitive but unclassified information, materials, and services (including data and material that are subject to export control and proprietary requirements).

The Contractor shall provide internal export control functions for hardware, services, software, and data requiring export in the execution of specific contract responsibilities in accordance with the Department of Commerce (DOC) Export Administration Regulations (EAR), the Department of State (DOS) International Traffic in Arms (ITAR), and the NASA Export Control Program (ECP). The Contractor shall ensure that in the absence of NASA exemptions or exceptions, that licenses and Technical Assistance Agreements (TAAs) are in place to support exports. The Contractor shall provide the methodology and processes for the application of risk assessment to all security and technology protection activities and the integration of security and technology protection management across the contract and its subcontractors.

Deliverables

The Contractor shall deliver and maintain the following document(s):

- DRD 1.8-a: IMOC Security Management Plan
- DRD 1.8-b: IMOC Technology Protection Control Plan

1.9 SAFETY, QUALITY ASSURANCE, MISSION ASSURANCE, AND ENVIRONMENTAL MANAGEMENT

Safety, Reliability and Quality Assurance includes the integration of all Safety and Mission Assurance activities (safety, reliability, maintainability, and quality) into mission operations to ensure the mitigation of risk.

1.9.1 OCCUPATIONAL SAFETY

The Contractor shall implement an occupational safety and health (OS&H) program that monitors activities to ensure compliance with NASA and Occupational Safety and Health Administration (OSHA) requirements.

The Contractor shall protect personnel, property, and equipment.

The Contractor shall develop, implement and maintain a Safety and Health Plan to establish Safety, Health, and Environmental Compliance requirements for providing support to NASA organizations (IMOC Safety and Health Plan - DRD 1.9.1-a) including:

- a. Processes for reporting and investigating mishaps within facilities controlled by the Contractor.
- b. Provisions for NASA approval of risk associated with occupational hazards not eliminated or controlled.
- c. Reporting, investigation, and corrective actions in accordance with guidelines found in NPR 8621.1, NASA Procedural Requirements for Mishap Reporting and Close Call Reporting, Investigating, and Recordkeeping.
- d. Plans for contingency and emergency situations.
- e. Exercises and simulations that promote employees awareness and action to contingency and emergency situations and participation in government exercises and simulations upon request.

The Contractor shall report and investigate those mishaps resulting in personnel injuries or damage to NASA property. The Contractor shall provide summary data on all mishaps that occur on NASA property and contractor operated sites (IMOC Safety Summary Report - DRD 1.9.1-b). The report shall include:

- a. Assessments of accident impacts to cost.
- b. Schedule and mission performance
- c. Remedial and corrective actions performed.

The Contractor shall report monthly metrics for the Contractor's safety and health program (IMOC Monthly Safety and Health Metrics - DRD 1.9.1-c).

The Contractor shall provide a safety and health program that complies with the JSC on-site Voluntary Protection Program (VPP) Star Site certification.

The Contractor shall provide a safety and health program self evaluation in accordance with the IMOC Safety and Health Program Self Evaluation (DRD 1.9.1-d).

Safety and health discrepancies shall be reported per the IMOC Performance Report (DRD 1.1-c).

Deliverables

The Contractor shall deliver and maintain the following document(s):

- DRD 1.9.1-a: IMOC Safety and Health Plan
- DRD 1.9.1-b IMOC Safety Summary Report
- DRD 1.9.1-c: IMOC Monthly Safety and Health Metrics
- DRD 1.9.1-d: IMOC Safety and Health Program Self Evaluation

1.9.2 MISSION AND QUALITY ASSURANCE

The mission and quality assurance requirements are embedded in the Human Spaceflight Mission Operations Support sections (2.0, 3.0, 4.0, and 5.0) and section 6.0 FCOD Support.

1.9.3 ENVIRONMENTAL MANAGEMENT

The Contractor shall protect the environment by ensuring that all work performed and equipment used on-site at JSC, Ellington Field, Sonny Carter Training Facility, and El Paso Forward Operating Location to fulfill the requirements of this contract are in compliance with all Federal, state, and local regulations and public laws, and the following NASA JSC directives: JPD 8500.1, JSC Environmental Excellence Policy; JPR 8550.1, JSC Environmental Compliance Procedural Requirements; JPR 8553.1, JSC Environmental Management System Manual; CWI JE9W-06, EMS Aspect/Impact Assessment and EMP Process; NPR 8570.1, Energy Efficiency and Water Conservation; JSC's Energy and Water Conservation 5-Year Plan; and CWI J69W-03, Energy Conservation (Reference Section H). The Contractor shall provide data on affirmative procurement, waste reduction activity, energy efficient product procurement, and ozone depleting substances in accordance with DRD 1.9.3, Environmental and Energy Consuming Product Compliance Reports.

Deliverables

The Contractor shall deliver and maintain the following document(s):

- DRD 1.9.3: IMOC Environmental and Energy Consuming Product Compliance Reports

1.10 QUALITY MANAGEMENT SYSTEM AND ADMINISTRATION

The Contractor shall develop, implement, and maintain a Quality Management System which is certified by a third party and is compliant with the ANSI/ISO/ASQ Q9001-2000 Quality Management Systems - Requirements (IMOC Quality Management Plan - DRD 1.10).

The Contractor shall provide input to quality management forums. (e.g., the Quality System Panel (QSP), the Quality System Management Review (QSMR)).

The Contractor shall support government audit and surveillance of Contractor plans, procedures, and processes when deemed necessary by the government. These audits and surveillances will provide understanding and insight of processes and procedures that NASA has identified as critical; have the potential for impact to future mission schedules, or as needed. Government audits and surveillances will include all disciplines and tasks which are involved with or support mission operations, safety and quality assurance, logistics, procurement, and financial operations.

Deliverables

The Contractor shall deliver and maintain the following document(s):

- DRD 1.10: IMOC Quality Management Plan

HUMAN SPACEFLIGHT MISSION OPERATIONS SUPPORT

2.0 OPERATIONS INTEGRATION

Operations Integration is considered to be that support which is not unique to PTF but is cross-functional throughout operational areas of support.

2.1 ADMINISTRATIVE SUPPORT

The Contractor shall provide administrative logistical support, documentation preparation, agenda preparation, and minute's publication for various meetings. These include meetings such as the Flight Operations Reviews (FORs), MOD Flight Readiness Reviews (FRRs), Flight Techniques Panel (FTP) meetings, Joint Operational Panel (JOP) meetings, MOD Projects Integration Board (MPIB) meetings, International Display and Graphics Standards (IDAGS), Flight Rules Control Board (FRCB), Flight Operations Integration Group (FOIG), and Mission Operations Project Control Board (MOPCB) meetings.

The Contractor shall provide export control compliance services (ref MOD Export Control Process DA-WI-05 and JSC Export Compliance Work Instruction J29W.01) including:

- a. Assessment of export classification (ITAR versus EAR).
- b. Evaluation of exemptions or exceptions.
- c. Preparation for NASA signature of the paperwork required for export control (such as JSC Forms 1724 and 1735, Controlled Area Access cards).

2.2 SAFETY INTEGRATION AND ANALYSIS

The Contractor shall provide assessments and recommendations for NASA on spacecraft and payload safety requirements and compliance. This includes safety issue resolution, real-time safety analysis, and safety knowledge for various pre-flight planning meetings (e.g., Joint Operations Panels, Flight Techniques, and Safety Review Panels). The Contractor shall provide safety assessments and recommendations on design and requirements; procedures and flight rules; integrated hazard analyses (including facilitating and technical input to operational controls agreements (such as Operational Controls Agreements Database(OCAD)); integrated safety verification reports (e.g., Independent Safety Verification Review (ISVR)); safety data packages; test assessments; reports; and development test reviews. The Contractor shall participate in working groups, reviews, control boards, and panels in order to provide technical operational inputs into safety analysis and integration.

The Contractor shall present the MOD position in safety forums such as the Constellation Safety Engineering Review Panel (SERP), S&MA Safety Boards and Payload Safety Panel.

The Contractor shall provide technical inputs for the maintenance of MOD Safety Reliability & Quality Assurance (SR&QA) Plan (JSC 36528). The Contractor shall provide support in the assessment for compliance of MOD SR&QA Plan.

The Contractor shall prepare Hazard Analyses per JPR 1700.1 JSC Safety and Health Handbook for IMOC activities to comply with facility system safety requirements to identify critical items for mitigation or elimination (e.g., Space Vehicle Mockup Facility user testing).

2.3 DOCUMENTATION AND ELECTRONIC MEDIA SUPPORT

2.3.1 OPERATIONS DOCUMENTATION MANAGEMENT

The Contractor shall develop, maintain, and ensure technical accuracy of mission operations documentation to support missions and training. The Contractor shall ensure the document's content technically fulfills mission requirements. The Contractor shall attend procedure validation sessions and hardware and software testing in order to obtain technical content. The Contractor shall ensure that the document is published and distributed to a specified schedule based on program or mission milestones in order to effectively support the training and mission schedules. This includes crew procedures books, flight controller procedures book, mission constraints documentation, mission preparation procedures, user guides, and technical operations support documentation (e.g., systems manuals, drawings, schematics).

2.3.2 FLIGHT RULES SUPPORT

The Contractor shall support Flight Rules generation and publication as required in the IMOC Flight Rules Production Plan (DRD 2.3.2). Support includes:

- a. Editing technical inputs into the flight rule document standards and formats.
- b. Attending meetings to discuss schedules and flight rules production processes.
- c. Maintaining and distributing Flights Rules documents.

Deliverables

The Contractor shall deliver and maintain the following document(s):

- DRD 2.3.2: IMOC Flight Rules Production Plan

2.3.3 EDITORIAL SUPPORT

The Contractor shall provide the logistical function of documentation formatting, editing, updating, reviewing, and publishing, and distribution of mission operations documentation in hardcopy and in electronic media.

The Contractor shall develop new and modify existing processes and document them in the IMOC Guide for Editorial and Logistical Support to Operations Documentation (DRD 2.3.3) which includes configuration management processes that involve the following:

- a. Receiving written or electronic material from MOD content owners and formatting the content as required by the owner's requirements or NASA standards.
- b. Verifying and incorporating crew procedures standards.
- c. Maintaining schedule for technical review and document publication.
- d. Implementing document guidelines.

The Contractor shall implement a review process that will ensure content true to the MOD owner's input and publication by the owners need date or as negotiated.

Deliverables

The Contractor shall deliver and maintain the following document(s):

- DRD 2.3.3: IMOC Guide for Editorial and Logistical Support to Operations Documentation

2.3.4 ELECTRONIC MEDIA SUPPORT

The Contractor shall provide administrative support for electronic media used in MOD. This includes records databases, training and evaluation records for crew members and flight controller, instructors, and analysts; training lesson/flow database (e.g., crew training catalog), and other distributed electronic media. The Contractor shall coordinate inputs from MOD users, update metadata, ensure consistency of content across users,

facilitate requirements and discrepancy reporting, and perform general maintenance of data.

The Contractor shall provide technical assistance for the development and administration of web and SharePoint sites.

2.3.5 LIBRARY AND DOCUMENTATION MAINTENANCE

The Contractor shall maintain the MOD Libraries and console documentation in order to effectively and efficiently support the day-to-day office operations of MOD and real-time mission operations (IMOC MOD Library Handbook and Glossary - DRD 2.3.5) which include:

- a. Real-Time Mission Support Services:
 1. Real-time mission printing and distribution capabilities.
 2. Administrative Mission Support.
 - i. Conference Room Management (currently 5 conference rooms to manage).
 - ii. Documentation Updates (e.g., ODF, Flight Rules, Handbooks).
 - iii. Shift Recorder updates.
 - iv. Maintain control room supplies (printers, office supplies).
 - v. Assign headset lockers.
 - vi. Maintain list of console telephone numbers.
- b. Technical Data Services:
 1. Library Collections:
 - i. Collection/File Maintenance.
 - ii. Perform Checkout/in of training materials, reference data, etc.
 - iii. Organize collections.
 - iv. Perform Archival of library collections.
 2. Customer Service:
 - i. Research Assistance for Engineering Data.
 - ii. Provide training on use of JSC electronic repositories.
 - iii. Plot/print engineering drawings.
 3. Verification tasks:
 - i. Performs CoFR Verification Tasks.
 - ii. Drawings, Technical Data (Electronic or Hardcopy).

Deliverables

The Contractor shall deliver and maintain the following document(s):

- DRD 2.3.5: IMOC MOD Library Handbook and Glossary

2.4 TECHNICAL INTEGRATION AND PRODUCTION PROCESS

The Flight Production Process (FPP) is the method for preparing all systems, products, and personnel to ensure mission operations readiness.

2.4.1 TECHNICAL INTEGRATION AND PRODUCTION PROCESS DEVELOPMENT

The Contractor shall participate in the development of an efficient flight production process in support of MOD mission preparation. This includes support to the development of the flight production integration process.

- a. The Contractor shall participate in trade studies and benchmarking to continuously seek improved flight production processes.
- b. The Contractor shall support the development of the architecture and workflow taking advantage of lessons learned from previous manned space flight programs. This support shall include risk assessments of proposed architecture.
- c. The Contractor shall perform research into the Shuttle and ISS Programs' history to determine applicability of existing processes as candidates for reuse and document these findings with rationale as input to the NASA-led effort to capture lessons learned.
- d. The Contractor shall participate in flight production workflow process testing and validation by completing the test objectives in the MOP FPP Test Plan and ensuring all the FPP verification requirements contained in the MOP System Requirements Document (SRD) are met according to the strategy and processes defined in the MOP Master Verification Plan (CxP 72133).
- e. The Contractor shall perform development schedule integration, flight production schedule integration, and schedule performance measurement assessments.
- f. The Contractor shall support the configuration management of the NASA formal change process for the production templates.
- g. The Contractor shall make recommendations for the development of a compliance process for MOD to assure continuity of requirements implementation across all production disciplines.
- h. The Contractor shall assist MOD in the metrics development of the flight production process.
- i. The Contractor shall support MOD's development of plans and processes for production data retention and reacquisition.

2.4.2 TECHNICAL INTEGRATION AND PRODUCTION PROCESS SUPPORT

The Contractor shall provide Flight Production Managers (FPMs) and Schedulers for integration of flight product deliveries (Ref DA6-WI-1 and 5).

The Contractor shall provide Test Managers in support of flight product delivery validation and verification. (Ref DA6-WI-5 and 11).

The Contractor shall provide administrative support to the MOD compliance process of ensuring continuity of requirements implementation, across all production disciplines, for flight readiness (Ref DA6-WI-2).

The Contractor shall provide analysis and data to support the government-managed manifest planning efforts. This includes:

- a. Risk mitigation assessments (cost and schedule).
- b. Assessing potential impact to mission performance.
- c. Conducting internal studies to reduce turnaround times.
- d. Manifest requirements analysis.

2.5 SPECIAL DEVELOPMENT PROJECTS

The Contractor shall support special Plan-Train-Fly projects. Projects shall be conducted according to the NASA Program and Project Management Processes and Requirements document (NPR 7120.5), the MOP System Engineering Management Plan (CxP - 72132), and the MOD Software Management Plan (JSC 63756). The format and process for reporting on these projects shall be specified by NASA.

3.0 MISSION OPERATIONS PREPARATION (PLAN)

Mission Operations Planning is the preparation for flight and mission execution. Operation planning begins with establishing mission objectives and priorities and continues through preflight preparations. Operations planning uses mission requirements to develop integrated, executable plans for both the crew and ground team members and the supporting operational procedures needed to accomplish mission objectives. It includes all aspects of mission timeline development (encompasses crew activities, trajectory design, consumables planning, ground commanding events, power resource planning, communication coverage, EVA activity planning, and robotic planning), cargo and payload integration, flight rules development, crew and ground procedure development, command and telemetry definitions, flight techniques development, and utilizing post-flight reports, debriefs and anomaly resolution plus safety and hazard reports during the planning phase. Mission plans are constrained by and conform to the launch commit criteria, operational flight rules, vehicle hardware and software configuration, operational ground rules and constraints, mission priorities and objectives, and engineering specifications that define acceptable flight envelopes, flight safety, and

human rating requirements, and other NASA and programmatic policies and regulations. Integration aspects of operational planning requires the participation in meetings in order to acquire, coordinate, and document operational and technical information that impacts flight safety and mission success.

3.1 DEVELOP MISSION OPERATIONS CAPABILITY AND PROCESSES

The Contractor shall provide support to NASA's development, assessment, and integration of mission design and operations processes including:

- a. Supporting the development of operational baselines, operations concepts, mission timelines, and associated documentation.
- b. Assisting in the development, review, and performance of trade studies for operational concepts.
- c. Assisting in the development and evaluation of various mission scenarios, cockpit display options, trajectory profiles, consumables profiles, and flight techniques.
- d. Participating in the development of processes for the production, maintenance, and distribution of operations documentation.
- e. Providing operations technical feedback and assessments to the design requirements for vehicle, cargo, flight equipment, and ground systems.
- f. Attending design reviews and testing for vehicles, cargo, and flight equipment in order to convey the operations perspective and gather knowledge.
- g. Analyzing and evaluating existing operations processes and products.
- h. Evaluating lessons learned from previous flights and programs.
- i. Conducting analog missions in order to develop operational concepts.
- j. Identifying improvements.

3.2 INPUTS TO PROGRAM FOR MISSION OPERATIONS PREPARATION

Program level planning support involves studying the operational feasibility of Program level mission requirements and priorities, in the context of mission objectives. It entails support to programs in the strategic and tactical planning timeframes.

3.2.1 PROGRAM LEVEL SUPPORT

3.2.1.1 PROGRAM LEVEL BOARD SUPPORT

The Contractor shall provide program level board support by:

- a. Providing technical inputs to the MOD representatives to the programmatic boards, associated sub-boards, and panels.
- b. Presenting the MOD position.

- c. Developing and delivering presentations.
- d. Identifying impacts due to proposed requirements changes.
- e. Exchanging technical vehicle and operations information.
- f. Interfacing with Constellation and ISS organizations to resolve flight preparation process implementation issues.
- g. Participating in trade studies, assessment activities, and action item resolution as necessary, to support mission preparation.

3.2.1.2 MOD COORDINATION OF PROGRAM LEVEL CR

The Contractor shall participate in the coordination, technical review, and distribution of Program Level Change Requests (CRs) and presentation material.

3.2.2 VEHICLE REQUIREMENT AND DESIGN SUPPORT

The Contractor shall provide operations technical feedback and assessments to the NASA design requirements for vehicle, cargo, flight equipment, and ground systems which includes:

- a. Supporting development and design reviews; and technical meetings in order to convey the operations perspective to the design process and gather knowledge.
- b. Documenting recommendations to support vehicle, cargo, and ground systems design and requirement reviews.
- c. Reviewing and providing operational feedback to test plans and objectives.
- d. Supporting vehicle tests including hardware, vehicle stand alone, vehicle integrated, and end-to-end with the Mission Control Center (MCC).
- e. Providing analysis, concepts of operational scenarios, trade study support, test and verification plan inputs, and lessons learned inputs.
- f. Providing support for program and project efforts of design engineering, software engineering, specialty engineering, human rating, system architecture, and integrated test planning, system requirements recommendations, configuration control, and risk management activities.
- g. Supporting operations integration tasks, program and project life cycle tasks, and systems flight control tasks.

3.2.3 MISSION DEFINITION, EVALUATION, AND STRATEGIC PLANNING

3.2.3.1 MISSION DEFINITION AND EVALUATION

The Contractor shall participate in the integration of mission requirements, operational implementation concepts, products, and plans by:

- a. Supporting derivation of operations baselines and mission architectures requirements.
- b. Ensuring consistency with the vehicle requirements and operations baseline.
- c. Developing reports, assessments, and technical evaluations in order to effectively assess, verify, and validate program-level requirements and requirement changes that have potential impact to crew procedures, safety, or operations.
- d. Performing trade studies, analysis, and risk assessments.

These inputs will support NASA determination of the vehicle and operations architectures, and requirements.

3.2.3.2 FLIGHT SOFTWARE REQUIREMENTS EVALUATION

The Contractor shall participate in the MOD operational assessment of flight software requirements/discrepancies and integration of flight software technical issues, operational impacts, and ground system impacts resulting from new requirements and discrepancies.

3.2.3.3 STRATEGIC PLANNING ASSESSMENTS

The Contractor shall perform strategic planning and assessments for mission operations which includes:

- a. Performing timeline assessments, which include mission overviews and day-by-day mission summaries.
- b. Evaluating programmatic and MOD-derived flight-specific assumptions and requirements.
- c. Determining mission-specific configuration issues and constraints that involve items such as scheduling, assumptions, manifest, and robotic maneuvers.
- d. Integrating information from program and MOD meetings, boards, and forums.
- e. Verifying that plans, functionalities, and operations are consistent with hardware/software designs and baseline requirements.
- f. Presenting operational requirements of missions at program and MOD meetings, boards, and forums.

3.3 MISSION DEVELOPMENT

3.3.1 MISSION PLANNING

3.3.1.1 MISSION PLANNING SUPPORT

The Contractor shall provide mission specific and generic planning inputs to NASA's mission planning process to ensure all mission objectives, requirements, and constraints are properly integrated and implemented in the mission plan. NASA determines and manages the planning process and the mission plan. The Contractor shall support NASA's resolution of operational issues and development of products required for mission execution. Mission planning products and activities include the following:

- a. The Contractor shall develop integrated and executable activity, attitude, trajectory, consumable, resource, robotic, and communication plans and schedules.
- b. The Contractor shall support development of planning products and services including process definition, product content and format, and requirements for planning databases and tools.
- c. The Contractor shall develop and validate crew procedures that are consistent with mission objectives, vehicle configuration, and ground systems capabilities.
- d. The Contractor shall develop ground support products (e.g., console procedures, systems briefs, and schematics).
- e. The Contractor shall develop flight rules, launch commit criteria, and other operational constraints.
- f. The Contractor shall provide recommendations for ground and vehicle displays, vehicle software, command and telemetry definitions, and associated reconfiguration processes.
- g. The Contractor shall provide operational inputs (including briefing preparation, execution, and action item response), and technical representation to boards, panels, and working groups (e.g., Operations Readiness Reviews, Joint Operations Panels, Flight Techniques Panels, Payload Operations Working Groups).
- h. The Contractor shall evaluate hazard reports, provide inputs to the development of operational controls, and support their inclusion in operational products.
- i. The Contractor shall document and utilize lessons learned in the development of the mission plan.
- j. The Contractor shall integrate cargo and payload requirements, objectives, and constraints into the executable mission plan.
- k. The Contractor shall provide engineering and operations recommendations to the mission planning process, ensuring all vehicle system issues are properly addressed and integrated into the executable mission plan.

3.3.1.2 INPUTS TO COMMAND AND TELEMETRY DATA RECONFIGURATION PROCESS

The Contractor shall select the command and telemetry data as inputs to the reconfiguration process to meet mission objectives and to monitor and control vehicle

operations. The Contractor shall participate in the determination of the criticality values for commands by using standards and spacecraft information, including hazard reports, SSP-50645 ISS Command and Telemetry Team (ICATT) Standards, any program specific standards, and operational judgment.

3.3.1.3 INTERNATIONAL PARTNER COORDINATION AND SUPPORT

The Contractor shall provide an integration role to the International Partners (IPs). These integration tasks include:

- a. Planning and executing the mission's tasks relative to the IPs.
- b. Producing integrated flight products.
- c. Integrating, developing, and implementing multi-segment procedures.
- d. Providing inputs into mission preparatory activities at the IP's facilities, such as prelaunch testing, operations integration, training, and other activities preparatory to the launch of the IPs hardware or software.
- e. Integrating IP flight controller operations with MOD flight control elements.

The Contractor shall provide flight control team functions at the MCCs of the IPs to accomplish vehicle and flight systems operations to ensure safety and mission success. This includes the task of providing Operations Data File (ODF) coordination to integrate the joint data file requirements for implementation for ISS missions.

3.3.1.4 VISITING VEHICLE COORDINATION AND SUPPORT

The Contractor shall support the development, integration, and operation of visiting vehicles that are associated with the ISS. The Contractor support includes assessments and recommendations for the integration of visiting vehicle mission operations requirements, capabilities, and mission objectives with ISS.

3.3.1.5 CREW ON-ORBIT SUPPORT PRODUCTS

The Contractor shall develop, implement, and operate the Crew On-Orbit Support Systems (COSS) software data products to support on-orbit requirements on ISS. Requirements are provided by NASA MOD and assigned ISS flight crew members. Tasks associated with the COSS data products include:

- a. Maintaining the ISS crew homepage.
- b. Building the Crew Personal Support Disk (CPSD) or equivalent media.
- c. Integrating Computer Based Training (CBTs) and simulators used on ISS.
- d. Providing crew personal and preference items for on-orbit ISS crew.
- e. Maintaining the ISS Library Reference Tool or equivalent media in order to support on-orbit training.

The Contractor shall provide video recording and editing services in support of MOD training and flight crew operations. This support includes:

- a. Recording of training sessions/events.
- b. Editing of recordings.
- c. Producing computer based training video content.

3.3.2 MISSION ANALYSIS

The Contractor shall produce analyses, technical assessments, and anomaly resolution to support mission planning. These tasks include:

- a. Developing and evaluating trajectory profiles.
- b. Performing cargo and payload assessments.
- c. Collaborating with MOD on defining and developing Development Test Objective (DTO) requirements.
- d. Performing mission design related spacecraft resource and electrical power analysis.
- e. Analyzing robotics maneuvers.
- f. Developing console and crew procedures and reference material.
- g. Supporting vehicle software changes with new trajectory targeting and mission design procedures.
- h. Utilizing information from post mission reports, analyses, debriefs, and anomaly log completion and resolution as the basis for change recommendations to vehicle hardware, vehicle software, mission products, and operational capabilities.

3.3.3 MISSION DESIGN

The Contractor shall support the development of mission design products including trajectory, consumable, and robotic profiles and plans that meet mission requirements. The Contractor shall support all associated mission specific analyses and integration activities. This includes:

- a. Identification of required products to support rendezvous in low earth orbit for all flight phases.
- b. Providing analysis and concept of operations for generic and mission specific mission design scenarios.

3.3.4 MISSION READINESS

The Contractor shall support MOD's Certification of Flight Readiness (CoFR) process by:

- a. Reviewing the contractor-managed mission preparations to ensure mission readiness in accordance with MOD ISS CoFR Implementation Plan (JSC-28140). This includes:
 1. Preparing CoFR documentation ensuring that flight preparation responsibilities and requirements are met and all problems dispositioned.
 2. Preparing readiness statements that cover all processes and products required to satisfy the Contractor's responsibilities for mission preparation per the IMOC CoFR Documentation (DRD 3.3.4).
 3. Developing and implementing an auditable approach to ensure that flight preparation responsibilities and requirements are met and all problems dispositioned.
- b. Providing input to and review CoFR documentation for government-managed mission preparations in accordance with the MOD ISS CoFR Implementation Plan (JSC-28140).

Deliverables

The Contractor shall deliver and maintain the following document(s):

- DRD 3.3.4: IMOC CoFR Documentation

3.4 INPUTS TO MISSION SYSTEMS DEVELOPMENT

3.4.1 USER APPLICATIONS REQUIREMENTS DEVELOPMENT AND ACCEPTANCE TESTING

The Contractor shall provide support to MOD's development of requirements and user testing and validation for user applications and tools that are used in PTF operations. The process for the development of requirements is defined in the MOD Software Management Plan (JSC 63756).

NASA determines and manages all user application tool requirements.

3.4.2 MISSION SYSTEMS REQUIREMENTS

The Contractor shall provide support to MOD's development of mission systems requirements for mission control, planning, training, and reconfiguration systems such as MCC, Constellation Training Facility (CxTF), Space Station Training Facility (SSTF), part- and full-task simulators (including international partner simulators), Integrated Planning System (IPS), Mission Operations Reconfiguration System (MORS), Core

Trajectory System (CTS), Space Vehicle Mockup Facility (SVMF), and Neutral Buoyancy Laboratory (NBL). This includes:

- a. Strategic planning.
- b. Operations assessment of requirements.
- c. Participation in design reviews.
- d. Authoring acceptance testing procedures and plans.
- e. The conduct of these tests.

The Contractor shall participate in activities for sustaining mission systems including documenting discrepancies, prioritizing sustaining work, and testing resolution of discrepancies.

4.0 MISSION OPERATIONS TRAINING (TRAIN)

Mission Operations training encompasses the tasks, methods, products, and media utilized to fully prepare the personnel involved in the operational design and execution of manned spaceflight missions. This includes instructional capabilities to prepare the spaceflight crew to perform all required tasks between launch and landing; the flight control team members to perform all required tasks to plan and execute spaceflight operations; analysts to develop mission support data products; and instructors to develop and conduct training. Certified instructors are utilized to conduct all training of flight crews and MOD personnel in positions requiring certification. Mission Operations training covers the nominal operation of spacecraft and ground systems; the identification of and response to operational anomalies and malfunctions; execution of the planned timeline (including cargo, payloads, DTOs, and transfer operations); and "soft skills" required to be an effective member of a team (e.g., decision-making, leadership, communication, teamwork, situation, and mission cognizance, etc.). Training tasks include managing, planning, and scheduling; developing training methods and processes; collaborating with MOD in defining training requirements and training systems requirements; developing curriculum; delivering training, and maintaining records.

4.1 TRAINING MANAGEMENT AND ADMINISTRATION SUPPORT

The Contractor shall provide support to NASA for the planning, integration, scheduling, and tracking of domestic and non-domestic crew training; and MOD flight controller, instructor, and analyst training which includes:

- a. Developing, documenting, and maintaining integrated processes and databases used to manage training (e.g., crew training budget process, student evaluation process and database, and instructor feedback process).
- b. Providing recommendations to support the development, documentation, and maintenance of the MOD training standards and processes utilized in the production of all flight specific and generic training products.

- c. Supporting the development of MOD personnel certification requirements, crew training plans, and other documentation used to manage training.
- d. Providing short and long range planning inputs and constraints to optimize utilization of training systems (e.g., part-task and full-task simulators).
- e. Supporting training integration activities required to develop crew training plans and products to accomplish defined mission objectives. These plans and products shall be integrated and coordinated with NASA's international partners to ensure all partners' training requirements are accomplished.
- f. Providing training team leads to manage training teams and conduct training (e.g., Station Training Lead, Training Directors).
- g. Coordinating with the Flight Crew Office to incorporate their input into all crew training requirements, plans, flows, curricula, and facilities.
- h. Identifying and documenting crew issues revealed during training development and execution and working with the relevant operations forums or working groups for resolution.
- i. Performing non-training simulator operations in support of real-time mission tests, mission following, procedure validation, and other mission support testing.
- j. Inputting training records into MOD's training record system(s) (e.g., Training and Management System (TAMS), Scheduling Training Administration and Records (STAR), Certification Planning and Reporting (CPR)).
- k. Collecting data documenting the quality of delivered training for the IMOC Training Quality Reports (DRD 4.1).
- l. Supporting post-flight crew debriefs and other post-training debriefs to gather feedback on training effectiveness.
- m. Continuously improving training requirements, curricula, products, and execution.
- n. Supporting the MOD CoFR process for training elements per SOW 3.3.4 Mission Readiness.

The Contractor shall provide training to other personnel (e.g., engineering and programs) as directed by MOD.

Deliverables

The Contractor shall deliver and maintain the following document(s):

- DRD 4.1: IMOC Training Quality Reports

4.2 TRAINING SCHEDULES

The Contractor shall schedule daily training activities for mission-assigned crew members (including IP crew members) while at JSC according to the constraints, priorities, and direction of NASA.

The Contractor shall continuously schedule all activities in the MOD training systems for the timeframes allocated for such activities. Training systems include part-task simulators, full-task simulators, mockups, classrooms, and conference rooms. Activities include crew training, non-crew training, instructor practice/certification, user tests/evaluations, and training development. This includes scheduling instructor resources. The Contractor shall assist NASA in establishing the training system operational allocation by coordinating with the facility schedulers in other contracts such as Facility Development Operations Contract (FDOC) and NBL/SVMF Operations Contract (NSOC). Short- and long-term priorities are provided by training leads (e.g., Simulation Training Leads (STLs), Training Directors) and NASA management.

4.3 ASTRONAUT CANDIDATE TRAINING

The Contractor shall develop the Astronaut Candidate (ASCAN) Training Plan and schedule. The Contractor shall coordinate with FCOD and instructor resources to schedule, track, and record training. The Contractor shall provide an astronaut candidate training status report.

4.4 FLIGHT CONTROLLER, INSTRUCTOR, AND ANALYST TRAINING/CERTIFICATION

The Contractor flight controllers, instructors, and analysts shall be certified per the MOD Space Flight Personnel Certification Plan (DA-WI-16). This requirement includes all activities to obtain certification such as personal studies, stand-alone lessons, integrated simulations, joint simulations with International Partners as appropriate, and evaluations. The Contractor shall participate in the flight and mission-specific simulations. This requirement includes planning and execution of joint integrated training simulations utilizing U.S. and IP simulators, MCCs, Flight Control Teams, and Flight Crews. Contractor personnel shall conform to security clearance, drug testing, Minimum Essential Infrastructure (MEI), Personal Reliability Program requirements, and health physicals as required by DA-WI-16.

4.4.1 FLIGHT CONTROLLER, INSTRUCTOR, AND ANALYST TRAINING REQUIREMENTS

The Contractor shall provide support to NASA for the development of generic and mission/increment specific training requirements (skills and objectives based on tasks) and discipline specific certification plans (certification guides) in accordance with MOD Space Flight Personnel Certification Plan (DA-WI-16). Contractor support shall include:

- a. Conducting training needs assessments.
- b. Providing technical input to requirements definition.
- c. Documenting and distributing training requirements and certification plans.
- d. Documenting mission operation tasks that require training.

4.4.2 FLIGHT CONTROLLER, INSTRUCTOR, AND ANALYST CURRICULUM, LESSON, AND SIMULATION DEVELOPMENT

The Contractor shall support the planning and production of generic and mission or increment specific simulation input products by developing simulation timelines, developing simulation scripts, creating data-stores, providing recommendations for instructor displays, and creating other simulation unique products.

The Contractor shall support the production of lessons and training materials (includes schematics, drawings, and training manuals) based on generic and mission or increment specific-requirements and in accordance with the MOD training development standards and processes. Training curriculum and lessons shall meet Flight Controller, Instructor, and Analyst certification requirements per discipline specific certification plans. Training media includes classroom, part task trainer, full-task trainer, and mockups, as well as on-line lessons and computer based training (CBT) modules to facilitate distance learning. As part of training development, the Contractor shall seek learning and cost optimization by supporting trade studies and analyses of available facilities, media, and tools used for training.

4.4.3 FLIGHT CONTROLLER, INSTRUCTOR, AND ANALYST TRAINING EXECUTION

In accordance with training requirements, the Contractor shall conduct Flight Controller, Instructor, and Analyst training which includes:

- a. Teaching lessons.
- b. Operating full task simulator console positions as part of the training team to support performance of simulation training.
- c. Monitoring, evaluating, and providing feedback of student performance.
- d. Monitoring, and providing feedback of training system performance.

4.5 FLIGHT CREW TRAINING

The Contractor shall support all facets of crew training preparation, development, and execution for U.S. and foreign crewmembers, and space flight participants. This includes training toward certification for the Capsule Communicator (Capcom) position, which is staffed by an astronaut, and other personnel selected by FCOD (ref. SOW 6.11 Crew/Vehicle Integration and Testing).

4.5.1 FLIGHT CREW TRAINING REQUIREMENTS

The Contractor shall support development and documentation of generic and mission or increment specific crew training requirements (skills and objectives based on tasks) and plans (lesson flows). Contractor support shall include:

- a. Conducting training needs assessments.

- b. Providing technical input to training requirements definition.
- c. Documenting and distributing training requirements and plans.
- d. Coordinating with MOD and external organizations (e.g., program office, crew office, IPs, and other operations personnel) to document the crew tasks requiring training.
- e. Coordinating IP requirements inputs.
- f. Developing familiarity with IP training facilities, curriculum, and courseware.
- g. Assessing IP training requirements and plans.
- h. Providing technical input to the development of guidelines, operations concepts, and requirements for multi-segment and joint multi-segment simulation training.

4.5.2 FLIGHT CREW CURRICULUM, LESSON, AND SIMULATION DEVELOPMENT

The Contractor shall support the planning and production of generic- and mission- or increment-specific simulation input products by developing simulation timelines, developing simulation scripts, creating data-stores, providing recommendations for instructor displays, and creating other simulation unique products.

The Contractor shall support the production of lessons and training materials (includes schematics, drawings, crew notes, and training manuals) based on generic- and mission- or increment-specific requirements and in accordance with the MOD Training development standards and processes. Training media includes classroom, part-task trainer, full-task trainer, mockups, and onboard training (OBT), as well as on-line lessons and computer based training modules (CBT) to facilitate distance learning. As part of training development, the Contractor shall seek learning & cost optimization by supporting trade studies and analyses of available facilities, media and tools used for training.

4.5.3 FLIGHT CREW TRAINING EXECUTION

In accordance with the generic and mission/increment specific training plans (e.g., crew training catalog), the Contractor shall conduct flight crew training which includes:

- a. Teaching lessons.
- b. Providing instructor support for OBT events.
- c. Providing instructors to support performance of simulation and team training of flight crews.
- d. Monitoring, evaluating, and providing feedback of student performance.
- e. Monitoring and providing feedback of training system performance.

The Contractor shall assist astronauts at IP facilities to support crew training activities.

4.6 ADVANCED TRAINING CONCEPTS

The Contractor shall support the development of advanced training concepts and products for human space flight systems including cooperative work with the IPs, Department of Defense (DOD), industry, and other NASA centers. The Contractor shall participate in trade studies and benchmarking of other organizations to continuously seek improved training methods.

5.0 MISSION EXECUTION (FLY)

MOD conducts and is responsible for all real-time human space flight operations. Space flight operations are executed by a Flight Control Team (FCT) that is led by a NASA Flight Director and consists of flight controllers and support personnel that are functionally organized into various disciplines to optimize effectiveness and efficiency. These disciplines are comprised of both government and contractor personnel, which are required to work together seamlessly to ensure safety and mission success. The flight controller discipline positions, skill mix, and size of the government/contractor participation will be established through concurrence with the Annual Operating Plan and Task Orders. The disciplines primarily support operations from the MCC, but may also be required to support from other sites (e.g., IP's, KSC, etc.).

All flight controller positions require training and certification per MOD Space Flight Personnel Certification Plan (DA-WI-16) and discipline specific certification guides. Flight controller functions include monitoring, failure analysis and response, command and control, integration, coordination, communication, planning, and documenting (e.g., anomaly reports, console logs, postflight reports, etc). FCT support is also comprised of off-console support functions including tiger teams, Mission Management Team (MMT), and Mission Evaluation Room (MER).

Mission execution constitutes all phases of flight, including pre-launch, ascent, orbit, descent, landing, post-landing, and subsequent debriefs. Real-time console support for flight operations may be continuous, or on-call.

5.1 REALTIME FLIGHT CONTROL

The Contractor shall perform FCT discipline functions for mission execution. The Contractor shall be compliant with the FCT's requirements and direction.

5.2 SPACECRAFT ANALYSIS (SPAN)

The Contractor shall perform the realtime operations functions of the Spacecraft Analysis (SPAN) console positions. The Contractor shall accomplish flight objectives, ensure flight safety and mission success, and develop technical console operations documentation. Development and integration of mission operations concepts, plans, and integrated Anomaly and Chit processing philosophies for the MCCs in Houston, Moscow, and other IP centers will be conducted to fit current or planned vehicle operations.

5.3 REALTIME ANALYSIS

The Contractor shall perform realtime analysis during mission execution to reflect planned or unplanned operations. This includes robotics, consumables, and trajectory.

6.0 FCOD SUPPORT

The FCOD is responsible to the NASA Space Flight or Mission Programs for certain in-line tasks. These tasks include:

- a. Providing flight crews to execute the missions planned in the space flight/mission manifests.
- b. Providing flight crew input to the development and assessment of new or changing requirements in the Space Flight Programs, including participating in development, execution, and evaluation of human-piloted tests in simulators.
- c. Providing flight crew input to the resolution of operations related issues in the Programs.

The Government will lead and is responsible for new capability development and certain non-mission-specific Programmatic support.

6.1 ASTRONAUT SCHEDULING

The Contractor shall provide JSC's unassigned flight crew scheduling function.

6.2 PROGRAM/PROJECT REQUIREMENTS DEVELOPMENT/CHANGE TECHNICAL ASSESSMENTS

The Contractor shall provide reports, assessments, and technical evaluations of Program development requirements and requirement changes that have potential impact to crew procedures, safety, or operations.

The Contractor shall manage the change request (CR), or equivalent, review process for the flight crew, including routing of CRs for flight crew evaluations and maintaining an existing database of all such reviewed CRs for boards (or their successors).

The Contractor shall be aware of flight crew official positions on systems level hardware, software, and operational procedure changes affecting the crew.

The Contractor shall evaluate all flight software discrepancy reports, or equivalent, and user/operational notes, or equivalent, for crew operational and safety impacts. During the conceptual design of each new software release/update, the Contractor shall evaluate the crew operational and safety impacts of concept proposals for software changes. The Contractor shall determine the flight software code and other resource impacts of flight crew proposed changes to allow the flight crew to develop its priorities for changes prior to the baselining of each new software release/update.

The Contractor shall provide technical evaluations of the crew operational and safety impacts of specific, identified changes to the space flight vehicle or module/element hardware, software, and operations.

For primary payloads, the Contractor shall support the development of the payload requirements for on-board crew displays.

The Contractor shall initiate and present changes for a wide range of hardware, software, and operations that affect the crew.

The Contractor shall develop and present briefings to assigned flight crew.

6.3 LONG-DURATION CREW SUPPORT

The Contractor shall support the development and management of workshops and seminars that address issues associated with long-duration space flight required for mission operations. The Contractor shall assist in the development, implementation, and management of various field exercises designed to prepare astronauts to be suitable candidates for short- or long-duration space flight. The Contractor shall develop training plans, evaluations, and other documentation to support this effort.

6.4 FLIGHT CREW EQUIPMENT (FCE) INTEGRATION

The Contractor shall manage the requirements of the flight crew for FCE and establish and maintain coordination between the flight crew and hardware suppliers for FCE.

The Contractor shall initiate flight crew requested changes and present FCE CRs, or equivalent, representing the assigned flight crew FCE requirements to the boards, and shall provide status to the crew members on CRs affecting their equipment.

The Contractor shall participate in the development of requirements for provisioning, stowage, and manifesting of hardware and crew items and equipment. The Contractor shall be responsible for tracking Astronaut Office accountable crew preference equipment.

6.5 OPERATIONS DEVELOPMENT FOR SPACE FLIGHT/MISSION

The Contractor shall provide support to FCOD for the accomplishment of the operations development of space flight/mission in-line tasks.

6.6 FLIGHT CREW TRAINING DEVELOPMENT

The Contractor shall coordinate flight crew input into all crew training plans, flows, curricula, and facilities; identify and document crew issues and crew positions; disseminate flight crew positions to the relevant Integrated Product Team, or equivalent; and propose areas requiring developmental test objectives (DTO) or risk mitigation

experiments (RME), or equivalents. The Contractor shall provide reports and assessments of operational impacts of training issues.

6.7 SPACE MODULE/ELEMENT ASSEMBLY, SYSTEM AND UTILIZATION OPERATIONS ASSESSMENT AND TESTING

The Contractor shall provide the flight crew with assessments, technical evaluations, and reports related to space elements or modules (such as habitation modules, laboratory modules, etc) for:

- a. Assembly operations and concepts, plans, tasks, and procedures.
- b. Integrated operations scenarios.
- c. Flight rules.
- d. System, module, and payload designs including functional descriptions, drawings, and schematics.
- e. Change notices that affect crew-related requirements or implementation.
- f. FCE support systems including habitability support.
- g. Crew displays and controls.

The Contractor shall develop and review test plans for the module/element systems, payloads, tools, and procedures that require ground-based testing. The Contractor shall coordinate crew participation in such tests and document the results.

The Contractor shall prepare DTO or RME, or equivalent, flight documentation and post-flight test results for module/element systems, payloads, tools, and procedures that require a flight demonstration.

6.8 DISPLAY DEVELOPMENT

The Contractor shall provide support to FCOD in coordinating and consolidating all flight crew requirements and delivering the results to the Common Display Development Team (CDDT), or equivalent. The Contractor shall ensure the resultant requirements are in accordance with CDDT specifications.

6.9 SPACE FLIGHT/MISSION PROGRAMS INTEGRATION

The Contractor shall provide the flight crew with on-orbit capability assessments for any element/module assembly and operations tasks involving a visiting vehicle. These assessments shall include evaluations. The Contractor shall develop and review test plans for any mission operations involving integration of Space Flight/Mission Programs that have been identified as requiring ground-based tests (including EVA, robotics, rendezvous/proximity operations). The Contractor shall coordinate crew participation in such tests and document the results.

The Contractor shall prepare DTO/RME, or equivalent, flight documentation, and flight test results reports for flown DTO/RMEs.

The Contractor shall provide program level board support by:

- a. Providing technical inputs to the FCOD representatives to the programmatic boards, associated sub-boards, and panels.
- b. Presenting the FCOD position.
- c. Developing and delivering presentations.
- d. Identifying impacts due to proposed requirements changes.
- e. Exchanging technical vehicle and operations information.
- f. Interfacing with Constellation and ISS organizations to resolve flight preparation process implementation issues.
- g. Participating in trade studies, assessment activities, and action item resolution as necessary, to support mission preparation.

6.10 LIBRARY, DATABASE, AND DOCUMENTATION MAINTENANCE

The Contractor shall provide support for the flight crew databases and library.

6.11 CREW/VEHICLE INTEGRATION AND TESTING

The Contractor shall provide the operations interface between JSC flight operations in-line tasks and processing or launch operations at KSC and any partner or NASA-designated sites. The Contractor shall implement the Vehicle Integration Plan for Space Operations (JSC 17519A).

The Contractor shall provide on-site support at facilities of any partners in support of prelaunch testing, integration, and other activities preparatory to the launch of space flight elements/modules/visiting vehicles.

6.12 CAPSULE COMMUNICATOR (CAPCOM) SUPPORT

The Contractor shall provide Capcom support and is eligible for any Capcom related assignments including console support during mission operations and simulations; acting as a crew advocate in the MCC; performing and managing voice communications with the crew on orbit; coordinating use of the air- or space-to-ground communication loop(s) by other users (e.g., MCC-Moscow Glavni Operator or members of other control centers); and filtering flight control team call requests to the crew by saving them for planned discussion periods.

(End of clause)

(END OF SECTION)

SECTION D

PACKAGING AND MARKING

D.1 1852.211-70 **PACKAGING, HANDLING, AND TRANSPORTATION** (SEP 2005)

- (a) The Contractor shall comply with NASA Procedural Requirements (NPR) 6000.1, "Requirements for Packaging, Handling, and Transportation for Aeronautical and Space Systems, Equipment, and Associated Components", as may be supplemented by the statement of work or specifications of this contract, for all items designated as Class I, II, or III.
- (b) The Contractor's packaging, handling, and transportation procedures may be used, in whole or in part, subject to the written approval of the Contracting Officer, provided (1) the Contractor's procedures are not in conflict with any requirements of this contract, and (2) the requirements of this contract shall take precedence in the event of any conflict with the Contractor's procedures.
- (c) The Contractor must place the requirements of this clause in all subcontracts for items that will become components of deliverable Class I, II, or III items.

(End of clause)

(END OF SECTION)

SECTION E

INSPECTION AND ACCEPTANCE

E.1 LISTING OF CLAUSES INCORPORATED BY REFERENCE

I. The following FAR clause(s) are incorporated by reference:

52.246-5 Inspection of Services -- Cost-Reimbursement (APR 1984)

II. The following NFS clause(s) are incorporated by reference:

1852.246-72 Material Inspection and Receiving Report (AUG 2003)

**E.2 52.246-11 HIGHER-LEVEL CONTRACT QUALITY REQUIREMENT
(GOVERNMENT SPECIFICATION) (FEB 1999)**

The contractor shall comply with the higher-level quality standard selected below.

- ANSI/ISO/ASQ Q9001-2000 Quality Management Systems,

(End of clause)

E.3 SHIPPING INSTRUCTIONS

Shipping instructions for NASA centers, if applicable.

All documentation and other items shall be shipped to the addresses as follow:

Parcel Post Shipments and Freight Shipments

Ship to: NASA Johnson Space Center,
Building 421
2101 NASA Parkway
Houston, TX 77058-3696

Mark for: Accountable Property Officer
Mark with: Contract Number: NNJ09HA15C

For reissue to: _____
(Name) (Mail Code) (Bldg) (Rm)

(End of clause)
[END OF SECTION]

SECTION F

DELIVERIES OR PERFORMANCE

F.1 LISTING OF CLAUSES INCORPORATED BY REFERENCE

I. The following FAR clause(s) are incorporated by reference:

52.242-15 Stop-Work Order (AUG 1989) – Alternate I (APR 1984)
52.247-34 F.o.b. Destination (NOV 1991)

II. There are no NFS clause(s) are incorporated by reference:

F.2 COMPLETION OF WORK

All work required under this contract, including submission of all reports, shall be completed on or before September 30, 2011.

(End of clause)

F.3 OPTION TO EXTEND THE TERM OF THE CONTRACT

(a) The Government may extend the term of this contract by written notice to the contractor within 60 days prior to the date set forth in clause "F.2, Completion of Work," provided that the Government gives the contractor a preliminary written notice of its intent to extend at least 90 days before the contract expires. The preliminary notice does not commit the Government to an extension.

(b) If the Government exercises this option, the extended contract shall be considered to include this option clause.

(c) Should an option be exercised, the resultant contract will include all terms and conditions of the basic contract as it exists immediately prior to the exercise of the option except for the following changes:

OPTION 1:

(End of clause)

F.4 INDEFINITE DELIVERY INDEFINITE QUANTITY (IDIQ) - LIMITATIONS

Payment for supplies and services to be furnished under IDIQ task orders shall be made based on the total value of IDIQ task orders issued under this contract. Payments shall be in accordance with the provisions set forth in NFS 1852.216-87, "SUBMISSION OF VOUCHERS FOR PAYMENT."

(a) For the purpose of placing a maximum Not-To-Exceed (NTE) amount on this contract, the maximum amount of IDIQ supplies and services ordered in total under this contract shall not exceed the maximum NTE amount of \$120,000,000. This NTE amount includes both cost and fee. The maximum NTE amount is an estimate and does not reflect an obligation of the Government. The Government's obligation hereunder shall be based on that specified in the task/delivery orders issued during the period of the contract.

(b) The minimum amount of IDIQ supplies and services ordered in total and paid for under this contract shall be \$10 Million. This amount includes both cost and fee. This IDIQ minimum is for technical task requirements, including management, not already in the contract baseline.

(c) The total cost plus award fee contract value for IDIQ task orders issued under this contract is listed in Section B.3 clause entitled, "ESTIMATED COST AND AWARD FEE."

(End of clause)

F.5 PLACE OF PERFORMANCE

The principal place of contractor's performance of the various work elements of the program is NASA's Johnson Space Center. Work will be performed at other places covered by the Statement of Work.

(End of clause)

F.6 JSC 52.247-95 FLIGHT ITEM (SEP 1989)

Block 16 of each Department of Defense Form 250 prepared for flight hardware or related equipment to be shipped under this contract must be annotated as follows in 1/4-inch letters or larger by hand printing or rubber stamp:

“THIS IS A FLIGHT ITEM,” OR “THIS IS MISSION ESSENTIAL GROUND SUPPORT EQUIPMENT,” as applicable.

(End of clause)

F.7 **LEVEL-OF-EFFORT (COST)**

(a) During the term of the contract, the Contractor is obligated to provide not less than **90** percent nor more than **110** percent of **531,000** total direct labor hours. Any hours not expended during the base term of the contract will be made available in contract year 4 should the option is exercised.

(b) "Direct labor hours" are those productive hours expended by Contractor personnel performing work under this contract that are charged as direct labor under the Contractor's established accounting policy and procedures. The term does not include sick leave, vacation leave, holiday leave, military or any type of administrative leave but does include direct labor hours provided under level-of-effort subcontracts.

(c) Once the maximum number of direct labor hours is reached or the contract term has ended, the Contractor's obligations under the contract are fulfilled, even though the specified work may not have been completed. The Contractor is not authorized to exceed the maximum of the direct labor hours specified in paragraph (a) of this clause. Any estimated cost and fee(s) adjustments for any additional direct labor hours shall be based solely upon the quantity of additional hours being added to the maximum number of direct labor hours specified in this clause through a modification to the contract.

(d) The fee, if any, is based upon the furnishing of at least the specified minimum number of direct labor hours, including subcontract hours. If the Contractor provides less than that specified minimum number of hours prior to expiration of the contract term, and the Government has not invoked its rights under the Termination clause of this contract to adjust the contract for such reduced effort, the Contracting Officer may unilaterally make an equitable downward adjustment to the contract fee. The downward adjustment in fee will be based upon the difference between the minimum direct labor hours specified under this clause and the amount of direct labor hours provided by the Contractor. Prior to making such an adjustment, the Contracting Officer will request the Contractor provide a written discussion of any extenuating circumstances (e.g., productivity improvements or reductions in contract scope) which contributed to the underrun. Any information provided by the Contractor will be considered by the Contracting Officer in determining the amount of the downward adjustment in fee.

(End of clause)

[END OF SECTION]

SECTION G

CONTRACT ADMINISTRATION DATA

G.1 LISTING OF CLAUSES INCORPORATED BY REFERENCE

I. The following NFS clause(s) are incorporated by reference:

- 1852.223-71 Frequency Authorization (DEC 1988)
- 1852.227-70 New Technology (MAY 2002)
- 1852.227-86 Commercial Computer Software-Licensing (DEC 1987)
- 1852.242-71 Travel Outside of the United States (DEC 1988) (b) (7 days)
- 1852.242-73 NASA Contractor Financial Management Reporting (NOV 2004)

G.2 1852.216-76 AWARD FEE FOR SERVICE CONTRACTS (JUN 2000)

- (a) The contractor can earn award fee from a minimum of zero dollars to the maximum stated in B.3, "Estimated Cost and Award Fee" in this contract.
- (b) Beginning 6 months after the effective date of this contract, the Government shall evaluate the Contractor's performance every 6 months to determine the amount of award fee earned by the contractor during the period. The Contractor may submit a self-evaluation of performance for each evaluation period under consideration. These self-evaluations will be considered by the Government in its evaluation. The Government's Fee Determination Official (FDO) will determine the award fee amounts based on the Contractor's performance in accordance with the Award Fee Plan (Attachment J-8). 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 payment office will make payment based on issuance of a unilateral modification by the contracting officer.
- (d) After 80 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 20 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 the table in Attachment J-8. Award fee which is not earned in an evaluation period cannot be reallocated to future evaluation periods.

- (f) (1) Provisional award fee payments will, as applicable, 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 or the prior period's evaluation score.
- (2) Provisional award fee payments will be superseded by the final award fee evaluation for that period. If provisional payments exceed the final evaluation score, the Contractor will either credit the next payment voucher for the amount of such overpayment or refund the difference to the Government, as directed by the Contracting Officer.
- (3) If the Contracting Officer determines that the Contractor will not achieve a level of performance commensurate with the provisional rate, payment of provisional award fee will be discontinued or reduced in such amounts as the Contracting Officer deems appropriate. The Contracting Officer will notify the Contractor in writing if it is determined that such discontinuance or reduction is appropriate.
- (4) Provisional award fee payments will be made prior to the first award fee determination by the Government.
- (g) Award fee determinations are unilateral decisions made solely at the discretion of the Government.

(End of clause)

G.3 1852.216-87 **SUBMISSION OF VOUCHERS FOR PAYMENT** (MAR 1998)

- (a) The designated billing office for cost vouchers for purposes of the Prompt Payment clause of this contract is indicated below.

NASA Shared Services Center (NSSC)
Financial Management Division (FMD) – Accounts Payable
Bldg 1111, C. Road
Stennis Space Center, MS 39529-6000
Phone: 1-877-677-2123
Fax: 1-866-209-5415
E-mail: NSSC-AccountsPayable@nasa.gov

Public vouchers for payment of costs shall include a reference to the number of this contract.

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

NASA Shared Services Center (NSSC)
Financial Management Division (FMD) – Accounts Payable
Bldg 1111, C. Road
Stennis Space Center, MS 39529-6000
Phone: 1-877-677-2123
Fax: 1-866-209-5415
E-mail: NSSC-AccountsPayable@nasa.gov

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

- (1) One original Standard Form (SF) 1034, SF 1035, or equivalent Contractor's attachment to:

NASA, Lyndon B. Johnson Space Center
BH/Projects Procurement Office
Houston, TX 77058-3696

- (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; and
 - (v) Copy 5 Project management office.
- (3) The Contracting Officer may designate other recipients as required.

- (d) Public vouchers for payment of fee shall be prepared similarly to the procedures in paragraphs (b) or (c) of this clause, whichever is applicable, and be forwarded to:

NASA, Lyndon B. Johnson Space Center
BH/Projects Procurement Office
Houston, TX 77058-3696

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

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

(End of clause)

**G.4 1852.227-72 DESIGNATION OF NEW TECHNOLOGY
REPRESENTATIVE AND PATENT REPRESENTATIVE (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 Code	Address (including zip code)
New Technology Representative	AT	AT/Technology Transfer & Commercialization Office NASA Lyndon B. Johnson Space Center Houston, TX 77058-3696
Patent Representative	AL	Patent Representative NASA Lyndon B. Johnson Space Center Houston, TX 77058-3696

(b) Reports of reportable items, and disclosure of subject inventions, interim reports, final reports, utilization reports, and other reports required by the clause, as well as any correspondence with respect to such matters, should be directed to the New Technology Representative unless transmitted in response to correspondence or request from the Patent Representative. Inquires or requests regarding disposition of rights, election of rights, or related matters should be directed to the Patent Representative. This clause shall be included in any subcontract hereunder requiring a "New Technology" clause or

"Patent Rights--Retention by the Contractor (Short Form)" clause, unless otherwise authorized or directed by the Contracting Officer. The respective responsibilities and authorities of the above-named representatives are set forth in 1827.305-370 of the NASA FAR Supplement.

(End of clause)

G.5 1852.242-70 **TECHNICAL DIRECTION** (SEP 1993)

- (a) Performance of the work under this contract is subject to the written technical direction of a Contracting Officer's Technical Representative (COTR), who shall be specifically appointed by the Contracting Officer in writing in accordance with NFS 1842.270. "Technical direction" means a directive to the Contractor that approves approaches, solutions, designs, or refinements; fills in details or otherwise completes the general description of work or documentation items; shifts emphasis among work areas or tasks; or furnishes similar instruction to the Contractor. Technical direction includes requiring studies and pursuit of certain lines of inquiry regarding matters within the general tasks and requirements in Section C of this contract.
- (b) The COTR does not have the authority to, and shall not, issue any instruction purporting to be technical direction that –
 - (1) Constitutes an assignment of additional work outside the statement of work;
 - (2) Constitutes a change as defined in the Changes clause;
 - (3) Constitutes a basis for any increase or decrease in the total estimated contract cost, the fixed fee (if any), or the time required for contract performance;
 - (4) Changes any of the expressed terms, conditions, or specifications of the contract; or
 - (5) Interferes with the Contractor's rights to perform the terms and conditions of the contract.
- (c) All technical direction shall be issued in writing by the COTR.
- (d) The Contractor shall proceed promptly with the performance of technical direction duly issued by the COTR in the manner prescribed by this clause and within the COTR's authority. If, in the Contractor's opinion, any instruction or direction by the COTR falls within any of the categories defined in paragraph (b) above, the Contractor shall not proceed but shall notify the Contracting Officer in writing within 5 working days after

receiving it and shall request the Contracting Officer to take action as described in this clause. Upon receiving this notification, the Contracting Officer shall either issue an appropriate contract modification within a reasonable time or advise the Contractor in writing within 30 days that the instruction or direction is –

- (1) Rescinded in its entirety; or
 - (2) Within the requirements of the contract and does not constitute a change under the Changes clause of the contract, and that the Contractor should proceed promptly with its performance.
- (e) A failure of the Contractor and Contracting Officer to agree that the instruction or direction is both within the requirements of the contract and does not constitute a change under the Changes clause, or a failure to agree upon the contract action to be taken with respect to the instruction or direction, shall be subject to the Disputes clause of this contract.
- (f) Any action(s) taken by the Contractor in response to any direction given by any person other than the Contracting Officer or the COTR shall be at the Contractor's risk.

(End of clause)

G.6 1852.245-70 **CONTRACTOR REQUESTS FOR GOVERNMENT-
PROVIDED EQUIPMENT (DEVIATION) (SEP 2007)**

(a) The Contractor shall provide all property required for the performance of this contract. The Contractor shall not acquire or construct items of property to which the Government will have title under the provisions of this contract without the Contracting Officer's written authorization. Property which will be acquired as a deliverable end item as material or as a component for incorporation into a deliverable end item is exempt from this requirement.

(b)(1) In the event the Contractor is unable to provide the property necessary for performance, and the Contractor requests provision of property by the Government, the Contractor's request shall--

- (i) Justify the need for the property;
- (ii) Provide the reasons why contractor-owned property cannot be used;
- (iii) Describe the property in sufficient detail to enable the Government to screen its inventories for available property or to otherwise acquire property, including applicable manufacturer, model, part, catalog, National Stock Number or other pertinent identifiers;
- (iv) Combine requests for quantities of items with identical descriptions and estimated values when the estimated values do not exceed \$100,000 per unit; and
- (v) Include only a single unit when the acquisition or construction value equals or exceeds \$100,000.

(2) Contracting Officer authorization is required for items the Contractor intends to manufacture as well as those it intends to purchase.

(3) The Contractor shall submit requests to the Contracting Officer no less than 30 days in advance of the date the Contractor would, should it receive authorization, acquire or begin fabrication of the item.

(c) The Contractor shall maintain copies of Contracting Officer authorizations, appropriately cross-referenced to the individual property record, within its property management system.

(d) Property furnished from Government excess sources is provided as-is, where-is. The Government makes no warranty regarding its applicability for performance of the contract or its ability to operate. Failure of property obtained from Government excess sources under this clause is insufficient reason for submission of requests for equitable adjustments discussed in the clause at 52.245-1, Government Property.

(End of clause)

G.7 1852.245-71 **INSTALLATION-ACCOUNTABLE GOVERNMENT PROPERTY (DEVIATION)** (SEP 2007), **ALT I (DEVIATION)** (SEP 2007)

- (a) The Government property described in paragraph (c) of this clause may be made available to the Contractor on a no-charge basis for use in performance of this contract. This property shall be utilized only within the physical confines of the NASA installation that provided the property unless authorized by the contracting officer under (b)(1)(iv). For the purpose of this contract, Contractor facilities within 5 miles of JSC are considered to be within NASA installations
- (b) Under this clause, the Government retains accountability for, and title to, the property, and the Contractor shall comply with the following:
- a. The contractor shall manage controlled property and maintain records of property in a NASA subinstallation domain in accordance with:
 - i. NASA Procedural Requirements (NPR) 4100, NASA Materials Inventory Management Manual
 - ii. NASA Procedural Requirements (NPR) 4200, NASA Equipment Management Procedural Requirements
 - iii. NASA Procedural Requirement (NPR) 4300, NASA Personal Property Disposal Procedural Requirements
 - iv. NASA Procedural Requirement 4300.4D Use of Space Shuttle and Aerospace Vehicle Materials as Mementos
 - v. NASA Procedural Requirement 4310.1 Identification and Disposition of NASA Artifacts
 - vi. PIC 05-07
 - b. NASA Owned property provided under this contract that meets controlled property or exceeds the Agency capitalization threshold shall be maintained in the NASA subinstallation, including capital items located at subcontractor locations.
 - c. The contractor shall maintain records of supplies and materials that do not qualify for control under the requirements of this clause and the

- aforementioned policies and manuals in accordance with the requirements of the FAR property clause incorporated elsewhere in this contract.
- d. The official accountable recordkeeping, physical inventory, financial control, and reporting of the controlled property subject to this clause shall be retained by the Government. The contractor shall perform management of all recordkeeping functions as a subinstallation.
 - e. The contractor is responsible for, accountable for and shall record all contractor-acquired property in accordance with the FAR property clauses until the property is entered into contractor NASA subinstalation. The contractor shall record all property that qualifies for control under the requirements of NPR 4200.1E, or succeeding documents within the same calendar month as receipt and invoicing.
 - f. After entry into NASA Subinstallation, the contractor shall continue to maintain such internal records as are necessary to execute the custodian/user responsibilities and document the acquisition and disposition of the property. These records and supporting documentation shall be made available, upon request, to the SEMO and any other authorized representatives of the contracting officer.

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

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

(b)(1) The official accountable recordkeeping, financial control, and reporting of the property subject to this clause shall be retained by the Government and accomplished within NASA management information systems prescribed by the installation Supply and Equipment Management Officer (SEMO) and Financial Management Officer. If this contract provides for the Contractor to acquire property, title to which will vest in the Government, the following additional procedures apply:

(i) The Contractor shall not utilize the installation's central receiving facility for receipt of contractor-acquired property. However, the Contractor shall provide listings suitable for establishing accountable records of all such property received, on a monthly basis, to the SEMO

(ii) The Contractor shall furnish a copy of each purchase order, prior to delivery by the vendor, to the installation central receiving area.

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

(iv) Contractor use of Government property at an off-site location and off-site subcontractor use require advance approval of the Contracting Officer and notification of the Industrial Property Officer. The property shall be considered Government furnished and the Contractor shall assume accountability and financial reporting responsibility. The Contractor shall establish records and property control procedures and maintain the property in accordance with the requirements of FAR 52.245-1, Government Property, until its return to the installation. NASA Procedural Requirements related to property loans shall not apply to offsite use of property by contractors.

(2) After transfer of accountability to the Government, the Contractor shall continue to maintain such internal records as are necessary to execute the user responsibilities identified in paragraph (a) of this clause and document the acquisition, billing, and disposition of the property. These records and supporting documentation shall be made available, upon request, to the SEMO and any other authorized representatives of the Contracting Officer.

(c) The following property and services are provided if checked.

(1) Office space, work area space, and utilities. Government telephones are available for official purposes only.

(2) Office furniture.

(3) Property listed in Attachment J-4, table 1.

(ii) If the Contractor acquires property, title to which vests in the Government pursuant to other provisions of this contract, this property also shall become accountable to the Government upon its entry into Government records.

(iii) The Contractor shall not bring to the installation for use under this contract any property owned or leased by the Contractor, or other property that the Contractor is accountable for under any other Government contract, without the Contracting Officer's prior written approval.

(4) Supplies from stores stock.

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

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

(7) Installation service facilities: _____ [Insert the name of the facilities or "None"].

(8) Medical treatment of a first-aid nature for Contractor personnel injuries or illnesses sustained during on-site duty.

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

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

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

(End of clause)

G.8 1852.245-73 FINANCIAL REPORTING OF NASA PROPERTY IN THE CUSTODY OF CONTRACTORS (SEP 2007)

(a) The Contractor shall submit annually a NASA Form (NF) 1018, NASA Property in the Custody of Contractors, in accordance with the provisions of 1845.505-14, the instructions on the form, subpart 1845.71, and any supplemental instructions for the current reporting period issued by NASA.

(b)(1) Subcontractor use of NF 1018 is not required by this clause; however, the Contractor shall include data on property in the possession of subcontractors in the annual NF 1018.

(2) The Contractor shall mail the original signed NF 1018 directly to the cognizant NASA Center Deputy Chief Financial Officer, Finance, unless the Contractor uses the NF 1018 Electronic Submission System (NESS) for report preparation and submission.

(3) One copy shall be submitted (through the Department of Defense (DOD) Property Administrator if contract administration has been delegated to DOD) to the following address: Michael Caputo, 2101 NASA Parkway,, Houston, TX 77058-3696, Phone: (281) 483-7909, unless the Contractor uses the NF 1018 Electronic Submission System (NESS) for report preparation and submission.

(c)(1) The annual reporting period shall be from October 1 of each year through September 30 of the following year. The report shall be submitted in time to be received by October 15. The information contained in these reports is entered into the NASA accounting system to reflect current asset values for agency financial statement purposes. Therefore, it is essential that required reports be received no later than October 15. Some activity may be estimated for the month of September, if necessary, to ensure the NF 1018 is received when due. However, contractors procedures must document the process for developing these estimates based on planned activity such as planned purchases or NASA Form 533 (NF 533 Contractor Financial Management Report) cost estimates. It should be supported and documented by historical experience or other corroborating evidence, and be retained in accordance with FAR Subpart 4.7, Contractor Records Retention. Contractors shall validate the reasonableness of the estimates and associated methodology by comparing them to the actual activity once that data is available, and adjust them accordingly. In addition, differences between the estimated cost and actual cost must be adjusted during the next reporting period. Contractors shall have formal policies and procedures, which address the validation of NF 1018 data, including data from subcontractors, and the identification and timely reporting of errors. The objective of this validation is to ensure that information reported is accurate and in compliance with the NASA FAR Supplement. If errors are discovered on NF 1018 after submission, the contractor shall contact the cognizant NASA Center Industrial Property Officer (IPO) within 30 days after discovery of the error to discuss corrective action.

(2) The Contracting Officer may, in NASA's interest, withhold payment until a reserve not exceeding \$25,000 or 5 percent of the amount of the contract, whichever is less, has been set aside, if the Contractor fails to submit annual NF 1018 reports in accordance with 1845.505-14 and any supplemental instructions for the current reporting period issued by NASA. Such reserve shall be withheld until the Contracting Officer has determined that NASA has received the required

reports. The withholding of any amount or the subsequent payment thereof shall not be construed as a waiver of any Government right.

- (c) A final report shall be submitted within 30 days after disposition of all property subject to reporting when the contract performance period is complete in accordance with (b)(1) through (3) of this clause.

(End of clause)

G.9 1852.245-74 **IDENTIFICATION AND MARKING OF GOVERNMENT EQUIPMENT (DEVIATION) (SEP 2007)**

(a) The Contractor shall identify all equipment to be delivered to the Government using NASA Technical Handbook (NASA-HDBK) 6003, Application of Data Matrix Identification Symbols to Aerospace Parts Using Direct Part Marking Methods/Techniques, and NASA Standard (NASA-STD) 6002, Applying Data Matrix Identification Symbols on Aerospace Parts Handbook. This includes deliverable equipment listed in the schedule and other equipment when NASA directs physical transfer to NASA or a third party. The Contractor shall identify property in both machine and human readable form unless the use of a machine readable-only format is approved by the NASA Industrial Property Officer.

(b) Property shall be marked in a location that will be human readable, without disassembly or movement of the property, when the items are placed in service unless such placement would have a deleterious effect on safety or on the item's operation.

(c) Concurrent with equipment delivery or transfer, the Contractor shall provide the following data in an electronic spreadsheet format:

- (1) Item Description.
- (2) Unique Identification Number (License Tag).
- (3) Unit Price.
- (4) An explanation of the data used to make the unique identification number.

(d) For items physically transferred under paragraph (a) the following additional data is required:

- (1) Date originally placed in service.
- (2) Item condition.
- (3) Date last serviced.

(e) The data required in paragraphs (c) and (d) shall be delivered to the NASA center receiving activity listed below:

TRANSPORTATION OFFICER JB7
NASA LYNDON B. JOHNSON SPACE CENTER
BLDG. 421 CENTRAL RECEIVING
2101 NASA PARKWAY
HOUSTON, TX 77058-3696

(f) The contractor shall include the substance of this clause, including this paragraph (f), in all subcontracts that require delivery of equipment.

(End of clause)

G.10 1852.245-75 **PROPERTY MANAGEMENT CHANGES
(DEVIATION) (SEP 2007)**

(a) The Contractor shall submit any changes to standards and practices used for management and control of Government property under this contract to the assigned property administrator and Industrial Property Officer (IPO), prior to making the change whenever the change --

- (1) Employs a standard that allows increase in thresholds or changes the timing for reporting loss, damage, or destruction of property;
- (2) Alters physical inventory timing or procedures;
- (3) Alters recordkeeping practices;
- (4) Alters practices for recording the transport or delivery of Government property;

or

- (5) Alters practices for disposition of Government property.

(b) The Contractor shall contact the IPO at:

Michael Caputo
2101 NASA Parkway
Houston, TX 77058-3696
Phone: (281) 483-7909
michael.caputo-1@nasa.gov

(End of clause)

G.11 1852.245-76 **LIST OF GOVERNMENT PROPERTY FURNISHED
PURSUANT TO FAR 52.245-1 (DEVIATION) (SEP 2007)**

(a) For performance of work under this contract, the Government will make available Government property identified below as follows: (See Attachment J-4, table 2) this contract on a no-charge-for-use basis pursuant to the clause at FAR 52.245-1, Government Property. The Contractor shall use this property in the performance of this contract at Johnson Space Center and at other location(s) as may be approved by the Contracting Officer. Under FAR 52.245-1, the Contractor is accountable for the identified property.

(End of clause)

G.12 1852.245-78 **PHYSICAL INVENTORY OF CAPITAL PERSONAL
PROPERTY (DEVIATION) (SEP 2007)**

(a) In addition to physical inventory requirements under the clause at FAR 52.245-1, Government Property, the Contractor shall conduct annual physical inventories for individual property items with an acquisition cost exceeding \$100,000.

- (1) The Contractor shall inventory --
 - (i) Items of property furnished by the Government;

(ii) Items acquired by the Contractor and titled to the Government under the clause at FAR 52.245-1;

(iii) Items constructed by the Contractor and not included in the deliverable, but titled to the Government under the clause at FAR 52.245-1; and

(iv) Complete but undelivered deliverables.

(2) The Contractor shall use the physical inventory results to validate the property record data, specifically location, condition and use status, and to prepare summary reports of inventory as described in paragraph (c) of this clause.

(b) Unless specifically authorized in writing by the NASA Industrial Property Officer (IPO), the inventory shall be performed and posted by individuals other than those assigned custody of the items, responsibility for maintenance, or responsibility for posting to the property record. The Contractor may request a waiver from this separation of duties requirement from the NASA IPO, when all of the conditions in either (1) or (2) below are met.

(1) The Contractor utilizes an electronic system for property identification, such as a laser bar-code reader or radio frequency identification reader, and

(i) The programs or software preclude manual data entry of inventory identification data by the individual performing the inventory; and

(ii) The inventory and property management systems contain sufficient management controls to prevent tampering and assure proper posting of collected inventory data.

(2) The Contractor has limited quantities of property, limited personnel, or limited property systems; and,

(i) The Contractor provides written confirmation that the Government property exists in the recorded condition and location; and

(ii) The items continue to be used exclusively for performance of the contract or as otherwise authorized by the Contracting Officer.

(3) The Contractor shall submit the request to the cognizant property administrator and obtain approval from the IPO prior to implementation of the practice.

(c) The Contractor shall report the results of the physical inventory to the property administrator and the NASA Industrial Property Officer within 10 calendar days of completion of the physical inventory. The report shall --

(1) Provide a summary showing number and value of items inventoried; and

(2) Include additional supporting reports of --

(i) Loss, damage or destruction, in accordance with the clause at 52.245-1, Government Property;

(ii) Idle property available for reuse or disposition; and

(iii) A summary of adjustments made to location, condition, status, or user as a result of the physical inventory reconciliation.

(d) The Contractor shall retain all physical inventory records, including records of all transactions associated with inventory reconciliation. All records shall be subject to Government review and/or audit.

(End of clause)

G.13 1852.245-79 **RECORDS AND DISPOSITION REPORTS FOR GOVERNMENT PROPERTY WITH POTENTIAL HISTORIC OR SIGNIFICANT REAL VALUE (DEVIATION)** (SEP 2007)

(a) Items of Government property flown in space or used to support other pioneering NASA programs have increased probability of historic significance and an intrinsic value that is likely to exceed their unused material or physical value. Descriptions of physical characteristics alone are often insufficient to determine an item's historic significance or real value. In addition to the property record data required by the clause at FAR 52.245-1, Government Property in this contract, Contractor records of all Government property under this contract shall --

- (1) Identify the projects or missions that used the items;
- (2) Specifically identify items of flown property;
- (3) When known, associate individual items of property used in space flight operations with the using astronaut(s); and
- (4) Identify property used in test activity and, when known, the individuals who conducted the test.

(b) The Contractor shall include this information within item descriptions --

- (1) On any Standard Form 1428, Inventory Schedule;
- (2) In automated disposition systems;
- (3) In any other disposition related reports; and
- (4) In other requests for disposition instructions.

(c) The Contractor shall not remove NASA identification or markings from Government-furnished property prior to disposition without the advanced written approval of the NASA Industrial Property Officer.

(End of clause)

G.14 1852.245-82 **OCCUPANCY MANAGEMENT REQUIREMENTS (DEVIATION)** (SEP 2007)

(a) In addition to the requirements of the clause at FAR 52.245-1, Government Property, the Contractor shall comply with the following in performance of work in and around Government real property:

- (1) NPD 8800.14, Policy for Real Property Management.
- (2) NPR 8831.2, Facility Maintenance Management

(b) The Contractor shall obtain the written approval of the Contracting Officer before installing or removing Contractor-owned property onto or into any Government real property or when movement of Contractor-owned property may damage or destroy Government-owned property. The Contractor shall restore damaged property to its original condition at the Contractor's expense.

(c) The Contractor shall not acquire, construct or install any fixed improvement or structural alterations in Government buildings or other real property without the advance, written approval of the Contracting Officer. Fixed improvement or structural alterations, as used herein, means any alteration or improvement in the nature of the building or other real

property that, after completion, cannot be removed without substantial loss of value or damage to the premises. Title to such property shall vest in the Government.

(d) The Contractor shall report any real property or any portion thereof when it is no longer required for performance under the contract, as directed by the Contracting Officer.

(End of Clause)

G.15 JSC 52.242-92 **IDENTIFICATION OF EMPLOYEES** (OCT 2006)

At all times while on Government property, the contractor, subcontractors, their employees, and agents shall wear badges which will be issued by the NASA Badging & Visitor Control Office, located in Building 110 at the Johnson Space Center (JSC), or at the Main Gate at the White Sands Test Facility (WSTF). JSC employee credentials and visitor badges will be issued only between the hours of 6:00 a.m. to 7:30 p.m., Monday through Friday, and 7:30 am to 3:00 pm on Saturday. WSTF employee badges will be issued only between the hours of 8 a.m. to 2 p.m., Monday through Friday. WSTF visitor badges will be issued on a 7-day-a-week, 24-hour-a-day basis. Resident aliens and foreign nationals/representatives shall be issued green foreign national badges.

Each individual who wears a badge shall be required to sign personally for the badge. The contractor shall be held accountable for issued badges and all other related items and must assure that they are returned to the NASA Badging & Visitor Control Offices upon completion of work under the contract in accordance with Security Management Directive (SMD) 500-15, "Security Termination Procedures." Failure to comply with the NASA contractor termination procedures upon completion of the work (e.g., return of badges, decals, keys, Controlled Access Area cards, clearance terminations, JSC Public Key Infrastructure (PKI)/special program deletions, etc.) may result in final payment being delayed.

(End of clause)

[END OF SECTION]

SECTION H

SPECIAL CONTRACT REQUIREMENTS

H.1 LISTING OF CLAUSES INCORPORATED BY REFERENCE

I. The following NFS clause(s) are incorporated by reference:

- 1852.208-81 Restrictions on Printing and Duplicating (NOV 2004)
- 1852.223-75 Major Breach of Safety or Security (FEB 2002)
- 1852.225-70 Export Licenses (FEB 2000) (Alternate 1); in paragraph (b) insert: Johnson Space Center or a Center approved by the Contracting Officer.
- 1852.228-76 Cross-Waiver of Liability for Space Station Activities (DEC 1994)
- 1852.244-70 Geographic Participation in the Aerospace Program (APR 1985).
- 1852.246-70 Mission Critical Space System Personnel Reliability Program (MAR 1997)

H.2 LIMITATION OF FUTURE CONTRACTING

(a) The Contracting Officer has determined that this acquisition may give rise to a potential organizational conflict of interest. Accordingly, the attention of prospective offerors is invited to **FAR Subpart 9.5--Organizational Conflicts of Interest**.

(b) The nature of this conflict is defined in Attachment J-17, Government Organizational Conflict of Interest (OCI) Assessment of IMOC.

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

(1) If the Contractor alone, under the terms of this contract, or through the performance of tasks pursuant to this contract, is required to develop complete specifications or complete statements of work that are to be incorporated into a solicitation, the Contractor shall be ineligible to perform the work described in that solicitation as a prime or first-tier subcontractor under an ensuing NASA contract. This restriction shall remain in effect for a reasonable time, as agreed to by the Contracting Officer and the Contractor, sufficient to avoid unfair competitive advantage or potential bias (this time shall in no case be less than the duration of the initial production contract). Both NASA and the Contractor agree to make good faith efforts to avoid, mitigate, or neutralize any OCI issues that may arise. Attachment J-17 identifies a NASA strategy designed to address OCI concerns.

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

(End of clause)

H.3 TASK ORDERING PROCEDURE

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

(b) Prior to issuing a task order, the Contracting Officer shall provide the Contractor with the following data:

(1) A functional description of the work identifying the objectives or results desired from the contemplated task order.

(2) Proposed performance standards to be used as criteria for determining whether the work requirements have been met.

(3) A request for a task plan from the Contractor to include the technical approach, period of performance, appropriate cost information, OCI Plan specific to the task plan in accordance with the procedures described in the attachments J-16, "OCI Avoidance Plan" and J-17, "Government OCI Assessment" and any other information required to determine the reasonableness of the Contractor's proposal.

(c) In the event any potential OCI is determined to exist, Contractor and the Contracting Officer will enter into good faith negotiations to tailor the requirement, or to develop a mitigation plan to avoid the OCI to the Government's and Contractor's mutual interests.

(d) Within 23 calendar days after receipt of the Contracting Officer's request, the Contractor shall submit a task plan conforming to the request. In the event the Contractor requires more time to generate and submit a Task Plan, a request for additional time shall be made to the Contracting Officer.

(e) After review and any necessary discussions, the Contracting Officer may issue a task order to the Contractor containing, as a minimum, the following:

(1) Date of the order.

(2) Contract number and order number.

(3) Functional description of the work identifying the objectives or results desired from the task order, including special instructions or other information necessary for performance of the task.

(4) Performance standards, and where appropriate, quality assurance standards.

(5) Maximum dollar amount authorized (cost and fee or price). This includes allocation of award fee among award fee periods, if applicable.

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

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

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

(f) The Contractor shall provide acknowledgment of receipt to the Contracting Officer within 2 business days after receipt of the task order.

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

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

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

(End of clause)

H.4 1852.223-70 **SAFETY AND HEALTH** (APR 2002)

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

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

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

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

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

(f)(1) The Contracting Officer may notify the Contractor in writing of any noncompliance with this clause and specify corrective actions to be taken. When the Contracting Officer becomes aware of noncompliance that may pose a serious or imminent danger to safety and health of the public, astronauts and pilots, the NASA

workforce (including contractor employees working on NASA contracts), or high value mission critical equipment or property, the Contracting Officer shall notify the Contractor orally, with written confirmation. The Contractor shall promptly take and report any necessary corrective action.

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

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

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

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

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

(4) When the Contractor (or subcontractor or supplier) determines that the assessed risk and consequences of a failure to properly manage and control the hazard(s) warrants use of the clause.

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

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

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

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

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

(End of clause)

H.5 1852.242-72 **OBSERVANCE OF LEGAL HOLIDAYS** (AUG 1992)

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

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

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

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

(End of clause)

H.6 JSC 52.219-90 **SMALL BUSINESS SUBCONTRACTING GOALS** (OCT 2006)

For purposes of this clause, the terms, "HUBZone Small Business Concern," "Small Disadvantaged Business Concern," "Service-Disabled, Veteran-Owned Small Business Concern," "Veteran-Owned Small Business Concern," "Women-Owned Small Business Concern," and "Historically Black College or University (HBCU)" are defined in paragraph 2.101 of the Federal Acquisition Regulation.

The total small business goal, expressed as a percent of total contract value including options, is 9 percent for contract base years 1-3 and 10 percent for option year 4. The small business percentage goal, includes the following goals expressed as a percent of total contract value:

TYPE	Target SB Goals for Contract Base (yrs 1 -3)	Target SB Goals for Contract option year (yr 4)
SB	9.0%	10%
SDB	2.5%	2.8%
WOSB	3.7%	4.3%
HBCU/MI	0.4%	0.5%
HUBZone	0.5%	0.5%
VOSB	1.0%	1.0%
SDVOSB	0.5%	0.5%

(End of clause)

H.7 ASSOCIATE CONTRACTOR AGREEMENT FOR MISSION OPERATIONS DIRECTORATE (MOD)

- (a) The success of the Mission Operations Directorate (MOD) and Flight Crew Operations Directorate (FCOD) ground-based human spaceflight operations support is dependent on the efforts of multiple contractors. The IMOC contractor is a key participant. The other contracts of the key participating contractors include:

TBD	Facilities Development Operations Contract (FDOC)
NAS9-02102	NBL/SVMF Operations Contract (NSOC)
NNJ06VA01C	Space Program Operations Contract
NNJ04AA01C	Program Integration and Control Contract (PI&C)
NNJ04AA03C	Cargo Mission Contract
NAS15-10000	USOS Acceptance and ISS Vehicle Sustaining Contract
NNJ04AA02C	Mission Integration Contract
NAS10-02007	Checkout, Assembly, and Payload Processing Services (CAPPS)
NNJ06TA25C	Orion Crew Exploration Vehicle Contract (CEV)
NNM07AB03C	Crew Launch Vehicle Ares I-X
NNM07AA75C	Crew Launch Vehicle (CLV) First Stage
NNJ04HA01C	EVA Systems Contract
NAS9-02078	Bioastronautics
NNJ05HI05C	Engineering and Science Contract
NAS9-97005	Medical Support and Integration Contract
NAS9-01060	MacDonald Dettwiler Space Robotics
NNJO6JE86C	Safety and Mission Assurance Contract

- (b) In order to achieve efficient and effective implementation of the MOD and FCOD operations support tasks, the contractor shall establish the means for coordination and exchange of information with associate contractors. The information to be exchanged shall be that required by the contractors in the execution of their respective contract requirements. The contractors are

strongly encouraged to seek out and foster cooperative efforts that will benefit the MOD and FCOD operations support tasks with increased safety, efficiency, and productivity.

- (c) Given the unique role of this contract in developing, operating, maintaining and utilizing the Human Space Flight (HSF) elements, the contractor will engage in cooperative relationships that facilitate effective management of the overall HSF effort. This joint cooperation will be evaluated as part of the contract award fee process, as defined in the Award Fee Plan for the contract. Successful performance will be determined by the Government's assessment of the overall and combined performance of the operation and utilization requirements in the contracts, as modified.
- (d) To ensure successful implementation and utilization of the HSF elements, the contractors shall establish formal guidelines to address coordination, cooperation and communication. All program elements shall work in a coordinated fashion. Each contractor shall establish the means for the exchange of such data as needed to keep other project elements fully informed.

(End of clause)

H.8 **SPACE FLIGHT AWARENESS PROGRAM**

The Contractor shall participate in the existing program for Space Flight Awareness (SFA). The Program's goals and objectives are to:

- Ensure every employee involved in human space flight is aware of the importance of their role in promoting safety, quality, and mission success.
- Increase awareness of the Human Space Flight Program accomplishments, milestones, and objectives with a focus on safety and mission success.
- Conduct events and products that motivate and recognize the workforce, and enhance employee morale.
- Function as an internal communications team to disseminate key educational, program/management safety, quality, and mission success messages and themes.

(End of clause)

H.9 **ENVIRONMENTAL AND ENERGY CONSERVATION REQUIREMENTS**

The Contractor shall ensure that all work performed and equipment used on-site at JSC, Ellington Field, Sonny Carter Training Facility and El Paso Forward Operating Location to fulfill the requirements of this contract are in compliance with all Federal, state, and local regulations and public laws, and the following NASA JSC directives: JPD 8500.1, JSC Environmental Excellence Policy; JPR 8550.1, JSC Environmental Compliance

Procedural Requirements; JPR 8553.1, JSC Environmental Management System Manual; CWI JE9W-06, EMS Aspect/Impact Assessment and EMP Process; NPR 8570.1, Energy Efficiency and Water Conservation; JSC's Energy and Water Conservation 5-Year Plan; and CWI J69W-03, Energy Conservation. The Contractor shall provide data on affirmative procurement, waste reduction activity, energy efficient product procurement, and ozone depleting substances in accordance with DRD 1.9.3, Environmental and Energy Consuming Product Compliance Reports.

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

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

(End of clause)
(END OF SECTION)

SECTION I
CONTRACT CLAUSES

I.1 52.252-2 **CLAUSES INCORPORATED BY REFERENCE** (FEB 1998)

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

Federal Acquisition Regulation (FAR) – <http://www.acqnet.gov/far/>
NASA FAR Supplement –
<http://www.hq.nasa.gov/office/procurement/regs/nfstoc.htm>

I. The following FAR clause(s) are incorporated by reference:

<u>Clause No.</u>	<u>Title</u>
52.202-1	Definitions (JUL 2004)
52.203-3	Gratuities (APR 1984)
52.203-5	Covenant Against Contingent Fees (APR 1984)
52.203-6	Restrictions on Subcontractor Sales to the Government (SEP 2006)
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 (SEP 2007)
52.204-2	Security Requirements (AUG 1996)
52.204-4	Printed or Copied Double-Sided on Recycled Paper (AUG 2000)
52.204-7	Central Contractor Registration (APR 2008)
52.204-9	Personal Identity Verification of Contractor Personnel (SEP 2007)
52.209-6	Protecting the Government's Interest when Subcontracting with Contractors Debarred, Suspended, or Proposed for Debarment (SEP 2006)
52.211-15	Defense Priority and Allocation Requirements (APR 2008)
52.215-2	Audit and Records - Negotiations (JUN 1999)
52.215-8	Order of Precedence – Uniform Contract Format (OCT 1997)
52.215-10	Price Reduction For Defective Cost or Pricing Data (OCT 1997)
52.215-12	Subcontractor Cost or Pricing Data (OCT 1997)
52.215-14	Integrity of Unit Prices (OCT 1997) – Alternate I (OCT 1997)
52.215-15	Pension Adjustments and Asset Reversions (OCT 2004)
52.215-18	Reversion or Adjustment of Plans for Post Retirement Benefits (PRB) Other Than Pensions (JUL 2005)
52.216-7	Allowable Cost and Payment (DEC 2002); insert “30 th ”
52.217-2	Cancellation Under Multiyear Contracts (OCT 1997)
52.217-8	Option to Extend Services (NOV 1999); insert “60 days”
52.219-8	Utilization of Small Business Concerns (MAY 2004)
52.219-9	Small Business Subcontracting Plan (APR 2008), Alternate II (OCT 2001)

<u>Clause No.</u>	<u>Title</u>
52.219-16	Liquidated Damages--Subcontracting Plan (JAN 1999)
52.222-1	Notice to the Government of Labor Disputes (FEB 1997)
52.222-2	Payment for Overtime Premiums (JUL 1990); in paragraph (a) insert: \$-0-
52.222-3	Convict Labor (JUN 2003)
52.222-4	Contract Work Hours and Safety Standards Act--Overtime Compensation (JUL 2005)
52.222-21	Prohibition of Segregated Facilities (FEB 1999)
52.222-26	Equal Opportunity (MAR 2007)
52.222-29	Notification of Visa Denial (JUN 2003)
52.222-35	Equal Opportunity For Special Disabled Veterans, Veterans of the Vietnam Era, and other Eligible Veterans (SEP 2006)
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 (SEP 2006)
52.222-41	Service Contract Act of 1965, As Amended (NOV 2007)
52.222-50	Combating Trafficking in Persons (AUG 2007)
52.223-5	Pollution Prevention and Right-to-Know Information (AUG 2003) – Alternate I (AUG 2003) & Alternate II (AUG 2003)
52.223-10	Waste Reduction Program (AUG 2000)
52.223-14	Toxic Chemical Release Reporting (Aug 2003)
52.223-15	Energy Efficiency in Energy - Consuming Products (DEC 2007)
52.225-5	Trade Agreements (AUG 2007)
52.225-8	Duty-Free Entry (FEB 2000)
52.225-13	Restrictions on Certain Foreign Purchases (JUN 2008)
52.226-1	Utilization of Indian Organizations and Indian-Owned Economic Enterprises (JUN 2000)
52.227-1	Authorization and Consent (DEC 2007) Alternate 1 (APR 1984). The following is substituted for paragraph (a) of the clause: (a) The Government authorizes and consents to all use and manufacturing of any invention described in and covered by a United States patent in performance of this or any subcontractor at any tier.
52.227-2	Notice and Assistance Regarding Patent and Copyright Infringement (DEC 2007)
52.227-16	Additional Data Requirements (JUN 1987)
52.228-7	Insurance -- Liability to Third Persons (MAR 1996)
52.230-2	Cost Accounting Standards (OCT 2008)
52.230-6	Administration of Cost Accounting Standards (MAR 2008)
52.232-9	Limitation on Withholding of Payments (APR 1984)
52.232-17	Interest (OCT 2008)
52.232-22	Limitation of Funds (APR 1984) Substitute 30 days and 85% in paragraph (c).
52.232-23	Assignment of Claims (JAN 1986)
52.232-25	Prompt Payment (OCT 2008) – Alternate I (FEB 2002); in paragraphs (a)(1)(i)(A), (a)(1)(i)(B), and (a)(1)(ii)
52.232-35	Designation of Office for Government Receipt of Electronic Funds Transfer Information (May 1999)
52.233-1	Disputes (JUL 2002) -- Alternate I (DEC 1991)
52.233-3	Protest After Award (AUG 1996) -- Alternate I (JUN 1985)
52.233-4	Applicable Law for Breach of Contract Claim (OCT 2004)
52.237-2	Protection of Government Buildings, Equipment, and Vegetation (APR 1984)

<u>Clause No.</u>	<u>Title</u>
52.237-3	Continuity of Services (JAN 1991)
52.242-1	Notice of Intent to Disallow Costs (APR 1984)
52.242-3	Penalties for Unallowable Costs (MAY 2001)
52.242-4	Certification of Final Indirect Costs (JAN 1997)
52.242-13	Bankruptcy (JUL 1995)
52.243-2	Changes -- Cost-Reimbursement (AUG 1987) -- Alternate II (APR 1984)
52.243-6	Change Order Accounting (APR 1984) – for each change
52.244-2	Subcontracts (JUN 2007) -- Alternate I (JUN 2007);
52.244-5	Competition in Subcontracting (DEC 1996)
52.244-6	Subcontracts for Commercial Items (MAR 2007)
52.245-1	Government Property (JUN 2007)
52.245-2	Government Property Installation Operation Services (JUN 2007) “See attachment J-4, table 3”
52.245-9	Use and Charges (JUN 2007)
52.246-25	Limitation of Liability -- Services (FEB 1997)
52.247-1	Commercial Bill of Lading Notations (FEB 2006); insert “NASA”, “NASA”, “NNJ09HA15C”, “JSC Procurement Office, 2101 NASA Parkway, Houston, TX 77058-3696”
52.247-67	Submission of Transportation Documents for Audit (FEB 2006)
52.248-1	Value Engineering (FEB 2000)
52.249-6	Termination (Cost-Reimbursement) (MAY 2004)
52.249-14	Excusable Delays (APR 1984)
52.251-1	Government Supply Sources (APR 1984)
52.251-2	Interagency Fleet Management System Vehicles and Related Services (JAN 1991)
52.253-1	Computer Generated Forms (JAN 1991)

II. The following NFS clause(s) are incorporated by reference:

<u>Clause No.</u>	<u>Title</u>
1852.203-70	Display of Inspector General Hotline Posters (JUN 2001)
1852.216-89	Assignment and Release Forms (JUL 1997)
1852.219-74	Use of Rural Area Small Businesses (SEP 1990)
1852.219-75	Small Business Subcontracting Reporting (MAY 1999)
1852.219-76	NASA 8 Percent Goal (JUL 1997)
1852.219-79	Mentor Requirements and Evaluation (MAR 1999)
1852.223-74	Drug and Alcohol-Free Workplace (MAR 1996)
1852.225-8	Duty-Free Entry of Space Articles (FEB 2000), insert “none”
1852.228-75	Minimum Insurance Coverage (OCT 1988)
1852.235-70	Center for Aerospace Information (DEC 2006)
1852.237-70	Emergency Evacuation Procedures (DEC 1988)
1852.242-78	Emergency Medical Services and Evacuation (APR 2001)
1852.243-70	Engineering Change Proposals (OCT 2001), Alternate II (SEP 1990)

(End of clause)

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

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

(End of clause)

I.3 52.215-19 **NOTIFICATION OF OWNERSHIP CHANGES** (OCT 1997)

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

(1) When the Contractor becomes aware that a change in its ownership has occurred, or is certain to occur, that could result in changes in the valuation of its capitalized assets in the accounting records, the Contractor shall notify the Administrative Contracting Officer (ACO) within 30 days.

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

(b) The Contractor shall --

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

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

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

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

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

(End of clause)

I.4 52.216-18 **ORDERING** (OCT 1995)

(a) Any supplies and services to be furnished under this contract shall be ordered by issuance of delivery orders or task orders by the individuals or activities designated in the Schedule. Such orders may be issued from 1 Nov 2008 through 30 Sep 2012.

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

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

(End of clause)

I.5 52.216-19 ORDER LIMITATIONS (OCT 1995)

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

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

(1) Any order for a single item in excess of **\$30 Million**;

(2) Any order for a combination of items in excess of **\$30 Million**; or

(3) A series of orders from the same ordering office within five (5) days that together call for quantities exceeding the limitation in paragraph (b)(1) or (2) of this section.

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

(d) Notwithstanding paragraphs (b) and (c) of this section, the Contractor shall honor any order exceeding the maximum order limitations in paragraph (b), unless that order (or orders) is returned to the ordering office within 7 Calendar days after issuance, with written notice stating the Contractor's intent not to ship the item (or items) called for and the reasons. Upon receiving this notice, the Government may acquire the supplies or services from another source.

(End of clause)

I.6 52.216-22 INDEFINITE QUANTITY (OCT 1995)

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

(b) Delivery or performance shall be made only as authorized by orders issued in accordance with the Ordering clause. The Contractor shall furnish to the Government, when and if ordered, the supplies or services specified in the Schedule up to and

including the quantity designated in the Schedule as the “maximum.” The Government shall order at least the quantity of supplies or services designated in the Schedule as the “minimum.”

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

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

(End of Clause)

I.7 52.222-39 NOTIFICATION OF EMPLOYEE RIGHTS CONCERNING PAYMENT OF UNION DUES OR FEES (DEC 2004)

(a) Definition. As used in this clause –

“United States” means the 50 States, the District of Columbia, Puerto Rico, the Northern Mariana Islands, American Samoa, Guam, the U.S. Virgin Islands, and Wake Island.

(b) Except as provided in paragraph (e) of this clause, during the term of this contract, the Contractor shall post a notice, in the form of a poster, informing employees of their rights concerning union membership and payment of union dues and fees, in conspicuous places in and about all its plants and offices, including all places where notices to employees are customarily posted. The notice shall include the following information (except that the information pertaining to National Labor Relations Board shall not be included in notices posted in the plants or offices of carriers subject to the Railway Labor Act, as amended (45 U.S.C. 151-188)).

Notice to Employees

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

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

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

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

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

- (c) The Contractor shall comply with all provisions of Executive Order 13201 of February 17, 2001, and related implementing regulations at 29 CFR Part 470, and orders of the Secretary of Labor.
- (d) In the event that the Contractor does not comply with any of the requirements set forth in paragraphs (b), (c), or (g), the Secretary may direct that this contract be cancelled, terminated, or suspended in whole or in part, and declare the Contractor ineligible for further Government contracts in accordance with procedures at 29 CFR Part 470, Subpart B – Compliance Evaluations, Complaint Investigations and Enforcement Procedures. Such other sanctions or remedies may be imposed as are provided by 29 CFR Part 470, which implements Executive Order 13201, or as are otherwise provided by law.
- (e) The requirement to post the employee notice in paragraph (b) does not apply to –
 - (1) Contractors and subcontractors that employ fewer than 15 persons;
 - (2) Contractor establishments or construction work sites where no union has been formally recognized by the Contractor or certified as the exclusive bargaining representative of the Contractor's employees;
 - (3) Contractor establishments or construction work sites located in a jurisdiction named in the definition of the United States in which the law of that jurisdiction forbids enforcement of union-security agreements;

- (4) Contractor facilities where upon the written request of the Contractor, the Department of Labor Deputy Assistant Secretary for Labor-Management Programs has waived the posting requirements with respect to any of the Contractor's facilities if the Deputy Assistant Secretary finds that the Contractor has demonstrated that –
- (i) The facility is in all respects separate and distinct from activities of the Contractor related to the performance of a contract; and
 - (ii) Such a waiver will not interfere with or impede the effectuation of the Executive order; or
- (5) Work outside the United States that does not involve the recruitment or employment of workers within the United States.
- (f) The Department of Labor publishes the official employee notice in two variations; one for contractors covered by the Railway Labor Act and a second for all other contractors. The Contractor shall –
- (1) Obtain the required employee notice poster from the Division of Interpretations and Standards, Office of Labor-Management Standards, U.S. Department of Labor, 200 Constitution Avenue, NW, Room N-5605, Washington, DC 20210, or from any field office of the Department's Office of Labor-Management Standards or Office of Federal Contract Compliance Programs;
 - (2) Download a copy of the poster from the Office of Labor-Management Standards website at <http://www.olms.dol.gov>; or
 - (3) Reproduce and use exact duplicate copies of the Department of Labor's official poster.
- (g) The Contractor shall include the substance of this clause in every subcontract or purchase order that exceeds the simplified acquisition threshold, entered into in connection with this contract, unless exempted by the Department of Labor Deputy Assistant Secretary for Labor-Management Programs on account of special circumstances in the national interest under authority of 29 CFR 470.3(c). For indefinite quantity subcontracts, the Contractor shall include the substance of this clause if the value of orders in any calendar year of the subcontract is expected to exceed the simplified acquisition threshold. Pursuant to 29 CFR Part 470, Subpart B – Compliance Evaluations, Complaint Investigations and Enforcement Procedures, the Secretary of Labor may direct the Contractor to take such action in the enforcement of these regulations, including the imposition of sanctions for noncompliance with respect to any such subcontract or purchase order. If the Contractor becomes involved in litigation with a subcontractor or vendor, or is threatened with such involvement, as a result of such direction, the Contractor

may request the United States, through the Secretary of Labor, to enter into such litigation to protect the interests of the United States.

(End of clause)

I.8 52.222-42 **STATEMENT OF EQUIVALENT RATES FOR FEDERAL HIRES** (MAY 1989)

In compliance with the Service Contract Act of 1965, as amended, and the regulations of the Secretary of Labor (29 CFR Part 4), this clause identifies the classes of service employees expected to be employed under the contract and states the wages and fringe benefits payable to each if they were employed by the contracting agency subject to the provisions of 5 USC 5341 or 5332. THIS STATEMENT IS FOR INFORMATION ONLY IT IS NOT A WAGE DETERMINATION.

--- See Attachment J-10 for Listing ---

(End of clause)

I.9 52.223-9 **ESTIMATE OF PERCENTAGE OF RECOVERED MATERIAL CONTENT FOR EPA DESIGNATED PRODUCTS** (MAY 2008)

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

“Postconsumer material” means a material or finished product that has served its intended use and has been discarded for disposal or recovery, having completed its life as a consumer item. Postconsumer material is a part of the broader category of “recovered material.”

“Recovered material” means waste materials and by-products recovered or diverted from solid waste, but the term does not include those materials and by-products generated from, and commonly reused within, an original manufacturing process.

(b) The Contractor, on completion of this contract, shall—

(1) Estimate the percentage of the total recovered material content for EPA-designated item(s) delivered and/or used in contract performance, including, if applicable, the percentage of post-consumer material content; and

(2) Submit this estimate to Center Environment Manager.

(End of clause)

Certification

I, _____ (name of certifier), am an officer or employee responsible for the performance of this contract and hereby certify that the percentage of recovered material content for EPA-designated products met the applicable contract specifications.

[Signature of the Officer or Employee]

[Typed Name of the Officer or Employee]

[Title]

[Name of Company, Firm, or Organization]

[Date]

(End of certification)

I.10 52.227-14 **Rights In Data** – General (DEC 2007) – Alternate II (DEC 2007) –
Alternate III (DEC 2007) As Modified By NASA FAR Supplement 1852.227-14

(a) Definitions. “Computer software,” as used in this clause, means computer programs, computer data bases, and documentation thereof.

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

“Form, fit, and function data,” as used in this clause, means data relating to items, components, or processes that are sufficient to enable physical and functional interchangeability, as well as data identifying source, size, configuration, mating, and attachment characteristics, functional characteristics, and performance requirements; except that for computer software it means data identifying source, functional characteristics, and performance requirements but specifically excludes the source code, algorithm, process, formulae, and flow charts of the software.

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

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

“Restricted computer software,” as used in this clause, means computer software developed at private expense and that is a trade secret; is commercial or financial and is confidential or privileged; or is published copyrighted computer software, including minor modifications of such computer software.

“Restricted rights,” as used in this clause, means the rights of the Government in restricted computer software, as set forth in a Restricted Rights Notice of paragraph (g)(3) if included in this clause, or as otherwise may be provided in a collateral agreement incorporated in and made part of this contract,

including minor modifications of such computer software.

“Technical data,” as used in this clause, means data (other than computer software) which are of a scientific or technical nature.

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

(b) Allocation of rights.

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

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

(2) The Contractor shall have the right to —

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

(c) Copyright —

- (1) Data first produced in the performance of this contract. Unless provided otherwise in paragraph (d) of this clause, the Contractor may establish, without prior approval of the Contracting Officer, claim to copyright subsisting in scientific and technical articles based on or containing data first produced in the performance of this contract and published in academic, technical or professional journals, symposia proceedings or similar works. The prior, express written permission of the Contracting Officer is required to establish claim to copyright subsisting in all other data first produced in the performance of this contract. When claim to copyright is made, the Contractor shall affix the applicable copyright notices of 17 U.S.C. 401 or 402 and acknowledgment of Government sponsorship (including contract number) to the data when such data are delivered to the Government, as well as when the data are published or deposited for registration as a published work in the U.S. Copyright Office. For data other than computer software the Contractor grants to the Government, and others acting on its behalf, a paid-up, nonexclusive, irrevocable worldwide license in such copyrighted data to reproduce, prepare derivative works, distribute copies to the public, and perform publicly and display publicly, by or on behalf of the Government. For computer software, the Contractor grants to the Government and others acting in its behalf, a paid-up nonexclusive, irrevocable worldwide license in such copyrighted computer software to reproduce, prepare derivative works, and perform publicly and display publicly by or on behalf of the Government.
- (2) Data not first produced in the performance of this contract. The Contractor shall not, without prior written permission of the Contracting Officer, incorporate in data delivered under this contract any data not first produced in the performance of this contract and which contains the copyright notice of 17 U.S.C. 401 or 402, unless the Contractor identifies such data and grants to the Government, or acquires on its behalf, a license of the same scope as set forth in paragraph (c)(1) of this clause; provided, however, that if such data are computer software the Government shall acquire a copyright license as set forth in paragraph (g)(3) of this clause if included in this contract or as otherwise may be provided in a collateral agreement incorporated in or made part of this contract.
- (3) Removal of copyright notices. The Government agrees not to remove any copyright notices placed on data pursuant to this paragraph (c), and to include such notices on all reproductions of the data.

(d) Release, publication and use of data.

- (1) The Contractor shall have the right to use, release to others, reproduce, distribute, or publish any data first produced or specifically used by the

Contractor in the performance of this contract, except to the extent such data may be subject to the Federal export control or national security laws or regulations, or unless otherwise provided in this paragraph of this clause or expressly set forth in this contract.

- (2) The Contractor agrees that to the extent it receives or is given access to data necessary for the performance of this contract which contain restrictive markings, the Contractor shall treat the data in accordance with such markings unless otherwise specifically authorized in writing by the Contracting Officer.
- (3)
 - (i) The Contractor agrees not to establish claim to copyright, publish or release to others any computer software first produced in the performance of this contract without the Contracting Officer's prior written permission.
 - (ii) If the Government desires to obtain copyright in computer software first produced in the performance of this contract and permission has not been granted as set forth in paragraph (d)(3)(i) of this clause, the Contracting Officer may direct the contractor to assert, or authorize the assertion of, claim to copyright in such data and to assign, or obtain the assignment of, such copyright to the Government or its designated assignee.
 - (iii) Whenever the word "establish" is used in this clause, with reference to a claim to copyright, it shall be construed to mean "assert".

(End of addition)

(e) Unauthorized marking of data.

- (1) Notwithstanding any other provisions of this contract concerning inspection or acceptance, if any data delivered under this contract are marked with the notices specified in paragraph (g)(2) or (g)(3) of this clause and use of such is not authorized by this clause, or if such data bears any other restrictive or limiting markings not authorized by this contract, the Contracting Officer may at any time either return the data to the Contractor, or cancel or ignore the markings. However, the following procedures shall apply prior to canceling or ignoring the markings.
 - (i) The Contracting Officer shall make written inquiry to the Contractor affording the Contractor 30 days from receipt of the inquiry to provide written justification to substantiate the propriety of the markings;
 - (ii) If the Contractor fails to respond or fails to provide written justification to substantiate the propriety of the markings within the 30-day period (or a longer time not exceeding 90 days approved in writing by the Contracting Officer for good cause shown), the

Government shall have the right to cancel or ignore the markings at any time after said period and the data will no longer be made subject to any disclosure prohibitions.

- (iii) If the Contractor provides written justification to substantiate the propriety of the markings within the period set in subdivision (e)(1)(i) of this clause, the Contracting Officer shall consider such written justification and determine whether or not the markings are to be cancelled or ignored. If the Contracting Officer determines that the markings are authorized, the Contractor shall be so notified in writing. If the Contracting Officer determines, with concurrence of the head of the contracting activity, that the markings are not authorized, the Contracting Officer shall furnish the Contractor a written determination, which determination shall become the final agency decision regarding the appropriateness of the markings unless the Contractor files suit in a court of competent jurisdiction within 90 days of receipt of the Contracting Officer's decision. The Government shall continue to abide by the markings under this subdivision (e)(1)(iii) until final resolution of the matter either by the Contracting Officer's determination becoming final (in which instance the Government shall thereafter have the right to cancel or ignore the markings at any time and the data will no longer be made subject to any disclosure prohibitions), or by final disposition of the matter by court decision if suit is filed.
 - (2) The time limits in the procedures set forth in paragraph (e)(1) of this clause may be modified in accordance with agency regulations implementing the Freedom of Information Act (5 U.S.C. 552) if necessary to respond to a request thereunder.
 - (3) This paragraph (e) does not apply if this contract is for a major system or for support of a major system by a civilian agency other than NASA and the U.S. Coast Guard agency subject to the provisions of Title III of the Federal Property and Administrative Services Act of 1949.
 - (4) Except to the extent the Government's action occurs as the result of final disposition of the matter by a court of competent jurisdiction, the Contractor is not precluded by this paragraph (e) from bringing a claim under the Contract Disputes Act, including pursuant to the Disputes clause of this contract, as applicable, that may arise as the result of the Government removing or ignoring authorized markings on data delivered under this contract.
- (f) Omitted or incorrect markings.
- (1) Data delivered to the Government without either the limited rights or restricted rights notice as authorized by paragraph (g) of this clause, or the copyright notice required by paragraph (c) of this clause, shall be deemed

to have been furnished with unlimited rights, and the Government assumes no liability for the disclosure, use, or reproduction of such data. However, to the extent the data has not been disclosed without restriction outside the Government, the Contractor may request, within 6 months (or a longer time approved by the Contracting Officer for good cause shown) after delivery of such data, permission to have notices placed on qualifying data at the Contractor's expense, and the Contracting Officer may agree to do so if the Contractor —

- (i) Identifies the data to which the omitted notice is to be applied;
 - (ii) Demonstrates that the omission of the notice was inadvertent;
 - (iii) Establishes that the use of the proposed notice is authorized; and
 - (iv) Acknowledges that the Government has no liability with respect to the disclosure, use, or reproduction of any such data made prior to the addition of the notice or resulting from the omission of the notice.
- (2) The Contracting Officer may also (i) permit correction at the Contractor's expense of incorrect notices if the Contractor identifies the data on which correction of the notice is to be made, and demonstrates that the correct notice is authorized, or (ii) correct any incorrect notices.
- (g) Protection of limited rights data and restricted computer software.
- (1) When data other than that listed in subdivisions (b)(1)(i), (ii), and (iii) of this clause are specified to be delivered under this contract and qualify as either limited rights data or restricted computer software, if the Contractor desires to continue protection of such data, the Contractor shall withhold such data and not furnish them to the Government under this contract. As a condition to this withholding, the Contractor shall identify the data being withheld and furnish form, fit, and function data in lieu thereof. Limited rights data that are formatted as a computer data base for delivery to the Government are to be treated as limited rights data and not restricted computer software.
 - (2) Notwithstanding paragraph (g)(1) of this clause, the contract may identify and specify the delivery of limited rights data, or the Contracting Officer may require by written request the delivery of limited rights data that has been withheld or would otherwise be withholdable. If delivery of such data is so required, the Contractor may affix the following "Limited Rights Notice" to the data and the Government will thereafter treat the data, subject to the provisions of paragraphs (e) and (f) of this clause, in accordance with such Notice:

Limited Rights Notice (June 1987)

(a) These data are submitted with limited rights under Contract No. NNJ09HA15C (and subcontract _____, if appropriate). These data may be reproduced and used by the Government with the express limitation that they will not, without written permission of the Contractor, be used for purposes of manufacture nor disclosed outside the Government; except that the Government may disclose these data outside the Government for the following purposes, if any; provided that the Government makes such disclosure subject to prohibition against further use and disclosure:

- (i) Use (except for manufacture) by support service contractors.*
- (ii) Evaluation by nongovernment evaluators.*
- (iii) Use (except for manufacture) by other contractors participating in the Government's program of which the specific contract is a part, for information and use in connection with the work performed under each contract.*
- (iv) Emergency repair or overhaul work.*
- (v) Release to a foreign government, or instrumentality thereof, as the interests of the United States Government may require, for information or evaluation, or for emergency repair or overhaul work by such government.*

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

(End of notice)

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

Restricted Rights Notice (June 1987)

- (a) This computer software is submitted with restricted rights under Contract No. NNJ09HA15C (and subcontract _____, if appropriate). It may not be used, reproduced, or disclosed by the Government except as provided in paragraph (b) of this Notice or as otherwise expressly stated in the contract.*
- (b) This computer software may be —*

- (1) *Used or copied for use in or with the computer or computers for which it was acquired, including use at any Government installation to which such computer or computers may be transferred;*
 - (2) *Used or copied for use in a backup computer if any computer for which it was acquired is inoperative;*
 - (3) *Reproduced for safekeeping (archives) or backup purposes;*
 - (4) *Modified, adapted, or combined with other computer software, provided that the modified, combined, or adapted portions of the derivative software incorporating restricted computer software are made subject to the same restricted rights;*
 - (5) *Disclosed to and reproduced for use by support service Contractors in accordance with paragraphs (b)(1) through (4) of this clause, provided the Government makes such disclosure or reproduction subject to these restricted rights; and*
 - (6) *Used or copied for use in or transferred to a replacement computer.*
- (c) *Notwithstanding the foregoing, if this computer software is published copyrighted computer software, it is licensed to the Government, without disclosure prohibitions, with the minimum rights set forth in paragraph (b) of this clause.*
 - (d) *Any other rights or limitations regarding the use, duplication, or disclosure of this computer software are to be expressly stated in, or incorporated in, the contract.*
 - (e) *This Notice shall be marked on any reproduction of this computer software, in whole or in part.*

(End of notice)

- (ii) Where it is impractical to include the Restricted Rights Notice on restricted computer software, the following short-form Notice may be used in lieu thereof:

Restricted Rights Notice Short Form (June 1987)

Use, reproduction, or disclosure is subject to restrictions set forth in Contract No. NNJ09HA15C (and subcontract, if appropriate) with United Space Alliance, Barrios, and Bastion (name of Contractor and subcontractor).

(End of notice)

- (iii) If restricted computer software is delivered with the copyright notice of 17 U.S.C. 401, it will be presumed to be published copyrighted computer software licensed to the Government without disclosure prohibitions, with the minimum rights set forth in paragraph (b) of

this clause, unless the Contractor includes the following statement with such copyright notice: "Unpublished—rights reserved under the Copyright Laws of the United States."

- (h) Subcontracting. The Contractor has the responsibility to obtain from its subcontractors all data and rights therein necessary to fulfill the Contractor's obligations to the Government under this contract. If a subcontractor refuses to accept terms affording the Government such rights, the Contractor shall promptly bring such refusal to the attention of the Contracting Officer and not proceed with subcontract award without further authorization.
- (i) Relationship to patents. Nothing contained in this clause shall imply a license to the Government under any patent or be construed as affecting the scope of any license or other right otherwise granted to the Government.

(End of clause)

I.11 52.252-6 **AUTHORIZED DEVIATIONS IN CLAUSES** (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 Regulation (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.12 1852.204-75 **SECURITY CLASSIFICATION REQUIREMENTS** (SEP 1989)

Performance under this contract will involve access to and/or generation of classified information, work in a security area, or both, up to the level of TOP SECRET. See Federal Acquisition Regulation clause **52.204-2** in this contract and DD Form 254, Contract Security Classification Specification, Attachment J-14.

(End of clause)

I.13 1852.204-76 **SECURITY REQUIREMENTS FOR UNCLASSIFIED INFORMATION TECHNOLOGY RESOURCES** (MAY 2008) DEVIATION

(a) The Contractor shall be responsible for information and information technology (IT) security when –

- (1) The Contractor or its subcontractors must obtain physical or electronic (i.e., authentication level 2 and above as defined in National Institute of Standards and Technology (NIST) Special Publication (SP) 800-63, Electronic Authentication Guideline) access to NASA's computer systems, networks, or IT infrastructure; or

(2) Information categorized as low, moderate, or high by the Federal Information Processing Standards (FIPS) 199, Standards for Security Categorization of Federal Information and Information Systems is stored, generated, processed, or exchanged by NASA or on behalf of NASA by a contractor or subcontractor, regardless of whether the information resides on a NASA or a contractor/subcontractor's information system.

(b) IT Security Requirements.

(1) Within 30 days after contract award, a Contractor shall submit to the Contracting Officer for NASA approval an IT Security Plan, Risk Assessment, and FIPS 199, Standards for Security Categorization of Federal Information and Information Systems, Assessment. These plans and assessments, including annual updates shall be incorporated into the contract as compliance documents.

(i) The IT system security plan shall be prepared consistent, in form and content, with NIST SP 800-18, Guide for Developing Security Plans for Federal Information Systems, and any additions/augmentations described in NASA Procedural Requirements (NPR) 2810, Security of Information Technology. The security plan shall identify and document appropriate IT security controls consistent with the sensitivity of the information and the requirements of Federal Information Processing Standards (FIPS) 200, Recommended Security Controls for Federal Information Systems. The plan shall be reviewed and updated in accordance with NIST SP 800-26, Security Self-Assessment Guide for Information Technology Systems, and FIPS 200, on a yearly basis.

(ii) The risk assessment shall be prepared consistent, in form and content, with NIST SP 800-30, Risk Management Guide for Information Technology Systems, and any additions/augmentations described in NPR 2810. The risk assessment shall be updated on a yearly basis.

(iii) The FIPS 199 assessment shall identify all information types as well as the "high water mark," as defined in FIPS 199, of the processed, stored, or transmitted information necessary to fulfill the contractual requirements.

(2) The Contractor shall produce contingency plans consistent, in form and content, with NIST SP 800-34, Contingency Planning Guide for Information Technology Systems, and any additions/augmentations described in NPR 2810. The Contractor shall perform yearly "Classroom Exercises." "Functional Exercises," shall be coordinated with the Center CIOs and be conducted once every three years, with the first conducted within the first two years of contract award. These exercises are defined and described in NIST SP 800-34.

(3) The Contractor shall ensure coordination of its incident response team with the NASA Incident Response Center (NASIRC) and the NASA Security Operations Center, ensuring that incidents are reported consistent with NIST SP 800-61, Computer Security Incident Reporting Guide, and the United States Computer Emergency Readiness Team's (US-CERT) Concept of Operations for reporting security incidents. Specifically, any confirmed incident of a system containing NASA data or controlling NASA assets shall be reported to NASIRC within one hour that results in unauthorized access, loss or modification of NASA data, or denial of service affecting the availability of NASA data.

(4) The Contractor shall ensure that its employees, in performance of the contract, receive annual IT security training in NASA IT Security policies, procedures, computer ethics, and best practices in accordance with NPR 2810 requirements. The Contractor may use web-based training available from NASA to meet this requirement.

(5) The Contractor shall provide NASA, including the NASA Office of Inspector General, access to the Contractor's and subcontractors' facilities, installations,

operations, documentation, databases, and personnel used in performance of the contract. Access shall be provided to the extent required to carry out IT security inspection, investigation, and/or audits to safeguard against threats and hazards to the integrity, availability, and confidentiality of NASA information or to the function of computer systems operated on behalf of NASA, and to preserve evidence of computer crime. To facilitate mandatory reviews, the Contractor shall ensure appropriate compartmentalization of NASA information, stored and/or processed, either by information systems in direct support of the contract or that are incidental to the contract.

(6) The Contractor shall ensure that system administrators who perform tasks that have a material impact on IT security and operations demonstrate knowledge appropriate to those tasks. A system administrator is one who provides IT services (including network services, file storage, and/or web services) to someone other than themselves and takes or assumes the responsibility for the security and administrative controls of that service.

(7) The Contractor shall ensure that NASA's Sensitive But Unclassified (SBU) information as defined in NPR 1600.1, NASA Security Program Procedural Requirements, which includes privacy information, is encrypted in storage and transmission.

(8) When the Contractor is located at a NASA Center or installation or is using NASA IP address space, the Contractor shall --

(i) Submit requests for non-NASA provided external Internet connections to the Contracting Officer for approval by the Network Security Configuration Control Board (NSCCB);

(ii) Comply with the NASA CIO metrics including patch management, operating systems and application configuration guidelines, vulnerability scanning, incident reporting, system administrator certification, and security training; and

(iii) Utilize the NASA Public Key Infrastructure (PKI) for all encrypted communication or non-repudiation requirements within NASA when secure email capability is required.

(c) Physical and Logical Access Requirements.

(1) Contractor personnel requiring access to IT systems operated by the Contractor for NASA or interconnected to a NASA network shall be screened at an appropriate level in accordance with NPR 2810 and Chapter 4, NPR 1600.1, NASA Security Program Procedural Requirements. NASA shall provide screening, appropriate to the highest risk level, of the IT systems and information accessed, using, as a minimum, National Agency Check with Inquiries (NACI). The Contractor shall submit the required forms to the NASA Center Chief of Security (CCS) within fourteen (14) days after contract award or assignment of an individual to a position requiring screening. The forms may be obtained from the CCS. At the option of NASA, interim access may be granted pending completion of the required investigation and final access determination. For Contractors who will reside on a NASA Center or installation, the security screening required for all required access (e.g., installation, facility, IT, information, etc.) is consolidated to ensure only one investigation is conducted based on the highest risk level. Contractors not residing on a NASA installation will be screened based on their IT access risk level determination only. See NPR 1600.1, Chapter 4.

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

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

(ii) IT-2 -- Individuals having privileged access or limited privileged access to systems whose misuse can cause serious adverse impact to NASA missions. These systems include, for example, those that can transmit commands directly modifying the behavior of payloads on spacecraft, satellites or aircraft; and those that contain the primary copy of "level 1" information whose cost to replace exceeds one million dollars.

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

(3) Screening for individuals shall employ forms appropriate for the level of risk as established in Chapter 4, NPR 1600.1.

(4) The Contractor may conduct its own screening of individuals requiring privileged access or limited privileged access provided the Contractor can demonstrate to the Contracting Officer that the procedures used by the Contractor are equivalent to NASA's personnel screening procedures for the risk level assigned for the IT position.

(5) Subject to approval of the Contracting Officer, the Contractor may forgo screening of Contractor personnel for those individuals who have proof of a --

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

(ii) Screening conducted by NASA within the last three years that meets or exceeds the screening requirements of the IT position; or

(iii) Screening conducted by the Contractor, within the last three years, that is equivalent to the NASA personnel screening procedures as approved by the Contracting Officer and concurred on by the CCS.

(d) The Contracting Officer may waive the requirements of paragraphs (b) and (c)(1) through (c)(3) upon request of the Contractor. The Contractor shall provide all relevant information requested by the Contracting Officer to support the waiver request.

(e) The Contractor shall contact the Contracting Officer for any documents, information, or forms necessary to comply with the requirements of this clause.

(f) At the completion of the contract, the contractor shall return all NASA information and IT resources provided to the contractor during the performance of the contract and certify that all NASA information has been purged from contractor-owned systems used in the performance of the contract.

(g) The Contractor shall insert this clause, including this paragraph (g), in all subcontracts

(1) Have physical or electronic access to NASA's computer systems, networks, or IT infrastructure; or

(2) Use information systems to generate, store, process, or exchange data with NASA or on behalf of NASA, regardless of whether the data resides on a NASA or a contractor's information system.

(End of clause)

I.14 1852.215-84 **OMBUDSMAN** (OCT 2003), Alternate I (JUN 2000)

- (a) An ombudsman has been appointed to hear and facilitate the resolution of concerns from offerors, potential offerors, and contractors during the preaward and postaward 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 source 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, Lucy V. Kranz, Associate Director (Management), NASA, Lyndon B. Johnson Space Center, Mail code AC, 2101 NASA Parkway, Houston, TX 77058-3696, 281-244-7683 (phone), 281-483-2200 (fax), lucy.v.kranz@nasa.gov. Concerns, issues, disagreements, and recommendations which cannot be resolved at the installation may be referred to the NASA ombudsman, the Director of the Contract Management Division, at 202-358-0445, facsimile 202-358-3083, e-mail james.a.balinskas@nasa.gov. Please do not contact the ombudsman to request copies of the solicitation, verify offer due date, or clarify technical requirements. Such inquiries shall be directed to the Contracting Officer or as specified elsewhere in this document.
- (c) If this is a task or delivery order contract, the ombudsman shall review complaints from contractors and ensure they are afforded a fair opportunity to be considered, consistent with the procedures of the contract.

(End of clause)

I.15 1852.237-72 **ACCESS TO SENSITIVE INFORMATION** (JUN 2005)

- (a) As used in this clause, "sensitive information" refers to information that a contractor has developed at private expense, or that the Government has generated that qualifies for an exception to the Freedom of Information Act, which is not currently in the public domain, and which may embody trade secrets or commercial or financial information, and which may be sensitive or privileged.
- (b) To assist NASA in accomplishing management activities and administrative functions, the Contractor shall provide the services specified elsewhere in this contract.
- (c) If performing this contract entails access to sensitive information, as defined above, the Contractor agrees to -
 - (1) Utilize any sensitive information coming into its possession only for the purposes of performing the services specified in this contract, and not to improve its own competitive position in another procurement.

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

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

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

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

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

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

(d) The Contractor will comply with all procedures and obligations specified in its Organizational Conflicts of Interest Avoidance Plan, which this contract incorporates as a compliance document.

(e) The nature of the work on this contract may subject the Contractor and its employees to a variety of laws and regulations relating to ethics, conflicts of interest, corruption, and other criminal or civil matters relating to the award and administration of government contracts. Recognizing that this contract establishes a high standard of accountability and trust, the Government will carefully review the Contractor's performance in relation to the mandates and restrictions found in these laws and regulations. Unauthorized uses or disclosures of sensitive information may result in termination of this contract for default, or in debarment of the Contractor for serious misconduct affecting present responsibility as a government contractor.

(f) The Contractor shall include the substance of this clause, including this paragraph (f), suitably modified to reflect the relationship of the parties, in all subcontracts that may involve access to sensitive information.

(End of clause)

I.16 1852.237-73 **RELEASE OF SENSITIVE INFORMATION** (JUN 2005)

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

(b) In accomplishing management activities and administrative functions, NASA relies heavily on the support of various service providers. To support NASA activities and functions, these service providers, as well as their subcontractors and their individual employees, may need access to sensitive information submitted by the Contractor under this contract. By submitting this proposal or performing this contract, the Contractor agrees that NASA may release to its service providers, their subcontractors, and their individual employees, sensitive information submitted during the course of this procurement, subject to the enumerated protections mandated by the clause at 1852.237-72, Access to Sensitive Information.

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

Mark the title page with the following legend:

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

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

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

(2) The Contracting Officer shall evaluate the facts supporting any claim that particular information is "sensitive." This evaluation shall consider the time and resources necessary to protect the information in accordance with the detailed safeguards mandated by the clause at 1852.237-72, Access to Sensitive Information. However, unless the Contracting Officer decides, with the advice of Center counsel, that reasonable grounds exist to challenge the Contractor's claim that particular information is sensitive, NASA and its service providers and their employees shall comply with all of the safeguards contained in paragraph (d) of this clause.

(d) To receive access to sensitive information needed to assist NASA in accomplishing management activities and administrative functions, the service provider must be operating under a contract that contains the clause at 1852.237-72, Access to Sensitive Information. This clause obligates the service provider to do the following:

(1) Comply with all specified procedures and obligations, including the Organizational Conflicts of Interest Avoidance Plan, which the contract has incorporated as a compliance document.

(2) Utilize any sensitive information coming into its possession only for the purpose of performing the services specified in its contract.

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

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

(5) Preclude access and disclosure of sensitive information to persons and entities outside of the service provider's organization.

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

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

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

(e) When the service provider will have primary responsibility for operating an information technology system for NASA that contains sensitive information, the service provider's contract shall include the clause at 1852.204-76, Security Requirements for Unclassified Information Technology Resources. The Security Requirements clause requires the service provider to implement an Information Technology Security Plan to protect information processed, stored, or transmitted from unauthorized access, alteration, disclosure, or use. Service provider personnel requiring privileged access or limited privileged access to these information technology systems are subject to screening using the standard National Agency Check (NAC) forms appropriate to the level of risk for adverse impact to NASA missions. The Contracting Officer may allow the service provider to conduct its own screening, provided the service provider employs substantially equivalent screening procedures.

(f) This clause does not affect NASA's responsibilities under the Freedom of Information Act.

(g) The Contractor shall insert this clause, including this paragraph (g), suitably modified to reflect the relationship of the parties, in all subcontracts that may require the furnishing of sensitive information.

(End of clause)

I.17 1852.245-77 List of Installation-Accountable Property and Services (JUL 2005)

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

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

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

(1) Equipment to be made available is listed in Attachment J-4, Table 1. The Government retains accountability for this property under the clause at 1852.245-71, Installation-Accountable Government Property, regardless of its authorized location.

(2) If the Contractor acquires property, title to which vests in the Government pursuant to other provisions of this contract, this property also shall become accountable to the Government upon its entry into Government records as required by the clause at 1852.245-71, Installation-Accountable Government Property.

(3) The Contractor shall not bring to the installation for use under this contract any property owned or leased by the Contractor, or other property that the Contractor is

accountable for under any other Government contract, without the Contracting Officer's prior written approval.

- (c) Supplies from stores stock.
- (d) Publications and blank forms stocked by the installation.
- (e) Safety and fire protection for Contractor personnel and facilities.
- (f) Installation service facilities: None [Insert the name of the facilities or "None"].
- (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. Moving services shall be provided on-site, as approved by the Contracting Officer.
- (k) The user responsibilities of the Contractor are defined in paragraph (a) of the clause at 1852.245-71, Installation-Accountable Government Property.

(End of clause)

I.18 1852.231-70 Precontract Costs (JUN 1995)

The Contractor shall be entitled to reimbursement for costs incurred on or after August 25, 2008 in an amount not to exceed \$379,376 that, if incurred after this contract had been entered into, would have been reimbursable under this contract.

(End of clause)

THIS PAGE IS RESERVED

(END OF SECTION)

SECTION J

INTEGRATED MISSION OPERATIONS CONTRACT

ATTACHMENTS

J-1	LOE/IDIQ/CF CROSS REFERENCE TO SOW REQUIREMENTS
J-2	APPLICABLE/REFERENCE DOCUMENTS
J-3	APPLICABLE NASA/JSC POLICIES AND PROCEDURES
J-4	FURNISHED PROPERTY
J-5	ACRONYMS AND ABBREVIATIONS
J-6	DATA REQUIREMENTS LIST
J-7	DATA REQUIREMENT DESCRIPTION
J-8	AWARD FEE PLAN
J-9	IDIQ RATES
J-10	STATEMENT OF EQUIVALENT RATES FOR FEDERAL HIRES
J-11	WAGE DETERMINATIONS
J-12	SMALL BUSINESS SUBCONTRACTING PLAN
J-13	PERSONAL IDENTITY VERIFICATION (PIV) CARD ISSUANCE PROCEDURES
J-14	DD FORM 254
J-15	SAFETY AND HEALTH PLAN
J-16	IMOC OCI AVOIDANCE PLAN
J-17	GOVERNMENT ORGANIZATIONAL CONFLICT OF INTEREST (OCI) ASSESSMENT OF IMOC

ATTACHMENT J-1

LOE/IDIQ/CF CROSS REFERENCE TO SOW REQUIREMENTS

ATTACHMENT J-1

LOE/IDIQ/CF CROSS REFERENCE TO SOW REQUIREMENTS

THE FOLLOWING TABLE IS PROVIDED ONLY AS A GUIDELINE TO THE DISTRIBUTION OF SOW REQUIREMENTS INTO CF/LOE/IDIQ CONTRACT MECHANISMS.

Note: Management Completion Form (CF) is across all years.

1	MANAGEMENT	-
1.1	MANAGEMENT PROCESSES, PLANNING AND REVIEWS	CF
1.2	RISK MANAGEMENT	CF
1.3	PROJECT INFORMATION RESOURCES AND PERFORMANCE MANAGEMENT	CF
1.3.1	PERFORMANCE MEASUREMENT	CF
1.4	CONTRACT MANAGEMENT	CF
1.4.1	PRIME CONTRACT MANAGEMENT	CF
1.4.2	SUBCONTRACT MANAGEMENT	CF
1.5	INFORMATION, DOCUMENT, AND RECORDS MANAGEMENT	CF
1.5.1	INFORMATION MANAGEMENT	CF
1.5.2	RECORDS MANAGEMENT	CF
1.6	CONFIGURATION MANAGEMENT	CF
1.7	PROPERTY MANAGEMENT	CF
1.8	SECURITY AND TECHNOLOGY PROTECTION MANAGEMENT	CF
1.9	SAFETY, QUALITY ASSURANCE, MISSION ASSURANCE, AND ENVIRONMENTAL MANAGEMENT	
1.9.1	OCCUPATIONAL SAFETY	CF
1.9.2	MISSION AND QUALITY ASSURANCE	CF
1.9.3	ENVIRONMENTAL MANAGEMENT	CF
1.10	QUALITY MANAGEMENT SYSTEM AND ADMINISTRATION	CF

		EXPLORATION		ISS
		FY 09 & 10	FY 11 & 12	FY 11 & 12
2.0	OPERATIONS INTEGRATION	-	-	-
2.1	ADMINISTRATIVE SUPPORT	CF	CF	CF
2.2	SAFETY INTEGRATION AND ANALYSIS	LOE	IDIQ	IDIQ
2.3	DOCUMENTATION AND ELECTRONIC MEDIA	-	-	-

	SUPPORT			
2.3.1	OPERATIONS DOCUMENTATION MANAGEMENT	LOE	IDIQ	IDIQ
2.3.2	FLIGHT RULES SUPPORT	LOE	IDIQ	IDIQ
2.3.3	EDITORIAL SUPPORT	CF	CF	CF
2.3.4	ELECTRONIC MEDIA SUPPORT	CF	CF	CF
2.3.5	LIBRARY AND DOCUMENTATION MAINTENANCE	CF	CF	CF
2.4	TECHNICAL INTEGRATION AND PRODUCTION PROCESS	-	-	-
2.4.1	TECHNICAL INTEGRATION AND PRODUCTION PROCESS DEVELOPMENT	LOE	IDIQ	IDIQ
2.4.2	TECHNICAL INTEGRATION AND PRODUCTION PROCESS SUPPORT	LOE	IDIQ	IDIQ
2.5	SPECIAL DEVELOPMENT PROJECTS	IDIQ	IDIQ	IDIQ
3.0	MISSION OPERATIONS PREPARATION (PLAN)	-	-	-
3.1	DEVELOP MISSION OPERATIONS CAPABILITY AND PROCESSES	LOE	IDIQ	IDIQ
3.2	INPUTS TO PROGRAM FOR MISSION OPERATIONS PREPARATION	-	-	-
3.2.1	PROGRAM LEVEL SUPPORT	-	-	-
3.2.1.1	PROGRAM LEVEL BOARD SUPPORT	LOE	IDIQ	IDIQ
3.2.1.2	MOD Program Level Change Request (CR) Support	LOE	IDIQ	IDIQ
3.2.2	VEHICLE REQUIREMENT AND DESIGN SUPPORT	LOE	IDIQ	IDIQ
3.2.3	MISSION DEFINITION EVALUATION AND STRATEGIC PLANNING	LOE	IDIQ	IDIQ
3.2.3.1	Mission Definition And Evaluation	LOE	IDIQ	IDIQ
3.2.3.2	Flight Software Requirements Evaluation	LOE	IDIQ	IDIQ
3.2.3.3	Strategic Planning Assessments	LOE	IDIQ	IDIQ
3.3	MISSION DEVELOPMENT	-	-	-
3.3.1	MISSION PLANNING			
3.3.1.1	Mission Planning Support	LOE	IDIQ	IDIQ
3.3.1.2	Inputs to Command and Telemetry Data Reconfiguration Process	LOE	IDIQ	IDIQ
3.3.1.3	International Partner Coordination And Support	-	-	IDIQ
3.3.1.4	Visiting Vehicle Coordination And Support	-	-	IDIQ
3.3.1.5	Crew On-orbit Support Products	-	-	CF
3.3.2	MISSION ANALYSIS	LOE	IDIQ	IDIQ
3.3.3	MISSION DESIGN	LOE	IDIQ	IDIQ
3.3.4	MISSION READINESS	-	IDIQ	IDIQ
3.4	INPUTS TO MISSION SYSTEMS DEVELOPMENT	-	-	-
3.4.1	USER APPLICATIONS REQUIREMENTS DEVELOPMENT AND ACCEPTANCE TESTING	LOE	IDIQ	IDIQ
3.4.2	MISSION SYSTEMS REQUIREMENTS	LOE	IDIQ	IDIQ
4.0	MISSION OPERATIONS TRAINING (TRAIN)	-	-	-

4.1	TRAINING MANAGEMENT AND ADMINISTRATION SUPPORT	LOE	IDIQ	IDIQ
4.2	TRAINING SCHEDULES	LOE	IDIQ	IDIQ
4.3	ASTRONAUT CANDIDATE TRAINING	-	-	IDIQ
4.4	FLIGHT CONTROLLER, INSTRUCTOR, AND ANALYST TRAINING/CERTIFICATION	LOE	IDIQ	IDIQ
4.4.1	FLIGHT CONTROLLER, INSTRUCTOR, AND ANALYST TRAINING REQUIREMENTS	LOE	IDIQ	IDIQ
4.4.2	FLIGHT CONTROLLER, INSTRUCTOR, AND ANALYST CURRICULUM, LESSON, AND SIMULATION DEVELOPMENT	LOE	IDIQ	IDIQ
4.4.3	FLIGHT CONTROLLER, INSTRUCTOR, AND ANALYST TRAINING EXECUTION	LOE	IDIQ	IDIQ
4.5	FLIGHT CREW TRAINING	LOE	IDIQ	IDIQ
4.5.1	FLIGHT CREW TRAINING REQUIREMENTS	LOE	IDIQ	IDIQ
4.5.2	FLIGHT CREW CURRICULUM, LESSON AND SIMULATION DEVELOPMENT	LOE	IDIQ	IDIQ
4.5.3	FLIGHT CREW TRAINING EXECUTION	LOE	IDIQ	IDIQ
4.6	ADVANCED TRAINING CONCEPTS	LOE	IDIQ	IDIQ
5.0	MISSION EXECUTION (FLY)	-	-	-
5.1	REALTIME FLIGHT CONTROL	-	-	IDIQ
5.2	SPACECRAFT ANALYSIS (SPAN)	-	-	CF
5.3	REAL-TIME ANALYSIS	-	-	IDIQ
6.0	FCOD SUPPORT	-	-	-
6.1	ASTRONAUT SCHEDULING	-	-	CF
6.2	PROGRAM/PROJECT REQUIREMENTS DEVELOPMENT/CHANGE TECHNICAL ASSESSMENTS	CF	CF	CF
6.3	LONG-DURATION CREW SUPPORT	-	CF	CF
6.4	FLIGHT CREW EQUIPMENT (FCE) INTEGRATION	CF	CF	CF
6.5	OPERATIONS DEVELOPMENT FOR SPACE FLIGHT/MISSION	CF	CF	CF
6.6	FLIGHT CREW TRAINING DEVELOPMENT	CF	CF	CF
6.7	SPACE MODULE/ELEMENT ASSEMBLY, SYSTEM AND UTILIZATION OPERATIONS ASSESSMENT AND TESTING	CF	CF	CF
6.8	DISPLAY DEVELOPMENT	CF	CF	CF
6.9	SPACE FLIGHT/MISSION PROGRAMS INTEGRATION	CF	CF	CF
6.10	LIBRARY, DATABASE, AND DOCUMENTATION MAINTENANCE	CF	CF	CF
6.11	CREW/VEHICLE INTEGRATION AND TESTING	CF	CF	CF
6.12	CAPSULE COMMUNICATOR (CAPCOM) SUPPORT	-	CF	CF

ATTACHMENT J-2
APPLICABLE/REFERENCE DOCUMENTS

ATTACHMENT J-2

APPLICABLE/REFERENCE DOCUMENTS

The current version of the following documents will be adhered to during the performance of contract.

TYPE	DOCUMENT NUMBER	TITLE
Applicable	CxP-72131	CxP MOP Operations Concept
Applicable	CxP 72165	MO Project Plan
Applicable	CxP-72132	CxP MOP System Engineering Management Plan
Applicable	CxP-72133	CxP MOP Master Verification Plan (MVP)
Applicable	DA6-WI-01	Flight Manager Familiarization Plan
Applicable	DA6-WI-02	Flight Implementation Data Pack (FIDP) Process
Applicable	DA6-WI-05	Roles and Responsibilities
Applicable	DA6-WI-06	ISS Monthly Program Review Procedures
Applicable	DA6-WI-11	DA6 Test Management Process
Applicable	DA-WI-03	DA/MOD Process Integrity Metrics Work Instruction
Applicable	DA-WI-05	MOD Export Control Process
Applicable	DA-WI-06	DA/MOD Project Status Review Work Instruction
Applicable	DA-WI-07	DA/MOD Safety Committee Work Instruction Revision
Applicable	DA-WI-11	DA/MOD Quality Improvement Processes: Corrective Action, Preventive Action and Continual Improvement
Applicable	DA-WI-12	DA/MOD Safety Advisory Board
Applicable	DA-WI-13	DA/MOD Documentation and Data Control Revision A
Applicable	DA-WI-15	DA/MOD Readiness Review Work Instruction
Applicable	DA-WI-16	Mission Operations Directorate Space Flight Personnel Certification Plan
Applicable	DA-WI-18	DA/MOD Risk Management Process
Applicable	DX-003	Mission Operations Directorate MCC PC Accessed Data and Applications Hosting Review Work Instruction
Applicable	DX-004	DX MCC PC APPLICATION/DATA
Applicable	JPD 2314.2	Managing Internal JSC Documents
Applicable	JSC 63756	MOD Software Management Plan
Applicable	JSC-17519	Vehicle Integration Plan for Space Operations
Applicable	JSC-28140	MOD ISS CoFR Implementation Plan
Applicable	JSC-36528	MOD SR&QA Plan
Applicable	NASA STD-8719.11	Safety for Fire Protection
Applicable	NMI 8821.1	Mishap Reporting and Investigation
Applicable	NPD 1040.4	NASA Continuity of Operations

TYPE	DOCUMENT NUMBER	TITLE
Applicable	NPD 8710.1	NASA Emergency Preparedness Program
Applicable	NPD 8715.2	NASA Emergency Preparedness Plan Procedural Requirements
Applicable	NPD 9501.1	NASA Contractor Financial Management Reporting System
Applicable	NPG 1700.1 (V1-B & V2)*	Guidelines for Mishap Investigation
Applicable	NPR 7120.5	NASA Program and Project Management Processes and Requirements
Applicable	NPR 8621.1	NASA Procedural Requirements for Mishap Reporting, Investigating, and Recordkeeping
Applicable	NPR 8715.3	NASA Safety Manual
Applicable	SSP-50645	ISS Command and Telemetry Team (ICATT) Standards
Applicable	USA000356	Extravehicular Activity (EVA) Certification Guide
Reference	CAP SFO	Agency Contingency Action Plan for Space Flight Operations
Reference	CxP 70000	Constellation Architecture Requirements Document (CARD)
Reference	CxP 70003	Constellation Program Plan (CxPP)
Reference	CxP 70006	System Requirements Review (SRR) Process Plan
Reference	CxP 70007	Constellation Design Reference Missions and Operational Concepts(all annexes, including Annex 2 - Lunar Timeline)
Reference	CxP 70008	Constellation Program Master Integration and Verification Plan (MIVP)
Reference	CxP 70009	Constellation Program Systems Integrated Analysis Plan (SIAP)
Reference	CxP 70016	Constellation Program Requirements Engineering Management Plan
Reference	CxP 70026	Constellation Program Crew Exploration Vehicle - To - Crew Launch Vehicle Interface Requirements Document
Reference	CxP 70028	Constellation Program Crew Exploration Vehicle - To - Ground Systems Interface Requirements Document
Reference	CxP 70029	Constellation Program Crew Exploration Vehicle - To - Mission Systems Interface Requirements Document
Reference	CxP 70031	Constellation Program Crew Exploration Vehicle - To - International Space Station Interface Requirements Document
Reference	CxP 70032	Constellation Program Low Impact Docking System (LIDS) Interface Definition Document (IDD)
Reference	CxP 70033	Constellation Program Crew Exploration Vehicle - To - Extravehicular Activity Systems Interface Requirements Document
Reference	CxP 70038	Constellation Program Hazard Analyses Methodology
Reference	CxP 70044	Constellation Program Natural Environment Definition for Design (NEDD)
Reference	CxP 70052	Constellation Program Crew Launch Vehicle (CLV) - To - Ground Systems Interface Requirements Document (IRD)
Reference	CxP 70053	Constellation Program Crew Launch Vehicle (CLV) - To - Mission Systems (MS) Interface Requirements Document (IRD)

TYPE	DOCUMENT NUMBER	TITLE
Reference	CxP 70054	Constellation Program Mission Systems (MS) - To - Ground Systems (GS) Interface Requirements Document (IRD)
Reference	CxP 70055	Constellation Program Safety, Reliability, and Quality Assurance Plan
Reference	CxP 70056	Constellation Program Risk Management Plan
Reference	CxP 70059	Constellation Program Safety, Reliability, and Quality Assurance (SR&QA) Requirements
Reference	CxP 70067	Constellation Program Human-Rating Plan
Reference	CxP 70068-01	Constellation Program Problem Reporting, Analysis and Corrective Action (PRACA) Requirements, Volume 1, Problem Processing Requirements
Reference	CxP 70070-ANX01	Constellation Program Program Management Plan Annex 1: Boards and Panels Structure
Reference	CxP 70073-02	Constellation Program Management Systems Requirements Volume 2: Data Management Requirements
Reference	CxP 70077	Constellation Program Architecture Description Document (ADD)
Reference	CxP 70077-ANX01	Constellation Program Architecture Description Document (ADD), Annex 1: Flight Manifest
Reference	CxP 70084	Constellation Program Integrated Test Plan
Reference	CxP 70085	Constellation Program Integrated Flight Test Strategy Document
Reference	CxP 70090	Constellation Program Crew Exploration Vehicle (CEV) - To - Crew Launch Vehicle (CLV) Crew Abort Techniques Development Plan
Reference	CxP 70127	Constellation Program Ares I-1 Flight Test Plan
Reference	CxP 70130	Constellation Program Extravehicular Activity Design and Construction Specification
Reference	CxP 70136	Constellation Program Loads Data Book: Overview, Criteria, and Methodologies
Reference	CxP 70137	Constellation Program Structural Loads Control Plan
Reference	CxP 70138	Constellation Program Level 2 Coordinate Systems
Reference	CxP 70142	Constellation Program Navigation Standards Specification Document
Reference	CxP 70150	Constellation Program Ares I-1 Flight Test Vehicle (FTV) - To - Ground Systems (GS) Interface Requirements Document (IRD)
Reference	CxP 70151	Constellation Program Mass Properties Control Plan
Reference	CxP 70153	Constellation Program Ares I-X SR&QA Plan
Reference	CxP 70161	Constellation Program System Integration Plan (SIP)
Reference	CxP 70162	Constellation Program Nomenclature Plan
Reference	CxP 72134	Constellation Program Mission Operations Project (MOP) Architectural Description Document (ADD)
Reference	CxP 72136	Mission Systems System Requirement Document (SRD)

TYPE	DOCUMENT NUMBER	TITLE
Reference	CxP 72203	Baseline Operations Plan (BOP) for Mission Class Orion to ISS document
Reference	DA39-200602	MODNet Standards, Policies, and Processes
Reference	DA6-WI-04	MOD Activity Prioritization
Reference	DA6-WI-07	ISS Performance Measurement System Procedures
Reference	DA6-WI-08	ISS Quarterly Review Metrics Procedures
Reference	DA6-WI-09	Schedule Production Procedures
Reference	DA6-WI-13	ISS Program Data Submittal Procedures
Reference	DA6-WI-17	MOD Product Integration Board Charter
Reference	DA-WI-10	DA/MOD Work Guidelines
Reference	DM-CH-01	TOPO Console Handbook
Reference	DM-CH-02	LDO Console Handbook
Reference	DM-CH-09	VVO/ARO Console Handbook
Reference	DM-SW-01	DM GAF FDD User Involvement in the Formal MCC Software Life Cycle
Reference	DM-TR-03	Ascent Analysis Training Guide
Reference	DM-TR-04	Training Guide for the Visiting Vehicle Group
Reference	DM-WI-02	Document and Data Control
Reference	DM-WI-04	Discrepancy Reporting Process
Reference	DM-WI-07	Descent Analysis Process
Reference	DM-WI-08	Rendezvous Flight Procedures Handbook
Reference	DM-WI-2101	Flight Readiness Process Plan
Reference	DM-WI-3301	Lead TOPO Handbook
Reference	DM-WI-3303	Trajectory Design Handbook
Reference	DO4-WI-01	MOD ISS Planning Process Control, Volume I, Responsibilities and Process Definition
Reference	DO4-WI-02	MOD ISS Planning Process Control, Volume II, Planning Guide for Pre-Increment Planning Phase
Reference	DO4-WI-03	MOD ISS Planning Process Control, Volume III, Planning Guide for Execute Planning Phase
Reference	DO4-WI-04	Flight Planning & Operations Planning Certification Guide
Reference	DO5-WI-01	DO5 Transfer Handbook
Reference	DO5-WI-02	Inventory and Stowage Officer Handbook
Reference	DO5-WI-03	Cargo Integration and Operations Branch Handbook (COBH)
Reference	DO5-WI-04	Cargo Support Console Handbook (CSCH) - Core
Reference	DO5-WI-05	Cargo Integration and Operations Branch Certification Guide
Reference	DO5-WI-06	Cargo System Manual Development Guideline Document
Reference	DO5-WI-07	Cargo Integration Office (CIO) Console Handbook
Reference	DOD 5200.1R	Information Security Program Regulations
Reference	DO-WI-03	Operations Division Space Flight Personnel Certification Plan
Reference	DO-WI-04	DO Flight Readiness Process Plan
Reference	DO-WI-1405	Document and Data Control
Reference	DT 2221	Station Systems Training Certification Guide

TYPE	DOCUMENT NUMBER	TITLE
Reference	DT 301	STL Certification Guide
Reference	DV1-03	User ID and Password Security Policy for MOD DV2 Mission Critical Systems
Reference	DV1-04	MCC/IPS Security Incident Reporting Procedure
Reference	DV2-01	MCC Change Control Process
Reference	DV2-02	IPS Change Control Process
Reference	DV2-03	MCC Test Coordination Plan
Reference	DV2-06	IPS Application Certification Documentation
Reference	DX-002	EVA, Robotics & Crew Systems Operations Division Configuration Control Board (DX CCB) Charter
Reference	DX12-0001	NBL GOP
Reference	DX12-0002	NBL Standard Operating Procedures
Reference	DX12-0112	NBL External Users Guide
Reference	DX12-0113	NBL Mockup Requirements
Reference	DX12-0116	NBL Change Request Process
Reference	DX14-0027	Space Vehicle Mockup Facility Test Readiness Review Work Instruction (SVMR TRR WI)
Reference	DX14-0028	Space Vehicle Mockup Facility Change Request Flow
Reference	DX14-0029	Space Vehicle Mockup Facility Scheduling Priority List
Reference	DX14-0032	Space Vehicle Mockup Facility Tour Policy
Reference	DX14-0033	Space Vehicle Mockup Facility Safety Review Work Instruction
Reference	DX14-0038	SVMF Facility Guide
Reference	DX14-0039	Space Vehicle Mockup Facility Access Policy
Reference	DX22-0001	DX22 ROBO Cert Lesson
Reference	JHB 2000	Consolidated Comprehensive Emergency Management Plan (CCEMP)
Reference	JPG 1700.1	JSC Safety & Total Health Handbook
Reference	JPR 8550.1	JSC Environmental Compliance Procedural Requirements
Reference	JPR 8553.1	JSC Environmental Management System (EMS) Manual
Reference	JSC 07268	HUMAN SPACE SYSTEMS OPERATIONAL DESIGN CRITERIA MANUAL (John Commonsense)
Reference	JSC 17773	Instruction for Preparation of Hazard Analysis for JSC Ground Operations
Reference	JSC 23275	Astronaut Flight Crew Family Plan
Reference	JSC 36049	Training Development and Support Plan (TDSP)
Reference	JSC 63409	DM Landing Site Table Operations Concept
Reference	JSC-10506	The Drafting Standards for System Handbook Drawings
Reference	JSC-13499	CCF FEPS Subsystem Video Processor System (VPS) Requirements
Reference	JSC-20597	EVA Console Handbook, Volume 1: Standard Console Procedures
Reference	JSC-20597	EVA Console Handbook, Volume 3: ISS EVA Operations
Reference	JSC-20597	EVA Console Handbook, Volume 4: EMU Operations

TYPE	DOCUMENT NUMBER	TITLE
Reference	JSC-24399	Property Control of Experiment Ground Support Equipment (EGSE) at the Lyndon B. Johnson Space Center
Reference	JSC-26830	Space Vehicle Mockup Facility (SVMF) General Operating Procedures
Reference	JSC-27029	Software Management Plan for Mission Control Center Applications
Reference	JSC-27240	Rendezvous and Proximity Operations Design Reference for the ISS
Reference	JSC-27302	Lighting System Workbook Lighting 21002 EVA, Robotics, and Crew Systems Branch
Reference	JSC-27930	RGPO Training Guide
Reference	JSC-27963	Systems Division Space Flight Personnel Certification Plan
Reference	JSC-28528	Preparation and Revision of DX Mockup Development Requirement Documents (MDRD's)
Reference	JSC-28905 Vol. I	Mission Control Center Operations Handbook (MOH): Volume I, MCC General Operating Procedures
Reference	JSC-28905 Vol. III	Mission Control Center Operations Handbook (MOH): Volume III, MCC Standard Operating Procedures
Reference	JSC-29229	Flight Control Operations Handbook for Station Operations
Reference	JSC-29632	Flight Controllers Interviewing/Hiring Guidelines
Reference	JSC-29853	Flight Dynamics Operational Plan: Orbit Flight Dynamics
Reference	JSC-36027	International Space Station Systems Handbook (ISSSH)
Reference	JSC-36030	Onboard, Data, Interface, and Network (ODIN) Certification Guide
Reference	JSC-36031	PHALCON Certification Guide
Reference	JSC-36032	Thermal Control Systems THOR Certification Guide
Reference	JSC-36033	CATO Certification Guide
Reference	JSC-36035	Operations Support Officer (OSO) Certification Guide
Reference	JSC-36054	JSC-36054 Systems Operations Data File (SODF) Management Plan (plus all annexes)
Reference	JSC-36142	Motion Control System (MCS) Certification Guide
Reference	JSC-36149	TOPO Certification Guide
Reference	JSC-36273	ECLSS Certification Guide
Reference	JSC-36329	Attitude Determination and Control Officer (ADCO) Standard Console Procedures
Reference	JSC-36330	Communications and Tracking Console Handbook
Reference	JSC-36331	ISS ECLSS Console Handbook
Reference	JSC-36332	Onboard Data Interfaces and Networks (ODIN) Console Handbook: Volume 1
Reference	JSC-36333	Operation Support Officer (OSO) Console Handbook
Reference	JSC-36334	PHALCON Console Handbook
Reference	JSC-36340	Houston Support Group (HSG) Moscow Operations Handbook
Reference	JSC-36345	Extravehicular Activities (EVA) Space to Space Communication

TYPE	DOCUMENT NUMBER	TITLE
		System (SSCS) Training Workbook - EVA SSCS 21002
Reference	JSC-36356	Robotics Operations Officer Certification Guide
Reference	JSC-36373	Houston Support Group (HSG) Certification Guide
Reference	JSC-36399	International Liaison Group/DO32 Handbook, Volume B
Reference	JSC-36406	ROBO Console Handbook
Reference	JSC-36410	ADCO Systems Briefs
Reference	JSC-36415	International Operations Branch, Mission Operations Procedures Certification Guide, Volume I
Reference	JSC-36432	International Space Station Thermal Control Systems Console Handbook
Reference	JSC-36452	Docking Compartment (DC) Technical Databook
Reference	JSC-36455	Interpreter Training and Certification Guide
Reference	JSC-36471	International Space Station SPAN Console Operating Procedure
Reference	JSC-36481	Operations Baseline Generic Assumptions
Reference	JSC-36482	Operations Baseline Reference Data
Reference	JSC-36493	Space Station Mechanical and Robotics Systems Instructor Certification Guide
Reference	JSC-36496-GEN	MOD International Liaison Console Handbook, Generic and RIO Operations
Reference	JSC-36503	Cargo and Integration Officer (CIO) Console Note of Information
Reference	JSC-36506	Plug-In Plan Tool Version 2.0 User's Guide
Reference	JSC-36507	Automated Transfer Vehicle (ATV) Systems Manual
Reference	JSC-36517	Assembly Operations Handbook (AOH), ISS Generic
Reference	JSC-36518	Data Book: Functional Cargo Block (FGB)
Reference	JSC-49668	MCC-H Website and Web Utility Standards and Style Guide
Reference	JSC-63138	MCC Platform Services & Hardware Subsystem Rqmts, Workstations and Servers
Reference	JSC-63420	Mission Control Center (MCC) and Integrated Planning System (IPS) Operational Change Control Process
Reference	JSC-63814	Joint Operations Interface Procedures (JOIP) for Shuttle Payload Flights
Reference	JSC-63817	Cargo Operations Support Group (COSG) Desk Instructions
Reference	JSC-63829	Cargo Integration and Operations Branch Desk Instruction
Reference	JSC-63870	ODF Operations Handbook
Reference	NSTS-12820	ISS Generic Operational Flight Rules, Volume B
Reference	NSTS-12820	Soyuz/Progress ISS Joint Flight Rules, Volume D ()
Reference	OSHA TED 8.4	Voluntary Protection Plan (VPP) Policies and Procedures Manual
Reference	SSP 50170	ISS US Generic Multilateral/Increment Training Plan (MA/ITP)
Reference	SSP 50170	ISS Crew Training Plan/Budget
Reference	SSP 50261-01	Generic GR&C Rev. B DCN 026 April 2006
Reference	SSP 50261-02	Generic Groundrules and Constraints Part 2: Execution Planning

TYPE	DOCUMENT NUMBER	TITLE
Reference	SSP 54004	SSP 54004 Increment Definition and Requirements Document for Increment X Standard Blank Book Rev B June 2007
Reference	SSP-50252	Operations Data File (ODF) Management Plan
Reference	SSP-50253	International Space Station Program - Operations Data File Standards
Reference	SSP-50253 Annex E	Operations Data File Standard, Annex E, Part 1, U.S. SODF Specific Standards
Reference	SSP-50254	Operations Nomenclature
Reference	SSP-50254 Annex E	Operations Nomenclature – Annex E, Part 1 - NASA
Reference	SSP-50255	Flight Mechanics Trajectory
Reference	SSP-50643	Operations Interface Procedures, Generic
Reference	SSP-50643-A	Operations Interface Procedures, Volume A, NASA/Rosaviakosmos
Reference	SSP-50643-B	Operations Interface Procedures, Volume B, NASA/CSA
Reference	SSP-50643-C	ISS Operation Interface Procedures Volume C: NASA/JAXA
Reference	SSP-50643-D	ISS Operation Interface Procedures Volume D: NASA/ESA Columbus
Reference	SSP-50643-E	ISS Operation Interface Procedures Volume E: NASA/ESA ATV Roscosmos
Reference	TD0101	ITI Handbook
Reference	USA010099	Training Development Support Plan
Reference	WI DI-01	Systems Operations Data File (SODF) Procedure Development Process
Reference	WI DI-02	MOD CDDT Coordination and Certification Procedures
Reference	WI DI-03	Operations Readiness Test (ORT) Process and Procedures Document
Reference	WI DI-04	Thin Layer Validation/Certification Coordination Document
Reference	WI DI-05	Station Program Note (SPN) Flowdown Process
Reference	WI DI-06	Flight Control Team Station Program Note (SPN) Approval Process
Reference	WI DI-07	MCC PC Accessed Data and Applications Hosting Review
Reference	WI DI-08	Command Error Reporting
Reference	WI DS-01	Preparation of Flight Controller Certification Folder
Reference	WI DS-02	Standard Console Procedures (SCP) Change Process
Reference	WI DS-03	Documentation Control of STV Division Work Instructions
Reference	WI DS-06	Command Procedures Handbook Change Process
Reference	WI DS-07	Mission Data Server (MDS) File Management Plan
Reference	WI DS-08	Systems Division Software Management Plan
Reference	WI DS-09	Discipline Technical Representative (DTR) Roles and Responsibilities Document
Reference	WI DS-10	MCC PC Group Administrator and TCVS Administrator Procedures

TYPE	DOCUMENT NUMBER	TITLE
Reference	WI DS-30	MCC PC Accessed Data and Applications Hosting Review
Reference	WI DS-33	Command Error Reporting
Reference	WI DS-34	Preparation of Systems Division Shuttle and Station CoFR Packages

ATTACHMENT J-3
APPLICABLE NASA/JSC POLICIES AND PROCEDURES

ATTACHMENT J-3

APPLICABLE NASA/JSC POLICIES AND PROCEDURES

- A. The following policies and procedures apply to work performed on NASA centers and other field installations:

NASA POLICY DIRECTIVES

NPD 1040.4	NASA Continuity of Operations
NPD 1440.6	NASA Records Management
NPD 1490.1	NASA Printing, Duplicating, Copying, Forms and Mail Management
NPD 1600.2	NASA Security Policy
NPD 1660.1	NASA Counterintelligence (CI) Policy
NPD 2540.1	Personal Use of Government Office Equipment Including Information Technology
NPD 2800.1	Managing Information Technology
NPD 2810.1	NASA Information Security Policy
NPD 2820.1	NASA Software Policy (Applicable only to software developments or software procurements that are entirely new, not upgrades to existing systems, valued at over \$2 million, and are for delivery as products to NASA for NASA use.)
NPD 4100.1	Supply Support and Material Management Policy
NPD 4200.1	Equipment Management
NPD 4300.1	NASA Personal Property Disposal Policy
NPD 4300.4	Use of Space Shuttle and Aerospace Vehicle Materials as Mementos
NPD 8010.2	Use of the SI (Metric) System of Measurement in NASA Programs
NPD 8500.1	NASA Environmental Management
NPD 8710.1	NASA Emergency Preparedness Program
NPD 8710.5	NASA Safety Policy for Pressure Vessels and Pressurized Systems
NPD 8800.14	Policy for Real Property Management
NPD 8820.3	Facility Sustainable Design
NPD 8831.1	Maintenance of Institutional and Program Facilities and Related Equipment
NPD 9501.1	NASA Contractor Financial Management Reporting System

NASA PROCEDURAL REQUIREMENTS AND STANDARDS

NPR 1441.1	NASA Records Retention Schedules
NPR 1490.1F	NASA Printing, Duplicating, and Copying, Forms, and Mail Management
NPR 1600.1	NASA Security Program Procedural Requirements (Dated 11/03/04)
NPR 1620.2	Physical Security Vulnerability Risk Assessments
NPR 1620.3	Physical Security Requirements for NASA Facilities and Property
NPR 1660.1	Counterintelligence (CI)/Counterterrorism (CT) Procedural Requirements
NPR 2800.1	Managing Information Technology
NPR 2810.1A	Security of Information Technology
NPR 4100.1	NASA Materials Inventory Management Manual
NPR 4200.1	NASA Equipment Management Manual
NPR 4200.2	Equipment Management Manual for Property Custodians
NPR 4300.1	NASA Personal Property Disposal Procedural Requirements
NPR 4310.1	Identification and Disposition of NASA Artifacts
NPR 5200.1	Industrial Labor Relations Manual
NPR 6000.1	Requirements for Packaging, Handling, and Transportation for Aeronautical and Space Systems, Equipment and Associated Components
NPR 7120.5C	NASA Program and Project Management Processes and Requirements
NPR 8000.4	Risk Management Procedural Requirements
NPR 8553.1	NASA Environmental Management System (EMS)
NPR 8570.1	Energy Efficiency and Water Conservation
NPR 8715.1	NASA Safety and Health Handbook Occupational Safety and Health Programs
NPR 8715.3	NASA Safety Manual
NPR 8715.4	In-Service Inspection of Ground-Based Pressure Vessels and Systems (3/29/04)
NPR 8735.1	Procedures for Exchanging Parts, Materials, and Safety Problem Data Utilizing the Government-Industry Data Exchange Program and NASA Advisories
NPR 8800.15	Real Estate Management Program Implementation Manual
NPR 8820.2	Facility Project Implementation Guide
NPR 8831.2	Facilities Maintenance Management
NPR 9501.2	NASA Contractor Financial Management Reporting

OTHER NASA POLICY ISSUANCES

NASA Guidance for Implementation of Executive Order 12856, Federal Compliance with Right-to-Know Laws and Pollution Prevention Requirements and Related Environmental Executive Orders (December 1994)

NASA Environmental Justice Strategy (March 1995)

Technical Memorandum 108606, NASA Metric Transition Plan (February 10, 1992)

POLICY ISSUANCES EXTERNAL TO NASA

Executive Order 13423	Strengthening Federal Environmental, Energy, and Transportation Management
ANSI/ISO/ASQ Q9001-2000	American National Standard Quality Management System - Requirements
ANSI/NCSL Z540-1-1994	Calibration Laboratories and Measuring and Test Equipment
15 C.F.R. 730 - 774	Department of Commerce (DOC) Export Administration Regulations (EAR)
22 C.F.R. 120 - 130	Department of State (DOS) International Traffic In Arms (ITAR)

B. The following policies and procedures apply to work performed on at JSC:

JOHNSON PROCEDURAL DIRECTIVES

JPD 1620.1	Establishment of Security Areas at JSC
JPD 1710.1	Design, Inspection, and Certification of Pressure Vessels and Pressurized Systems
JPD 2314.2	Managing Internal JSC Documents
JPD 8080.2	JSC Design and Procedural Standards
JPD 8500.1	JSC Environmental Excellence Policy
JPD 8820.2	Facility Construction, Rehabilitation, Modification, and Repair

JOHNSON POLICY GUIDELINES AND PROCEDURAL REQUIREMENTS

JPR 1440.3	JSC Files and Records Management Procedures.
JPR 1700.1	JSC Safety and Total Health Handbook
JPR 1710.13	Design, Inspection, and Certification of Pressure Vessels and Pressurized Systems
JPR 8080.5	JSC Design and Procedural Standards
JPR 8550.1	JSC Environmental Compliance Procedural Requirements
JPR 8553.1	JSC Environmental Management System (EMS) Manual

OTHER POLICIES AND PROCEDURES

JSC 17773	Instruction for Preparation of Hazard Analyses for JSC Ground Operations
JSC 26549	Control of Program Stock - Customer
JSC 27301	Materials Control Plan for JSC Flight Hardware
JSC 28484	Program Requirements Document for Johnson Space Center Non Critical Government Furnished Equipment
SSP 50223	ISS Export Control Plan
J29W.01	JSC Export Compliance Work Instruction
CWI JE9W-06	EMS Aspect/Impact Assessment and EMP Process
CWI J69W-03	Energy Conservation

ATTACHMENT J-4
FURNISHED PROPERTY

ATTACHMENT J-4
FURNISHED PROPERTY

Table 1

INSTALLATION ACCOUNTABLE PROPERTY

This list will be completed in detail at the completion of SPOC.
For example this list will contain:
IT equipment for on-site contractors.

Table 2

GOVERNMENT FURNISHED PROPERTY

This list will be completed in detail at the completion of SPOC.
For example this list will contain:
PC IT equipment in off-site contractor facilities.
Training Cameras
Crew On-Board Support System Lab Hardware and supplies:
CDs and Crew Personal Support Disk (SSC hard drive)
Video recording and editing equipment
FCOD crew preference equipment

Table 3

GOVERNMENT FURNISHED PROPERTY PURSUANT TO 52.245-2

This list will be completed in detail at the completion of SPOC.
For example this list will contain:
PC IT equipment in off-site contractor facilities.

ATTACHMENT J-5
ACRONYMS AND ABBREVIATIONS

ATTACHMENT J-5

ACRONYMS AND ABBREVIATIONS

Certain terms, acronyms, and abbreviations used in this contract are listed and defined below. This Attachment J-5 is for informational only. If and to the extent any definition contained below conflicts with any other portion of the contract, the other portion of the contract shall prevail.

<http://www6.jsc.nasa.gov/AcronymCentral/scripts/index.cfm>

ACA	Associate Contractors' Agreement
ACO	Administrative Contracting Officer
ADCO	Attitude Determination and Control Officer
ADD	Architecture Description Document
AECA	Arms Export Control Act
ANSI	American National Standards Institute
AOH	Assembly Operations Handbook
ARO	Automated Rendezvous Officer
ASCAN	Astronaut Candidate
ATV	Autonomous Transfer Vehicle
BICE	Bureau of Immigration and Customs Enforcement
BOP	Baseline Operations Plan
CAP	Contingency Action Plan
CAPPS	Checkout, Assembly and Payload Processing
CARD	Constellation Architecture Requirements Document
CASB	Cost Accounting Standards Board
CATO	Communications and Tracking Officer
CBT	Computer-Based Training
CCB	Configuration Control Board
CCF	Consolidated Control Facility
CCS	Center Chief of Security
CCSMP	Consolidated Comprehensive Emergency Management Plan
CD	Compact Disk
CDDT	Common Display Development Team

CDDT	Count Down Demonstration Test
CDR	Critical Design Review
CEV	Crew Exploration Vehicle
CF	Completion Form
CFR	Code of Federal Regulations
CHeCS	Crew Health Care System
CI	Counterintelligence
CIO	Cargo Integration Office or Cargo Integration Officer
CLV	Crew Launch Vehicle
CM	Configuration Management
CMP	Configuration Management Plan
CMR	Contract Management Reviews
COBH	Cargo Integrated Operations Branch Handbook
CofF	Construction of Facilities
CoFR	Certificate of Flight Readiness
COSG	Cargo Operations Support Group
COSS	Crew On-orbit Support System
COTR	Contracting Officer's Technical Representative
COTS	Commercial-Off-The-Shelf or Commercial Access to Space
CPAF	Cost Plus Award Fee
CPR	Certification Planning and Reporting
CPR	Cardiopulmonary Resuscitation
CPSD	Crew Personal Support Disk
CR	Change Request
CSA	Canadian Space Agency
CSCH	Cargo Support Console Handbook
CSO	Corporate Security Officer
CSR	Customer Service Room
CT	Counterterrorism
Cx	Constellation
CxOP	Constellation Operations Panel
CxPP	Constellation Program Plan
CY	Calendar Year

DA	Mission Operations Directorate
DACR	Days Away Case Rate
DART	Days Away plus Restricted Duty plus Job Transfer
DC	Docking Compartment
DCII	Defense Clearance Investigations Index
DCN	Document Change Notice
DD	Department of Defense
DD	Mission Operations Facilities Division
DFI	Developmental Flight Instrumentation
DI	Expedition Vehicle Division
DM	Flight Design and Dynamics Division
DO	Operations Division
DOC	Department of Commerce
DoD	Department of Defense
DOS	Department of State
DR	Discrepancy Report
DRD	Data Requirements Description or Data Requirements Document
DRL	Data Requirements List
DRTS	Discrepancy Report Tracking System
DS	Space Transportation Vehicle
DTO	Developmental Test Objective
DTR	Division Technical Representative
DX	EVA, Robotics and Crew Systems Operations Division
EAR	Export Administrative Regulations
ECLSS	Environmental Control and Life Support System (Subsystem)
ECP	Engineering Change Proposal
EDCC	Engineering Design Control Center
EGSE	Experimental Ground Support Equipment
EMP	Environmental Management Plan
EMS	Environmental Management System
EMU	Extravehicular Mobility Unit
EOD	Entry On Duty
e-QIP	Electronic Questionnaires for Investigations Processing

ESA	European Space Agency
EVA	Extravehicular Activity
FAR	Federal Acquisition Regulation
FCE	Flight Crew Equipment
FCOD	Flight Crew Operations Directorate (JSC)
FCR	Flight Control Room [in the MCC]
FCT	Flight Control Team or Flight Controller Trainer
FDD	Flight Design and Dynamics
FDO	Flight Dynamics Officer or Fee Determination Official
FEPS	Front End Processor System
FGB	Functional Cargo Block (Russian Build Space Vehicle)
FIPS	Federal Information Processing Standard
FOIG	Flight Operations Integration Group
FOR	Flight Operations Reviews
FPM	Flight Production Managers
FPMR	Federal Property Management Regulation
FPRA	Forward Pricing Rate Agreements
FR	Flight Rules
FRCB	Flight Rules Control Board
FRD	Flight Requirements Document
FRR	Flight Readiness Review
FSO	Facility Security Officer
FSW	Flight Software - Onboard GPC software
FTP	Flight Techniques Panel
FTV	Flight Test Vehicle
GAF	Government Accountable Function
GAO	Government Accountability Office
GGR&C	Generic Groundrules, Requirements and Constraints
GJOP	Government Joint Operations Panel
GOP	General Operating Procedures
GR&C	Groundrules, Requirements and Constraints.
GS	Ground System(s)
GSA	General Services Administration

HDBK	Handbook
HQ	Headquarters
HSG	Houston Support Group
HTV	Hope Transfer Vehicle
ICATT	ISS Command and Telemetry Team
IDD	Interface Definition Document
IDIQ	Indefinite Delivery Indefinite Quantity
IDMS	Identity Management System
IDRD	Increment Definition Requirements Document
IMOC	Integrated Mission Operations Contract
IP	International Partner
IPS	Integrated Planning System
IRD	Interface Requirements Document
ISO	International Standardization Organizations
ISS	International Space Station
ISSP	International Space Station/Program (or ISSP)
ISSSH	International Space Station Systems Handbook
ISVR	Independent Safety Verification Review
ITAR	International Traffic in Arms Regulations
ITI	Increment Training Integrator
IVA	Intra-Vehicular Activity
J	Japanese
J/A	Japanese/American
JAXA	Japan Aerospace Exploration Agency
JHB	Johnson Handbook
JOIP	Joint Operations Integration Panel
JOP	Joint Operating Procedure
JPG	JSC Program Guideline
JPR	Johnson Space Center Procedural Requirement
JSC	Lyndon B. Johnson Space Center
KSC	John F. Kennedy Space Center
LDO	Loads and DOLILU Officer
LIDS	Low Impact Docking System

LOE	Level of Effort
MCC	Mission Control Center
MCC-H	Mission Control Center - Houston
MCS	Motion Control System
MDRD	Mockup Development Requirements Document
MDS	Mission Data Server
MEI	Minimum Essential Information
MER	Mission Evaluation Room
MIVP	Master Integration and Verification Plan
MOD	Mission Operations Directorate
MODNet	Mission Operations Division Network
MOH	Mission Control Center Operations Handbook
MOPCB	Mission Operations Project Control Board
MPSR	Multi-Purpose Support Room
MS	Mission Systems
MSFC	George C. Marshall Space Flight Center
N/A	Not Applicable
NAC	National Agency Check
NACI	National Agency Check with Inquiries
NASA	National Aeronautics and Space Administration
NASIRC	NASA Incident Response Center
NBL	Neutral Buoyancy Laboratory
NCIC	National Crime Information Center
NEDD	Natural Environments Definition for Design
NFNMS	NASA Foreign National Management System
NFS	National Federal Schedule
NIST	National Institute of Standards and Technology
NMI	NASA Management Instruction
NPD	NASA Program Directive, NASA Policy Directive
NPR	NASA Procedural Requirement
NSDM	National Security Decision Memorandum
NSN	National Stock Number
OCAD	Operational Controls Agreements Database

OCI	Organizational Conflict of Interest
ODF	Operations Data File
ODF	Operations Data File
ODIN	Onboard Data Interfaces and Network
OPM	Office of Personnel Management
OPS	Operations
ORR	Operations Readiness Review
ORT	Operations Readiness Test
OSHA	Occupational Safety and Health Administration
OSO	Operation Support Officer
P	Progress (Russian Space Vehicle)
PACS	Physical Access Control System
PC	Personal Computer
PHALCON	Power, Heating, Articulation, Lighting and Control (Officer)
PIP	Performance Improvement Plan
PIV	Personal Identity Verification
PMS	Performance Measurement System
PPBE	Planning, Programming, Budgeting and Execution
PRACA	Problem Reporting and Corrective Action
PTT	Part Task Trainer
PV	Procedure Validation
PVCS	Paper and Version Control System
QARC	Quality Assurance Discrepancy Reporting and Tracking System
QMS	Quality Management System
QSMR	Quality System Management Review
QSP	Quality System Panel
RFID	Radio Frequency Identifier
RFP	Request for Proposal
RGPO	Rendezvous Guidance and Procedures Officer
RIO	Russian Interface Officer
RME	Risk Mitigation Experiments
ROBO	Robotics Operations
S&MA	Safety and Mission Assurance

SBU	Sensitive But Unclassified
SCP	Standard Console Procedure
SERP	Safety Engineering Review Panel
SI	Standard Internationale (metric)
SIAP	Systems Integrated Analysis Plan
SIP	Systems Integration Plan
SMD	Security Management Directive
SODF	Systems Operations Data File
SOW	Statement of Work
SPAN	Spacecraft Analysis
SPN	Station Program Note
SPOC	Space Program Operations Contract
SR&QA	Safety, Reliability and Quality Assurance
SR&QA	Safety, Reliability and Quality Assurance
SRD	System Requirements Document
SRR	System Requirements Review
SSC	Station Support Computer
SSCS	Space to Space Communications System
SSN	Social Security Number
SSTF	Space Station Training Facility
STAR	Scheduling, Training Administration and Records
STD	Standard (Document)
STL	Station Training Lead
STV	Space Transportation Vehicle
SVMF	Space Vehicle Mockup Facility
TAMS	Training and Management System
TBD	To Be Determined
TCVS	Tortoise Concurrent Version System
TDSP	Training Development and Support Plan
THOR	Thermal Operations and Resources
TMR	Technical Management Representative
TOPO	Trajectory Operations and Planning Officer
TRIR	Total Recordable Injury Rate

TRR	Test Readiness Review
ULF	Utilization and Logistics Flight
US	United States
USA	United States of America or United Space Alliance
USOS	U.S. On-Orbit Segment
VITT	Vehicle Integration Test Team
VMDB	Vehicle Measurement Data Base
VPP	Voluntary Protection Program
VVO	Visiting Vehicle Officer
WBS	Work Breakdown Structure
WI	Work Instruction
WSTF	White Sands Test Facility

ATTACHMENT J-6

DATA REQUIREMENTS LIST

ATTACHMENT J-6 DATA REQUIREMENTS LIST

JSC DATA REQUIREMENTS LIST (DRL)

(See reverse for instructions)
Based on JSC-STD-123

a. Title of Contract, Project, SOW, etc. Integrated Mission Operations Contract (IMOC)			b. Contract/RFP No. NNJ09HA15C		c. DRL Date/Mod Date Nov 2008		
1. Line item no. 1.	2. DRD Title IMOC Training and Certification Support Plan (1.1-a)	3. Data type: <input checked="" type="checkbox"/> (1) Written approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request	4. Frequency RT	5. As-of-date	6. 1 st subm. date CS	7. Copies a. Type b. Number Other	
8. Distribution <i>(Continue on a blank sheet if needed)</i> BH, DA, DA7, DI, DM, DO, DS, DX		9. Remarks OPR DA7 Contractor's Electronic Format Acceptable.					
1. Line item no. 2.	2. DRD Title IMOC Critical Skill Retention Plan (1.1-b)	3. Data type: <input checked="" type="checkbox"/> (1) Written approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request	4. Frequency RT	5. As-of-date	6. 1 st subm. date CS	7. Copies a. Type b. Number Other	
8. Distribution <i>(Continue on a blank sheet if needed)</i> BH, DA, DA7, DI, DM, DO, DS, DX		9. Remarks OPR DA Contractor's Electronic Format Acceptable.					
1. Line item no. 3.	2. DRD Title IMOC Performance Report (1.1-c)	3. Data type: <input type="checkbox"/> (1) Written approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request	4. Frequency MO	5. As-of-date 31/15	6. 1 st subm. date CS+45 Days	7. Copies a. Type b. Number Other	
8. Distribution <i>(Continue on a blank sheet if needed)</i> BH, DA		9. Remarks -Data as of last day of month report due 15th of following month. -Contractor shall conform to delivery media formats and electronic data formats per DRD 1.5.1, Document and Data Management Plan, or per Contracting Officer approval.					
1. Line item no. 4.	2. DRD Title IMOC Management Plan (1.1-d)	3. Data type: <input checked="" type="checkbox"/> (1) Written approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request	4. Frequency RT	5. As-of-date	6. 1 st subm. date CS	7. Copies a. Type b. Number Other	
8. Distribution <i>(Continue on a blank sheet if needed)</i> BH, DA		9. Remarks OPR DA Contractor's Electronic Format Acceptable.					

JSC DATA REQUIREMENTS LIST (DRL)

(See reverse for instructions)
Based on JSC-STD-123

a. Title of Contract, Project, SOW, etc. Integrated Mission Operations Contract (IMOC)			b. Contract/RFP No. NNJ09HA15C		c. DRL Date/Mod Date Nov 2008		
1. Line item no. 5.	2. DRD Title IMOC Organizational Conflict of Interest Avoidance Plan (1.1-e)	3. Data type: <input checked="" type="checkbox"/> (1) Written approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request	4. Frequency RT	5. As-of-date	6. 1 st subm. date CS	7. Copies a. Type b. Number Other	
8. Distribution <i>(Continue on a blank sheet if needed)</i> BH, DA			9. Remarks OPR BH Contractor's Electronic Format Acceptable.				
1. Line item no. 6.	2. DRD Title IMOC Risk Management Plan (1.2)	3. Data type: <input checked="" type="checkbox"/> (1) Written approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request	4. Frequency RT	5. As-of-date	6. 1 st subm. date CS	7. Copies a. Type b. Number Other	
8. Distribution <i>(Continue on a blank sheet if needed)</i> BH, DA			9. Remarks OPR DA1 Contractor's Electronic Format Acceptable.				
1. Line item no. 7.	2. DRD Title IMOC Contract Work Breakdown Structure (WBS) (1.3-a)	3. Data type: <input checked="" type="checkbox"/> (1) Written approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request	4. Frequency RT	5. As-of-date	6. 1 st subm. date CS	7. Copies a. Type b. Number Other	
8. Distribution <i>(Continue on a blank sheet if needed)</i> BH, DA,DA3			9. Remarks OPR DA1 Contractor's Electronic Format Acceptable.				
1. Line item no. 8.	2. DRD Title IMOC Financial Management Report (NF 533) (1.3-b)	3. Data type: <input checked="" type="checkbox"/> (1) Written approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request	4. Frequency MO	5. As-of-date 31/15	6. 1 st subm. date See DRD	7. Copies a. Type b. Number Print/Other 1	
8. Distribution <i>(Continue on a blank sheet if needed)</i> BH, DA,DA3			9. Remarks -Data as of last day of month report due 15th of following month. - Initial Submission is Type 1, Subsequent Submissions are Type 2. -OPR DA1				

JSC DATA REQUIREMENTS LIST (DRL)

(See reverse for instructions)
Based on JSC-STD-123

a. Title of Contract, Project, SOW, etc. Integrated Mission Operations Contract (IMOC)			b. Contract/RFP No. NNJ09HA15C		c. DRL Date/Mod Date Nov 2008		
1. Line item no. 9.	2. DRD Title IMOC Workforce Report (1.3-c)	3. Data type: <input type="checkbox"/> (1) Written approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request	4. Frequency AN	5. As-of-date Sep 30/ Oct 15	6. 1 st subm. date CS+15 Days	7. Copies a. Type b. Number Other	
8. Distribution <i>(Continue on a blank sheet if needed)</i> BH, DA,DA3		9. Remarks Specific formatting will be mutually agreed upon by the Contractor and NASA.					
1. Line item no. 10.	2. DRD Title IMOC Document and Data Management Plan (1.5.1)	3. Data type: <input checked="" type="checkbox"/> (1) Written approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request	4. Frequency RT	5. As-of-date	6. 1 st subm. date CS	7. Copies a. Type b. Number Other	
8. Distribution <i>(Continue on a blank sheet if needed)</i> BH, DA, DA7, DI, DM, DO, DS, DX		9. Remarks OPR DA1 Contractor's Electronic Format Acceptable.					
1. Line item no. 11.	2. DRD Title IMOC Records Management Plan (1.5.2)	3. Data type: <input checked="" type="checkbox"/> (1) Written approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request	4. Frequency RT	5. As-of-date	6. 1 st subm. date CS	7. Copies a. Type b. Number Other	
8. Distribution <i>(Continue on a blank sheet if needed)</i> BH, DA,DA3		9. Remarks OPR DA1 Contractor's Electronic Format Acceptable.					
1. Line item no. 12.	2. DRD Title IMOC Configuration Management Plan (1.6)	3. Data type: <input checked="" type="checkbox"/> (1) Written approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request	4. Frequency RT	5. As-of-date	6. 1 st subm. date CS	7. Copies a. Type b. Number Other	
8. Distribution <i>(Continue on a blank sheet if needed)</i> BH, DA,DA3		9. Remarks OPR DA1 Contractor's Electronic Format Acceptable.					

JSC DATA REQUIREMENTS LIST (DRL)

(See reverse for instructions)
Based on JSC-STD-123

a. Title of Contract, Project, SOW, etc. Integrated Mission Operations Contract (IMOC)			b. Contract/RFP No. NNJ09HA15C		c. DRL Date/Mod Date Nov 2008	
1. Line item no. 13.	2. DRD Title IMOC Government Property Management Plan (1.7-a)	3. Data type: <input checked="" type="checkbox"/> (1) Written approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request	4. Frequency RT	5. As-of-date	6. 1 st subm. date CS	7. Copies a. Type b. Number or Other
	8. Distribution (<i>Continue on a blank sheet if needed</i>) BH, DA,DA3, JB3		9. Remarks -Contractor format is acceptable -Availability as required by Contracting Officer's letter -OPR JB3			
1. Line item no. 14.	2. DRD Title IMOC Security Management Plan (1.8-a)	3. Data type: <input checked="" type="checkbox"/> (1) Written approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request	4. Frequency RT	5. As-of-date	6. 1 st subm. date CS	7. Copies a. Type b. Number Other
	8. Distribution (<i>Continue on a blank sheet if needed</i>) BH, DA,DA3, JA		9. Remarks OPR DA39			
1. Line item no. 15.	2. DRD Title IMOC Technology Protection Control Plan (1.8-b)	3. Data type: <input checked="" type="checkbox"/> (1) Written approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request	4. Frequency RT	5. As-of-date	6. 1 st subm. date CS	7. Copies a. Type b. Number Other
	8. Distribution (<i>Continue on a blank sheet if needed</i>) BH, DA,DA3, JA		9. Remarks OPR DA39 Contractor's Electronic Format Acceptable.			
1. Line item no. 16.	2. DRD Title IMOC Safety and Health Plan (1.9.1-a)	3. Data type: <input checked="" type="checkbox"/> (1) Written approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request	4. Frequency RT	5. As-of-date	6. 1 st subm. date CS	7. Copies a. Type b. Number Other
	8. Distribution (<i>Continue on a blank sheet if needed</i>) BH, DA,DA3, JA, JE, NA, SD3		9. Remarks OPR NA -Review annually or per CO direction. Contractor's format acceptable but should align w/ elements of DRD.			

JSC DATA REQUIREMENTS LIST (DRL)

(See reverse for instructions)
Based on JSC-STD-123

a. Title of Contract, Project, SOW, etc. Integrated Mission Operations Contract (IMOC)			b. Contract/RFP No. NNJ09HA15C		c. DRL Date/Mod Date Nov 2008	
1. Line item no.	2. DRD Title	3. Data type: <input type="checkbox"/> (1) Written approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request	4. Frequency	5. As-of-date	6. 1 st subm. date	7. Copies a. Type b. Number Other
17.	IMOC Safety Summary Report (1.9.1-b)		MO	31/15	CS+45 Days	
8. Distribution (<i>Continue on a blank sheet if needed</i>) BH, DA, DA3, NS2			9. Remarks OPR NA -Data as of last day of month report due 15th of following month. -Contractor shall conform to delivery media formats and electronic data formats per DRD 1.5.1, Document and Data Management Plan, or per Contracting Officer approval.			
18.	IMOC Monthly Safety and Health Metrics (1.9.1-c)		MO	31/10	CS+40 Days	
8. Distribution (<i>Continue on a blank sheet if needed</i>) BH, DA, DA3, NS2, SD13			9. Remarks OPR NA Data as of last day of month, report due 10th of following month. Send as Excel spreadsheet or in tables compatible with MS Word.			
19.	IMOC Safety and Health Program Self Evaluation (1.9.1-d)		SA	See Remarks	Feb 15, 2009	
8. Distribution (<i>Continue on a blank sheet if needed</i>) BH, DA, DA3, NS2			9. Remarks Jun 30/Aug 15 and Dec 31/Feb 15 Data as of every 6 months, report due 8/15 and 2/15.			
20.	Environmental and Energy Consuming Compliance Reports. (1.9.3)		AN	Sep 30/ Nov15	Nov 15, 2009	
8. Distribution (<i>Continue on a blank sheet if needed</i>) BH, JA			9. Remarks OPR JA Data as of last day of fiscal year, report due 45 days later.			

JSC DATA REQUIREMENTS LIST (DRL)

(See reverse for instructions)
Based on JSC-STD-123

a. Title of Contract, Project, SOW, etc. Integrated Mission Operations Contract (IMOC)			b. Contract/RFP No. NNJ09HA15C		c. DRL Date/Mod Date Nov 2008		
1. Line item no. 21.	2. DRD Title IMOC Quality Management Plan (1.10)	3. Data type: <input checked="" type="checkbox"/> (1) Written approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request	4. Frequency RT	5. As-of-date	6. 1 st subm. date Contract Award + 60 days	7. Copies a. Type b. Number Other	
8. Distribution <i>(Continue on a blank sheet if needed)</i> BH, DA, DA3, NS2			9. Remarks OPR DA Contractor's Electronic Format Acceptable.				
1. Line item no. 22.	2. DRD Title IMOC Flight Rules Production Plan (2.3.2)	3. Data type: <input checked="" type="checkbox"/> (1) Written approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request	4. Frequency RT	5. As-of-date	6. 1 st subm. date CS	7. Copies a. Type b. Number Other	
8. Distribution <i>(Continue on a blank sheet if needed)</i> BH, DA, DA8			9. Remarks OPR DA8 Contractor's Electronic Format Acceptable.				
1. Line item no. 23.	2. DRD Title IMOC Guide for Editorial and Logistical Support to Operations Documentation (2.3.3)	3. Data type: <input checked="" type="checkbox"/> (1) Written approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request	4. Frequency RT	5. As-of-date	6. 1 st subm. date CS	7. Copies a. Type b. Number Other	
8. Distribution <i>(Continue on a blank sheet if needed)</i> BH, DA, DO			9. Remarks OPR DO -Contractor shall conform to media formats and electronic data formats per DRD 1.5.1, Document and Data Mgt Plan, or per CO approval. -Annual review with NASA and updates as agreed to maintain documentation consistency with procedures, products, & delivery requirements.				
1. Line item no. 24.	2. DRD Title IMOC MOD Library Handbook and Glossary (2.3.5)	3. Data type: <input checked="" type="checkbox"/> (1) Written approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request	4. Frequency RT	5. As-of-date	6. 1 st subm. date CS	7. Copies a. Type b. Number Other	
8. Distribution <i>(Continue on a blank sheet if needed)</i> BH, DA, DA3			9. Remarks OPR DA3 -Contractor shall conform to media formats and electronic data formats per DRD 1.5.1, Document and Data Mgt Plan, or per CO approval. -Annual review with NASA and updates as agreed to maintain documentation consistency with procedures, products, & delivery requirements.				

JSC DATA REQUIREMENTS LIST (DRL)

(See reverse for instructions)
Based on JSC-STD-123

Page 7 of 7

a. Title of Contract, Project, SOW, etc. Integrated Mission Operations Contract (IMOC)			b. Contract/RFP No. NNJ09HA15C		c. DRL Date/Mod Date Nov 2008	
1. Line item no. 25.	2. DRD Title IMOC Certification of Flight Readiness (CoFR) Documentation (3.3.4)	3. Data type: <input checked="" type="checkbox"/> (1) Written approval <input type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request	4. Frequency AR	5. As-of-date	6. 1 st subm. date AR	7. Copies a. Type b. Number Other
	8. Distribution (<i>Continue on a blank sheet if needed</i>) BH, DA,DA8		9. Remarks OPR DA -First launch/increment following shuttle retirement -Submission for each MOD Flight Readiness Review (FRR) -Format in accordance with SSP 50108 (Certification of Flight Readiness for Space Station) and JSC 28140 (MOD ISS Certification of Flight Readiness Implementation Plan).			
1. Line item no. 26.	2. DRD Title IMOC Training Quality Reports (4.1)	3. Data type: <input type="checkbox"/> (1) Written approval <input checked="" type="checkbox"/> (2) Mandatory Submittal <input type="checkbox"/> (3) Submitted upon request	4. Frequency MO	5. As-of-date 31/15	6. 1 st subm. date CS+45 Days	7. Copies a. Type b. Number Other
	8. Distribution (<i>Continue on a blank sheet if needed</i>) DA7, DI, DM, DO, DS, DX		9. Remarks OPR DA7 -Data as of last day of month, due 15th of following month and available to support all Process Integrity Reviews. Records and data accessible 10 days after completion of training. A process will be set up that meets NASA and contractor needs in order to sort and store these records.			

JSC Form 2323 (Rev May 1, 1991) (MS Word August 1995)

ATTACHMENT J-7
Data Requirement Descriptions

ATTACHMENT J-7

Data Requirement Descriptions

<p>1. DRD Title</p> <p>IMOC Training and Certification Support Plan</p>	<p>2. Date of current version</p> <p style="text-align: center;">11/08</p>	<p>3. DRL Line Item No.</p> <p style="text-align: center;">1.1-a</p>	<p>RFP/Contract No. (Procurement completes)</p> <p style="text-align: center;">NNJ09HA15C</p>
<p>4. Use <i>(Define need for, intended use of, and/or anticipated results of data)</i></p> <p>The IMOC Training and Certification Support Plan defines the IMOC management and personnel processes to manage the progress of IMOC personnel thru the MOD training process</p>		<p>5. DRD Category: <i>(check one)</i></p> <p style="text-align: center;"> <input type="checkbox"/> Technical <input checked="" type="checkbox"/> Administrative <input type="checkbox"/> SR&QA </p>	
<p>6. References <i>(Optional)</i></p> <p>MOD Space Flight Personnel Certification Plan (DA-WI-16), MOD discipline specific certification Requirements, Appointment of Personnel To/From NASA (NPR 3300.1)</p>	<p>7. Interrelationships <i>(e.g., with other DRDs) (Optional)</i></p> <p>IMOC Management Plan</p>		
<p>8. Preparation Information <i>(Include complete instructions for document preparation)</i></p>			

SCOPE:

The Contractor shall develop a management plan to document contractor managers' role for moving personnel through MOD flight controller, instructor and analyst certification processes.

CONTENT:

The plan shall address the following requirements at a minimum:

1. Integration with MOD processes and priorities.
2. The contractor management process for resolving the lack of certification progress for contractor personnel in flight controller, instructor, and analyst positions.
3. The Contractor shall implement a probation period for new employees with a duration sufficient for initial training.
4. Personnel shall meet MOD certification performance expectations during the first 12 months of starting training for a position requiring certification in order to continue toward certification in the position.
5. Qualification guidelines for personnel to be assigned to a certifiable position in MOD. The following shall be included in the qualification guidelines as a minimum:
 - a. Degree requirements. Typical qualifications are the successful completion of a standard professional curriculum at an accredited college or university leading to a bachelor's degree in physical science discipline: (such as physics, mathematics), engineering disciplines (such as aerospace, aeronautical, mechanical, electrical, engineering technology), and computer science disciplines.
 - b. GPA requirements
 - c. Any exceptions processes (such as using equivalent work experience as a basis for qualification other than college or university degrees).

NNJ09HA15C
Integrated Mission Operations Contract

1. DRD Title IMOC Critical Skills Retention Plan	2. Date of current version 11/08	3. DRL Line Item No. 1.1-b	RFP/Contract No. (Procurement completes) NNJ09HA15C
4. Use <i>(Define need for, intended use of, and/or anticipated results of data)</i> The IMOC Critical Skills Retention Plan describes the contractor management and processes to mitigate attrition of MOD and FCOD personnel with critical skills.		5. DRD Category: <i>(check one)</i> <input type="checkbox"/> Technical <input checked="" type="checkbox"/> Administrative <input type="checkbox"/> SR&QA	
6. References <i>(Optional)</i> MOD Space Flight Personnel Certification Plan (DA-WI-16), MOD discipline specific certification Requirements	7. Interrelationships <i>(e.g., with other DRDs) (Optional)</i> IMOC Management Plan , IMOC Performance Measurement System (PMS) Reports (DRD 1.1.4.1)		
8. Preparation Information <i>(Include complete instructions for document preparation)</i>			

SCOPE:

The Contractor shall develop a management plan that shows proactive management of critical skills retention and control of attrition. Due to the considerable investment in training and certifying MOD and FCOD personnel, organizational costs savings can be directly correlated to attrition reductions. The contractor shall define the critical skilled positions in the IMOC Critical Skill Retention Plan.

CONTENT:

The plan shall address the following requirements at a minimum:

1. Management strategies to provide retention capability for contractor personnel to remain in certified positions.
2. Management strategies to provide retention capability for contractor personnel in certified shuttle positions who will transition to Cx development tasks and Cx first mission preparation.
3. Management strategies to motivate contractor personnel to achieve higher level certifications.
4. Reporting of the metrics that account for the following :
 - a. Attrition of certified and critical skilled contractor personnel
 - b. Attrition of certified contractor personnel not moving to another MOD certifiable position
 - c. Experience level of contractor personnel by certified position (i.e. average months since certification)
 - d. Clear description of how individuals with multiple certifications are counted (i.e. FCR and MPSR, Operator and Specialist, Instructor and Flight Controller, multiple systems)

The Contractor shall report metrics at least quarterly as part of the Performance Measurement System Reports. Subcontractor certified personnel attrition shall be included in all metrics reporting.

NNJ09HA15C
Integrated Mission Operations Contract

1. DRD Title IMOC Performance Report	2. Date of current version 11/08	3. DRL Line Item No. 1.1-c	RFP/Contract No. (Procurement completes) NNJ09HA15C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) To provide technical, cost and schedule performance summary and assessment based on a performance measurement system for all operations activities (i.e., non-development/non-production activities).		5. DRD Category: (<i>check one</i>) <input type="checkbox"/> Technical <input checked="" type="checkbox"/> Administrative <input type="checkbox"/> SR&QA	
6. References (<i>Optional</i>) NPD 9501.1, NASA Contractor Financial Management Reporting System	7. Interrelationships (<i>e.g., with other DRDs</i>) (<i>Optional</i>) IMOC Management Plan, IMOC Critical Skill Retention Plan, IMOC Training and Certification Plan, IMOC OCI Mitigation Plan. Consistent with ongoing submission schedule from the SPOC All data shall be reconcilable between the NASA Forms 533M & 533Q (reference DRD 1.3-b) and the Safety Summary Report (reference DRD 1.9.1-b)		
8. Preparation Information (<i>Include complete instructions for document preparation</i>)			

Scope - The report shall provide technical, cost, and schedule performance data and assessments and shall serve as the basis for contractor communication with NASA concerning performance management.

Content –

General: The PMS data and baseline updates shall be reported by WBS as agreed between the contractor and NASA. Changes or additions shall be by mutual agreement between the contractor and NASA. Provisions shall be made to separately identify, account for, and forecast resource requirements for special projects. The following report packages shall be provided:

- a) IMOC Overview Status - Provide an overall status in brief narrative form, indicating the progress on all major items. Include summary status of technical, schedule, and cost performance. Identify any significant problems and corrective actions.
- b) Performance Metrics Packages - Provide metrics with explanations as agreed between the contractor and the NASA TMRs that reflect the key areas of concern for performance.
 - 1. Metrics will address safety, quality, work content, schedule, efficiency, cost, retention, and other areas, as appropriate.
 - 2. Metrics will facilitate subsequent government analysis by including the supporting data (i.e. Excel spreadsheets)
 - 3. Variance analysis for each metric for deviations beyond established thresholds or expected trends shall be provided. In addition, corrective actions will be enumerated for unfavorable variances beyond established thresholds or expected trends.

Performance measurement reporting is also required on subcontracts that, based on risk, schedule criticality, or dollar value, have the potential to impact the successful fulfillment of this contract.

A presentation of metrics shall be provided. The metrics to be presented include:

Safety Summary

This section shall summarize any close calls, mishaps, incidents, and significant safety activities. Safety metrics shall be provided. The details in the Safety Summary Report (reference DRD 1.9.1-b) are not intended to be duplicated here, but this is a high level summary for MOD Management.

Technical Performance of Contractor Managed Activities

This section shall detail how the Contractor performed for the period, including major contractor accomplishments. This shall also include a description of IMOC process discrepancies and anomalies, which affected, or may affect completion of scheduled activities or delivery of products.

IMOC Personnel Retention Performance for NASA Managed Activities

This section shall detail the changes in IMOC personnel levels, with specific accounting for loss of personnel already certified by NASA to perform plan, train, and fly functions. This section shall identify these changes by MOD division or office. The Contractor shall report the management steps taken to reduce attrition of NASA certified IMOC personnel.

IMOC Personnel Certification Progress for NASA Certified Positions

The Contractor shall provide in this section the details of the progress toward certification of contractor personnel in training for NASA certified positions. The Contractor shall provide summary metrics for all positions, and specific references to critical progress dependencies for any position whose certification manning level readiness has been identified by NASA as yellow or red in the MOD Process Integrity Management Review (PIMR).

Contract Changes

This section shall provide status for Contract Change Orders and Task Orders.

Cost Variance

A variance report shall contain a description of any variance from current FY contract plan as specified by the TMR with a description of cause, impact, and recovery plan. The details in the IMOC Financial Management Report (533) (reference DRD 1.3-b) are not intended to be duplicated here, but this is a high level summary for MOD Management.

Proposals for MOD Improvements to Achieving the Budget Reduction Goals

This section shall include the contractor's suggestions and estimated costs for NASA process or architectural changes that, if implemented, would facilitate achieving MOD's overall cost reduction goals.

Issues and Concerns

This section shall provide a description of the Contractor's unresolved issues and concerns that have the potential to affect contract performance. These issues would include the progress of the contractor's resolution of weaknesses and areas of emphasis identified in the IMOC performance evaluation, and any new issues that are identified by the contractor or have been identified by NASA as having the potential for becoming areas of emphasis or weaknesses in the contractor's evaluation.

Ad Hoc Review Topics

The Contractor shall provide in this report, on an as needed basis, status reporting and metrics on the remaining subject areas in the statement of work. These subject areas include security management, technology protection, mitigation of organizational conflict of interest and development projects.

REMARKS: The content of the management presentation may be adjusted by mutual agreement of the

office of primary responsibility and the contractor. In addition to the mutually agreed upon metrics provided routinely by this DRD, NASA will have access to lower level contractor metrics for audits and insight.

1. DRD Title IMOC Management Plan	2. Date of current version 11/08	3. DRL Line Item No. 1.1-d	RFP/Contract No. (Procurement completes) NNJ09HA15C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) To document the Contractor management plan. Serves as the top level execution plan.		5. DRD Category: (<i>check one</i>) <input type="checkbox"/> Technical <input checked="" type="checkbox"/> Administrative <input type="checkbox"/> SR&QA	
6. References (<i>Optional</i>) NPR 7120.5		7. Interrelationships (<i>e.g., with other DRDs</i>) (<i>Optional</i>) IMOC Risk Management Plan, Space Program Operations Contract	

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

SCOPE:

This plan is the top level management execution plan for IMOC.

CONTENT:

The Management Plan shall:

- a. Describe the organizational structure, including a chart depicting the organization.
- b. Describe the communication channels, lines of authority (including the line of succession if Contract Manager is unavailable), reporting relationships, and responsibilities of all organizational elements. Include in this discussion any subcontractors, team members, or joint venture partners, to illustrate their relationships within the structure or between the organizational elements and any other subcontractors, team members, or joint venture partners. Describe the reporting responsibilities of the Contract Manager to corporate management and the relationship between the Contract Manager and the prime's corporate management as well as the management of any subcontractors, team members, or joint venture partners.
- c. Describe the organizational elements within the overall organization.
- d. Describe how the contractor's technical support personnel (individuals and line managers) will operate in conjunction with their NASA line management and NASA contractor counterparts, including NASA technical team leaders (i.e. Flight Director Office, Spaceflight Training Management Office, MOD Exploration Project Office, Management Integration Office, and Technical Integration and Production Control Office).
- e. Describe the Contractor's IMOC management relationships to the SPOC MOD contract management support. This will detail the method(s) by which resource sharing across all contract support elements will be accomplished.
- f. Describe the IMOC management transition from the initial management structure working synergistically with the SPOC tasks, to the management structure to be used for synergistic multi-program MOD support.
- g. Describe the management policies, procedures, and techniques the prime and any subcontractors, team members, or joint venture partners have to maintain a single coordinated management point of contact to the Government.
- h. Describe how the management policies, procedures, and techniques are monitored to ensure their effectiveness and facilitate continuous improvement.

- i. Describe how the contractor will ensure the Government will receive the services for which it is contracting by providing the method, level and frequency of internal surveillance. Describe the methods of identifying deficiencies and plans for correcting deficiencies.
- j. Describe any corporate monitoring, oversight, or assistance (e.g. external dependences) the contractor, subcontractors and joint venture partners will use to compliment performance by the IMOC contractor and subcontractor staff.
- k. Describe the interrelationships of all the Contractor delivered plans.

NNJ09HA15C
Integrated Mission Operations Contract

1. DRD Title IMOC Organizational Conflict of Interest (OCI) Avoidance Plan	2. Date of current version 11/08	3. DRL Line Item No. 1.1-e	RFP/Contract No. (Procurement completes) NNJ09HA15C						
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) To document the contractor's implementation plan for avoiding and mitigating organizational conflicts of interest		5. DRD Category: (<i>check one</i>) <table style="width: 100%; border: none;"> <tr> <td style="text-align: center; width: 20px;"><input checked="" type="checkbox"/></td> <td style="padding-left: 20px;">Technical</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="padding-left: 20px;">Administrative</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="padding-left: 20px;">SR&QA</td> </tr> </table>		<input checked="" type="checkbox"/>	Technical	<input type="checkbox"/>	Administrative	<input type="checkbox"/>	SR&QA
<input checked="" type="checkbox"/>	Technical								
<input type="checkbox"/>	Administrative								
<input type="checkbox"/>	SR&QA								
6. References (<i>Optional</i>) b. Mission Operations Directorate (MOD) Government OCI Assessment of IMOC b. FAR Subpart 9.5, Organizational and Consultant Conflicts of Interest	7. Interrelationships (<i>e.g., with other DRDs</i>) (<i>Optional</i>) IMOC Management Plan Note: This DRD may be initially satisfied by the corresponding SPOC deliverable. If the SPOC deliverable is utilized, another deliverable that meets all the requirements in this DRD will be required after SPOC, October 1, 2010.								
8. Preparation Information (<i>Include complete instructions for document preparation</i>)									

Scope - The IMOC OCI Avoidance Plan shall describe the contractor's management approach and planned implementation methods for avoiding, neutralizing, or mitigating the occurrence of an OCI.

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

The IMOC OCI Avoidance Plan shall identify the threat of an OCI, assess the likelihood of it occurring, evaluate the impact, and institute mitigation measures to both prevent the occurrence and minimize the impact. Mitigation measures shall comply with and support the MOD Government OCI Assessment of IMOC

The IMOC OCI Avoidance Plan shall document the general procedures that the Contractor will use to respond to OCI issues that are identified. All procedures that the Contractor uses to respond to an OCI issue shall comply with and support the MOD Government OCI Assessment of IMOC

The IMOC OCI Avoidance Plan shall include the following information:

- i. Purpose – A summary of the Contractor's rationale for instituting and applying the IMOC OCI Avoidance plan.
- ii. Update Criteria – A description of the criteria and process for determining when an update to the plan is required.
- iii. OCI Assessment Methodology – A summary of the general methodology used to avoid, neutralize, and mitigate OCI issues.
- iv. OCI Risks – A description of potential OCI risks, due to the Contractor's relationships or potential relationships with the Government, other companies, and other contracts. The description shall characterize the risk and mitigation measures to avoid, neutralize, or mitigate each OCI threat.
- v. Personnel Clearance Procedures – A description of the procedures the Contractor will use if needed to identify and partition Contractor personnel requiring access or participation in activities that would otherwise create an OCI issue.

- vi. OCI Response Procedures – A summary of the steps that the Contractor will take when an OCI has been identified or when circumstances have changed such that an OCI issue is probable.

<p>1. DRD Title</p> <p>IMOC Risk Management Plan</p>	<p>2. Date of current version</p> <p style="text-align: center;">11/08</p>	<p>3. DRL Line Item No.</p> <p style="text-align: center;">1.2</p>	<p>RFP/Contract No. (Procurement completes)</p> <p style="text-align: center;">NNJ09HA15C</p>
<p>4. Use (Define need for, intended use of, and/or anticipated results of data)</p> <p>To describe the Contractor's implementation approach for performing and reporting risk management, in conformance with the processes that are defined by the Government provided guidelines NPR 7120.5, latest version.</p>		<p>5. DRD Category: (check one)</p> <p><input checked="" type="checkbox"/> Technical</p> <p><input checked="" type="checkbox"/> Administrative</p> <p><input type="checkbox"/> SR&QA</p>	
<p>6. References (Optional)</p> <p>NPG 7120.5, NASA Program and Project Management Processes and Requirements (Section 4.3)</p> <p>NPR 8000.4, Risk Management Procedural Requirements</p>	<p>7. Interrelationships (e.g., with other DRDs) (Optional)</p> <p>IMOC Management Plan</p> <p>Note: This DRD may be initially satisfied by the corresponding SPOC deliverable. If the SPOC deliverable is utilized, another deliverable that meets all the requirements in this DRD will be required after SPOC, October 1, 2010.</p>		
<p>8. Preparation Information (Include complete instructions for document preparation)</p>			

Scope: The IMOC Risk Management Plan defines the Contractor's method to accomplish proactive end-to-end risk analysis management and abatement, throughout the contract duration. Risk management includes risk: identification, analysis, handling, mitigation, tracking, controlling, and risk communication.

Content:

The IMOC Risk Management Plan documents the process that the Contractor will follow to manage risk throughout the duration of the contract and provide government insight to risk management. "Risk" refers to anything that can prevent meeting the contract objectives. All forms of risk shall be managed. These include technical, managerial, supportability, cost, and schedule risks. The Contractor shall ensure that risks and hazards with potential safety, mission success, technical, supportability, cost, and schedule impacts are:

- a. Identified and incorporated into the MOD Risk Management process.
- b. Analyzed to characterize the potential risk.
- c. Communicated to all affected stakeholders.
- d. Effectively mitigated.

The IMOC Risk Management Plan shall provide descriptions of the processes to provide management at all levels with 1) a disciplined system for early identification of technical uncertainties, 2) a disciplined assessment of current project status, and 3) key indicators of mission success. The plan shall describe the basis for taking action to control risk and for measuring the effectiveness of that action.

The plan shall as a minimum cover:

- a. Risk identification – The process to determine and define all risks.
- b. Risk analysis – The process to convert risk data into decision-making information. This process includes estimating the probability, impact and time frame of the risks, eliminating duplicates and grouping similar risks, and prioritizing them according to consequences.
- c. Risk planning – The process to develop mitigation options and decide what to do with the risks.

- d. Risk tracking – The process to acquire, compile and report risk status data, including risk indicators and mitigation actions. Appropriate risk metrics shall be identified so that the Government can evaluate the quality of the risk management.
- e. Risk control – The process covering decisions to re-plan mitigation, close risks, invoke contingency plans or continue to track risks. The plan shall define responsibilities, typical milestones/reviews, and describe the key risk control activities.
- f. Communications and documentation – Present in all the above processes, this is the means by which the output of the processes is documented and communicated to all team members. Specifically, the plan shall specify how the risks (or lack of risks) are documented, communicated, and reported to the Contractor and NASA management. Risk communication shall occur as needed through working level interfaces to ensure that element/project managers routinely consider risks in the day-to-day planning and decision making processes.

For contractor proposed process changes, the Contractor shall provide a risk assessment and corresponding issues to MOD management.

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1. DRD Title IMOC Contract Work Breakdown Structure (WBS)	2. Date of current version 11/08	3. DRL Line Item No. 1.3-a	RFP/Contract No. (Procurement completes) NNJ09HA15C
4. Use <i>(Define need for, intended use of, and/or anticipated results of data)</i> To document the Contractor organization of the work to be performed.		5. DRD Category: <i>(check one)</i> <input type="checkbox"/> Technical <input checked="" type="checkbox"/> Administrative <input type="checkbox"/> SR&QA	
6. References <i>(Optional)</i>	7. Interrelationships <i>(e.g., with other DRDs) (Optional)</i> IMOC Management Plan		
8. Preparation Information <i>(Include complete instructions for document preparation)</i>			

The Contractor shall develop a work breakdown structure (WBS) to describe all of the activities that will be conducted under the contract. The work breakdown structure shall divide the total work and products of the contract into major groups of activities, then subdivide these groups into tasks, then subdivide these tasks into subtasks, and so on. The lowest level of the subdivided work must be small enough to permit adequate control and visibility without creating an unwieldy administration burden. It is not necessary to extend the WBS to the same level for each activity.

The Contract WBS shall:

- a. Serve as the framework for contract planning, budgeting, cost reporting, and schedule status to the NASA.
- b. Identify major elements of subcontracted work.
- c. Describe the functional task structure, including a chart depicting the organization of the functions.
- d. Identify the IMOC tasks, and products, and their corresponding IMOC SOW elements

The Contract WBS shall include a dictionary that contains a text description of the elements of the Contract WBS elements.

1. DRD Title IMOC Financial Management Report (NF 533)	Date of current version 11/08	DRL Line Item No. 1.3-b	RFP/Contract No. (Procurement completes) NNJ09HA15C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) The NASA Form 533 (NF533) reports provide data necessary for the following: <div style="margin-left: 40px;"> <p>Projecting costs and hours to ensure that dollar and labor resources realistically support project and program schedules.</p> <p>Evaluating Contractors' actual cost and fee data in relation to negotiated contract value, estimated costs, and budget forecast data.</p> <p>Planning, monitoring, and controlling project and program resources.</p> <p>Accruing cost in NASA's accounting system, providing program and functional management information, and resulting in liabilities reflected on the financial statements.</p> </div> <p>Cost is a financial measurement of resources used in accomplishing a specified purpose, such as performing a service, carrying out an activity, acquiring an asset, or completing a unit of work or project. NASA Contractor Financial Management Reporting, NASA Procedures and Guidelines (NPR) 9501.2D, or its most current revision, identifies the cost reporting requirements for a contract..</p>		5. DRD Category: (<i>check one</i>) <div style="margin-left: 20px;"> <input type="checkbox"/> Technical <input checked="" type="checkbox"/> Administrative <input type="checkbox"/> SR&QA </div>	
6. References (<i>Optional</i>) NFS 1852.242-73, NASA Contractor Financial Management Reporting NPD 9501.1H, NASA Contractor Financial Management Reporting System	7. Interrelationships (<i>e.g., with other DRDs</i>) (<i>Optional</i>) IMOC Management Plan		

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

SCOPE:

Cost is a financial measurement of resources used in accomplishing a specified purpose, such as performing a service, carrying out an activity, acquiring an asset, or completing a unit of work or project. NASA Contractor Financial Management Reporting, NASA Procedures and Guidelines (NPR) 9501.2D, or its most current revision, identifies the cost reporting requirements for a contract.

CONTENT:

- a. Data Type: Initial Baseline Reports – 1, NASA Forms 533 M/Q – 2
- b. NASA is required by law to maintain accrual accounting, which requires cost to be reported in the period in which benefits are received, without regard to time of payment. Examples of accrual accounting for common cost elements reported on the NF533 follow:
 - i. *Labor*: Reported to NASA as hours are incurred.
 - ii. *Equipment & Materials* (commercial off the shelf): Generally reported to NASA when received and accepted by the Contractor.
 - iii. *Manufactured Equipment*: Defined as any equipment that is produced to specific requirements that make it useless to anyone else without rework. Cost should be reported to NASA as the equipment is being manufactured. The straight-line method for estimating accrued costs or the use of supplemental information obtained from the vendor are acceptable methods used to calculate the cost accrual amount.
 - iv. *Leases*: Reported to NASA using a proration over the life of the lease.
 - v. *Travel*: Reported to NASA as costs are incurred.
 - vi. *Subcontracts*: Actual and estimated costs reported by prime contractors shall include subcontractors' incurred costs for the same accounting period. Where subcontract costs are

- material, they should be separately identified on NF533 reports. The prime Contractor shall include in the total cost of each subdivision of work the accrued cost (including fee, if any) of related subcontractor effort. Subcontractors should, therefore, be required to report cost to the prime contractor, using the accrual method of accounting. If the G&A and fee reported by a subcontractor are at the total subcontractor level, these costs must be allocated to specific subdivisions of work. Data submitted by the subcontractor should be structured similar to the prime contractor's NF533 to enable the prime contractor to properly report to NASA. For Firm Fixed Price subcontracts with a contract value greater than \$500,000, the prime contractor is required to document the methodology used to generate the sub-contractor costs reported and provide this information to the Contracting Officer and Center Deputy Chief Financial Officer (Finance).
- vii. *Unfilled Orders*: Reported as the difference between the cumulative cost incurred to date and amounts obligated to suppliers and subcontractors.
 - viii. *Fee*: Should be accrued as earned using a consistent and auditable method to determine the amount. For example: an acceptable method would be to use historical data to determine the amount to accrue each month. Fee should be reported on the NF533 following the "Total Cost" line. Award fee must be reported by the following categories: Base Fee, Fee Earned, Interim Fee, Provisional Fee, Potential Additional Fee, and Total Fee. If any of the above fee categories do not pertain, they should not be included in the NF533.
 - ix. *Prompt Payment Discounts*: Cumulative cost reported to NASA should be the full-incurred cost. The prompt payment discount amount taken should be reported as a separate line item on the NF533 below the cumulative cost amounts for the contract.
- c. The NF533 reports are the official cost documents used at NASA for cost type, price determination, and fixed price incentive contracts. The data contained in the reports must be auditable using Generally Accepted Accounting Principles. Supplemental cost reports submitted in addition to the NF533 must be reconcilable to the NF533.
 - d. Uncompensated overtime hours worked should be reported on NF533 reports as a separate line item or in the footnotes.
 - e. An initial NF533 report is required in the NF533Q format to be used as a baseline for the life of the contract. The initial (baseline) NF533Q report shall be submitted by the Contractor within 30 days after authorization to proceed has been granted. The initial report shall reflect the original contract value detailed by negotiated reporting categories and shall be the original contract baseline plan. In addition to the initial (baseline) report, monthly NF533 reporting shall begin no later than 30 days after the incurrence of cost.
 - f. Column 7b (planned cost incurred/hours worked for the month) and 7d (cumulative planned cost incurred/ hours worked) of the NF533M represent the negotiated baseline plan for the contract. There may not be a relationship between the estimates provided in columns 8 of the NF533M to columns 7b and 7d. Columns 7b and 7d represent the legally binding contract negotiated baseline plan plus all authorized changes.
 - g. Short and long-term cost estimates, which include all data entered in columns 8 and 9a on the NF533M and NF533Q reports, shall be based on the most current and reliable information available.
 - h. Prior period cost adjustments should be reported in column 7a and 7c of NF533M and column 7a of the NF533Q with a footnote discussing the reasons for and amounts of the adjustments.
 - i. Monthly NF533 reporting is no longer required once the contract is physically complete, provided the final cost report includes actual cost only (no estimates or forecasts). The Contractor must continue to submit monthly NF533 reports as long as estimates for the following period are included. If the final cost of a contract changes after the submission of the "final" contractor cost report, the Contractor must submit a revised NF533 report in the month the cost change is recognized.
 - j. *Format*: (See attached) The reports shall be prepared in accordance with NPR 9501.1H or its most current revision, NMI 9501.1, and NFS 1852.242-73 and as defined in the statement of work and by contracting officer's letter. All reports shall be provided electronically and in hard copy form. The Contractor shall report cost and hours via electronic submission or diskette and shall be compatible with Microsoft Excel. A hardcopy of the data shall accompany either method and shall be signed by

the same person who signs the hard copy NF533. The totals of the submitted data shall agree with the NF533 totals.

i. Format Adjustments:

1. Information on all NF 533M and Q pages are reported thru "Adjusted Total: Cost Plus Fee".
2. Addition of Government Fiscal Year (GFY) information:
 - a. GFY Cum-to-Date,
 - b. GFY EAC,
 - c. Balance of GFY.
3. NF 533 reports header section will contain the following information with title:
 - a. Accounting Calendar Period (i.e. July 20xx),
 - b. Accounting Calendar Period start and end dates (i.e. mm/dd/yy – mm/dd/yy),
 - c. Operating Days and Effective Hours (i.e. 19 days / 133 hrs).

ii. Electronic NF533 Requirement: In addition to submitting the NF533M or NF533Q in a hardcopy format, the Contractor, upon request, shall submit the NF533 electronically by the same due date as the hardcopy. The data shall be submitted via email using the Government prescribed flat file format (see attached Agency Defined File Format for an example of the layout details) and shall include the following header information from the hardcopy:

Data Element	Description
Contract Number	NASA assigned contract number
Modification Number	Latest definitive Modification Number
Accrual Date	Date the data was generated for
Report Period End Date	Period ending date of the NF533
Operating Days	Number of operating days for the current NF533
Date Received/Submitted	Date the report is submitted
CCR Format	Monthly (NF533M) or Quarterly (NF533Q)
Cost Unit of Measure	Unit of measure used to report cost on the NF533 report
HR/WYE Unit of Measure	Unit of measure used to report Hours/Work Year Equivalent (WYEs) on the NF533 report
Authorized Contractor Representative	Name of Contractor Approving Officer
Authorized Contractor Representative Date Signed	Date the NF533 is approved and signed by the authorized Contractor Representative
Monthly Grand Total Cost Incurred (7a)	Grand Total Actual Monthly cost for the prior month (column 7a on the NF533)
Monthly Grand Total HR/WYE (7a)	Grand Total Actual monthly hours/WYEs for the prior month (column 7a on the NF533)
Monthly Grand Total Cost Planned (7b)	Prior month planned cost (column 7b on the NF533)
Grand Total Cost Incurred ITD (7c)	Grand total contract cost from Inception to Date (ITD) (column 7c on the NF533)
Grand Total Planned Cost (7d)	Grand total planned contract cost (column 7d on the NF533)
Grand Total Estimated Cost (8a)	Grand total current month cost estimate (column 8a on the NF533)
Grand Total Estimated HR/WYE (8a)	Grand total current month HR/WYE estimate (column 8a on the NF533)

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Grand Total Next Month Estimated Cost (8b)	Grand total next month cost estimate (column 8b on the NF533)
Grand Total Balance of Contract (8c)	Contract Balance for the remaining estimate to complete (column 8c on the NF533)
Grand Total Contractor Estimate (9a)	Contractor estimate to complete entire scope of contract (column 9a on the NF533)
Grand Total Contract Value (9b)	Contractor distribution of contract value by the reporting categories (column 9b on the NF533)
Grand Total Unfilled Orders Outstanding (10)	Unfilled order outstanding at the end of the reporting period (column 10 on the NF533)

The flat file will also contain detail information for each Reporting Category (RC). A Reporting Category correlates to a task order, delivery order, or Work Breakdown Structure (WBS) and is the level at which cost is reported. Each RC can have Sub-Reporting Category line items (detailed cost elements) that add up to a RC. **The Contractor is required to coordinate with the NASA Resource Analyst assigned to the contract in order to establish and maintain the Reporting Categories the Contractor shall use to comply with this data requirement.** The chart below describes the data elements to be included in this section of the flat file (see attached Agency Defined File Format for specific layout details).

Data Element Name	Description
Reporting Category (RC)	Task, Delivery Order, Work Breakdown Structure
Cost Incurred for Month (7a)	Prior month actual cost incurred for each RC (column 7a on NF533)
HR/WYE Incurred for Month (7a)	Prior month actual HR/WYE incurred for each RC (column 7a on NF533)
Contract prior month planned cost (7b)	Planned cost for prior month for each RC (column 7b on NF533)
Contract ITD cost (7c)	Contract ITD cost for each RC (column 7c on NF533)
Contract planned ITD cost (7d)	Contract planned ITD cost for each RC (column 7d on NF533)
Current month estimated cost (8a)	Cost estimate for the current month for each RC (column 8a on NF533)
Current month estimated HR/WYE (8a)	HR/WYE estimate for the current month for each RC (column 8a on NF533)
Next month estimated cost (8b)	Estimated cost for next month for each RC (column 8b on NF533)
Balance of Contract (8c)	Balance of contract for the remaining estimate to complete for each RC (column 8c on NF533)
Contractor Estimate (9a)	Contractor estimate for the total estimate to complete entire scope of contract for each RC (column 9a on NF533)
Contract Value (9b)	Contract value based upon contract modifications for each RC (column 9b on NF533)
Unfilled orders outstanding (10)	Unfilled orders outstanding at the end of the reporting period for each RC (column 10 on NF533)
Reporting Category level	Used by NASA's accounting system to determine the RC level
Reporting Category Identifier	Identifies if the RC is a actual Reporting Category or a Sub-Reporting

The flat file shall be saved as a text file with no extension (do not include .txt after the file name) and named in strict accordance with the specific format described in the attached Agency Defined File Format document.

File names must be provided in a specific format. Each file name will begin with the SAP 2 charter center abbreviation listed below. The contract number and date will be included in the file name as well.
Example: JOCFPS001_NAS00-0001_yyyy_mm_dd

SAP 2 Charter Center Abbreviations:	
Headquarters	HQ
Ames	AM
Dryden	DR
Glenn	GL
Goddard	GO
Johnson	JO
Kennedy	KE
Langley	LA
Marshall	MA
Stennis	ST

Example File Format

CCR Extension Data Element	Description	Contractor Initial Data Mapping	NF 533 Required/Optional	OTHER CCR Required/Optional	Field Name	St Pos	EndPos	Len	Formt
HEADER:									
Record Type	Used by eGate to determine record type	'HD' for Header	Required	Required	RECORD_TYPE	1	2	2	CHAR
Contract Number	Contract Number (1b)	Header field—submitted with CONTRACTOR data or defaulted by interface or extension	Required	Required	CONTRACT_NUMBER	3	12	10	CHAR
	Latest definitive Modification Number(CR 8197)				MOD_NUMBER	13	18	6	CHAR
Accrual Date	Date the data was generated for. Used by SAP as part of Oracle table	Accrual Date. MM01YYYY, where MM is the Accrual Month and	Required	Required	ACCRUAL_DATE	19	26	8	DATE MM01YYYY

CCR Extension Data Element	Description	Contractor Initial Data Mapping	NF 533 Required/Optional	OTHER CCR Required/Optional	Field Name	St Pos	EndPos	Len	Format
	key	YYYY is the fiscal year							
Report Period End Date	Report Period End Date is a date(2)	Header field— submitted with CONTRACTOR data or defaulted by interface or extension	Required	Required	REP_END_DATE	27	34	8	DATE
Operating Days	Operating days(2).	Header field— submitted with CONTRACTOR data	Required	Optional unless Required by contract	OPER_DAYS	35	40	6	NUMERIC
Date Received	Date Received (1d)	System Date upon which the cost data is loaded into the CCR Extension	Required	Required	DATE_REC	41	48	8	DATE
CCR Format	'M' for Monthly and 'Q' for Quarterly (SIR2047)	Submitted with CONTRACTOR data	Required	Required	CCR_FORMAT	49	49	1	CHAR

CCR Extension Data Element	Description	Contractor Initial Data Mapping	NF 533 Required/Optional	OTHER CCR Required/Optional	Field Name	St Pos	EndPos	Len	Fmt
Cost Unit of Measure	Cost Unit of Measure (SIR2047)	Submitted with CONTRACTOR data	Required	Required	COST_UOM	50	51	2	CHAR
HR/WYE Unit of Measure	Hour/Work-Year-Equivalent Unit of Measure (SIR2047)	Submitted with CONTRACTOR data	Required	Required	HR_WYE_UOM	52	53	2	CHAR
	Authorized Contractor Representative – Name of Contractor Approving Officer (CR 8197)				AUTH_SIGNATURE	54	78	25	CHAR
	Authorized Contractor Representative Date Signed – Date CCR is approved/signed by authorized contractor representati				AUTH_SIGNATURE_DATE	79	86	8	DATE MMDDYYYY

CCR Extension Data Element	Description	Contractor Initial Data Mapping	NF 533 Required/Optional	OTHER CCR Required/Optional	Field Name	St Pos	EndPos	Len	Fmt
	ve(CR 8197)								
Grand Total Cost Incurred Month (7a)	The Grand Total Contract Prior Month Actual Dollars Column 7a reports actual costs for the prior month.	Submitted with CONTRACTOR data	Required.	Optional. Only required if lower detailed line item data is submitted in monthly batch file.	GT_COST_INCUR_MONTH	87	99	13	CURRENCY (2)
Grand Total HR/WYE (7a)	The Grand Total Contract Prior Month Actual Hours Column 7a reports actual HR or WYE for the prior month.	Submitted with CONTRACTOR data	Required if detailed line item data is submitted in monthly batch file.	Required if detailed line item data is submitted in monthly batch file.	GT_HRWYE_PRIOR_MONTH	100	109	10	NUMERIC(1)
	The Grand Total Contract Prior Month Planned				GT_COST_PLANNED_MONTH	110	122	13	CURRENCY (2)

CCR Extension Data Element	Description	Contractor Initial Data Mapping	NF 533 Required/Optional	OTHER CCR Required/Optional	Field Name	St Pos	EndPos	Len	Formt
	Dollars Column (7b) reports planned costs for the prior month. (CR8197)								
Grand Total Cost Incurred ITD (7c)	The Grand Total Contract Cost Dollars Column 7c which represents Contract Cost Inception to Date	Submitted with CONTRACTOR data	Required. Does not require detailed line item data if provided from Cost Incurred Month (7a)	Required if detailed line item data is provided for this column	GT_ITD_COST	123	135	13	CURRENCY (2)
	Grand Total Contract Planned Cost Dollars Column (7d) which represents Planned Contract				GT_COST_PLANNED_ITD	136	148	13	CURRENCY (2)

CCR Extension Data Element	Description	Contractor Initial Data Mapping	NF 533 Required/Optional	OTHER CCR Required/Optional	Field Name	St Pos	EndPos	Len	Format
	Cost Inception to Date(CR 8197)								
Grand Total Estimated Cost (8a)	The Grand Total Contract Estimated Cost for first upcoming month, or Current Month Estimate for cost.	Submitted with CONTRACTOR data	Required	Required if detailed line item data is provided for this column	GT_EST_COST	149	161	13	CURRENCY (2)
Grand Total HR/WYE (8a)	The Grand Total Contract Estimated Hours for first upcoming month, or Current Month Estimate for HR/WYE.	Submitted with CONTRACTOR data	Required if detailed line item data is provided for this column	Required if detailed line item data is provided for this column	GT_HRWYE_FIRST_MONTH	162	171	10	NUMERIC (1)
Grand Total	The Grand Total	Submitted with	Required if	Required if detailed	GT_NEXT_MONTH_EST	172	184	13	CURRENCY (2)

CCR Extension Data Element	Description	Contractor Initial Data Mapping	NF 533 Required/Optional	OTHER CCR Required/Optional	Field Name	St Pos	EndPos	Len	Fmt
Next Month Estimated Cost (8b)	Contract Estimated Cost for second upcoming month or Next Month Estimate for cost.	CONTRACTOR data	detailed line item data is provided for this column	line item data is provided for this column					
	Grand Total Balance of Contract for the remaining estimate to complete (CR 8197)				GT_BALANCE_CONTRACT	185	197	13	CURRENCY (2)
	Grand Total Contractor Estimate for the total estimate to complete entire scope of contract (CR 8197)				GT_BALANCE_CONTRACTOR_ESTIMATE	198	210	13	CURRENCY (2)
	Grand Total Contract Value based upon				GT_CONTRACT_VALUE	211	223	13	CURRENCY (2)

CCR Extension Data Element	Description	Contractor Initial Data Mapping	NF 533 Required/Optional	OTHER CCR Required/Optional	Field Name	St Pos	EndPos	Len	Fmt
	Contract Modifications (CR 8197)								
	Grand Total Unfilled Orders Outstanding at end of reporting period (CR 8197)				ST_UNFILLED ORDERS	224	236	13	CURRENCY (2)

- k. **Submission:** The due dates for the NF533M and NF533Q reports are outlined in Chapter 3 of NPR 9501.2D. The following is a summary of the NF533 due date requirements.
- i. **Initial –**
 - 1. NASA Form 533Q – Within 30 days after authorization to proceed.
 - 2. NASA Form 533M – No later than 30 days after the incurrence of cost.
 - 3. **Initial Baseline Reports –** An initial NF533 report is required in the NF533Q format to be used as a baseline for the life of the contract. The initial (baseline) NF533Q shall be submitted by the Contractor within 30 days after authorization to proceed has been granted. The initial report shall reflect the original contract value detailed by negotiated reporting categories and shall be the original contract baseline plan.
 - ii. **Final –** N/A (see item 8.i.).
 - iii. **Frequency –**
 - 1. NF 533M – Due not later than 10 days following the close of the Contractor's monthly accounting period.
 - 2. NF 533Q – Due not later than the 15th day of the month preceding the quarter being reported.
 - 3. The due dates reflect the date the NF533 reports are received by personnel on the distribution list, not the date the reports are generated or mailed by the Contractor. It is critical that the NF533 reports are submitted in a timely manner to ensure adequate time for NASA to analyze and record the cost into the NASA accounting system.

Maintenance: Change pages or complete reissue shall incorporate changes.

Additional Reporting Requirements:

Detailed Financial Reporting Part A shall include supplemental electronic files to be submitted monthly consistent with the NF 533 submittals. The supplemental data will include, but not limited to, WBS task level reporting inclusive of contract number, task descriptions, WBS reference numbers, unique project identification numbers, monthly cost data, monthly EP data, cross references to NASA and contractor organizations, and other like data elements. The file will be formatted as agreed to with the MOD Business office, and contract COTR/TMR.

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

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1. DRD Title IMOC Workforce Report	2. Date of current version 11/08	3. DRL Line Item No. 1.3-c	RFP/Contract No. (Procurement completes) NNJ09HA15C
4. Use (Define need for, intended use of, and/or anticipated results of data) The report is used by NASA to provide workforce information to center management. The supplemental report is used by NASA Headquarters to support congressional inquiries.		5. DRD Category: (check one) <input type="checkbox"/> Technical <input checked="" type="checkbox"/> Administrative <input type="checkbox"/> SR&QA	
6. References (Optional)	7. Interrelationships (e.g., with other DRDs) (Optional) Note: This DRD may be initially satisfied by the corresponding SPOC deliverable. If the SPOC deliverable is utilized, another deliverable that meets all the requirements in this DRD will be required after SPOC, October 1, 2010.		
8. Preparation Information (Include complete instructions for document preparation)			

Scope --

The reports provide workforce data by geographic location.

Content --

The Annual workforce report should provide Equivalent Personnel (EPs) by location, specifically on or near site (NASA center), and by state for workforce outside of the responsible NASA center area. The report shall include contract labor, subcontract labor, and purchased labor. The data should be reconcilable to other financial deliverables. The content and frequency of the supplemental workforce report may vary based on specific direction provided by NASA Headquarters to support congressional inquiries. It's most common form is an annual request to provide workforce data by state, congressional district, or Zip Code.

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1. DRD Title IMOC Document and Data Management Plan	2. Date of current version 11/08	3. DRL Line Item No. 1.5.1	RFP/Contract No. (Procurement completes) NNJ09HA15C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) To provide a description of the contractor's document and data management system.		5. DRD Category: (<i>check one</i>) <input type="checkbox"/> Technical <input checked="" type="checkbox"/> Administrative <input type="checkbox"/> SR&QA	
6. References (<i>Optional</i>)	7. Interrelationships (<i>e.g., with other DRDs</i>) (<i>Optional</i>) Note: This DRD may be initially satisfied by the corresponding SPOC deliverable. If the SPOC deliverable is utilized, another deliverable that meets all the requirements in this DRD will be required after SPOC, October 1, 2010.		
8. Preparation Information (<i>Include complete instructions for document preparation</i>)			

Scope –

The Document and Data Management Plan describes the contractor's overall implementation of the document and data management requirements specified in the contract as integrated by the prime contractor and subcontractors.

Content –

The Document and Data Management Plan shall contain the following sections:

- a) **Document Management:** This section defines the procedures, policies, and formats used to produce and distribute document contract deliverables. The section shall include specifics on document numbering schema; and shall reference the contractors' documentation which are used to define internal layout and format requirements, and specific document setup practices that ensure appropriate hard-copy and/or electronic output.
- b) **Data Management:** This section shall define the scope and depth of the contractor's efforts including management, organization, planning, and the relationship of the data management program to the contractor's other administrative and technical organizations. The plan shall specify the contractor's management policies and identify, by specific reference, standard practices and detailed work instructions to be used in implementing the data management program. The plan shall include the following elements: management organization, control procedures, storage and retrieval procedures, subcontractor control procedures, and special restrictions. The plan shall include a preliminary data submittal schedule for fulfilling submittal of data in the specified quantities, specific media (electronic, paper, other), and due dates required.
- c) **Security for Data and Documents:** The Contractor shall include security (integrity, availability, confidentiality) requirements into data management and document development.

NNJ09HA15C
Integrated Mission Operations Contract

<p>1. DRD Title</p> <p>IMOC Records Management Plan</p>	<p>2. Date of current version</p> <p style="text-align: center;">11/08</p>	<p>3. DRL Line Item No.</p> <p style="text-align: center;">1.5.2</p>	<p>RFP/Contract No. (Procurement completes)</p> <p style="text-align: center;">NNJ09HA15C</p>
<p>4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>)</p> <p>To describe the contractor's records management organization, processes and systems.</p>		<p>5. DRD Category: (<i>check one</i>)</p> <p><input type="checkbox"/> Technical</p> <p><input checked="" type="checkbox"/> Administrative</p> <p><input type="checkbox"/> SR&QA</p>	
<p>6. References (<i>Optional</i>)</p> <p>NPD 1440.6</p> <p>NPR 1441.1</p>	<p>7. Interrelationships (<i>e.g., with other DRDs</i>) (<i>Optional</i>)</p> <p>Note: This DRD may be initially satisfied by the corresponding SPOC deliverable. If the SPOC deliverable is utilized, another deliverable that meets all the requirements in this DRD will be required after SPOC, October 1, 2010.</p>		

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

Scope –

The plan shall document the contractors' processes for identifying, collecting, maintaining and archiving all records generated during the performance of all tasks in this SOW. This shall include plans for disposition of these records at the end of the contract.

Content –

The Records Management Plan shall address the contractor's plans for identifying, collecting, maintaining and archiving all official records generated under this contract per NPD 1440.6 and NPR 1441.1.

1. DRD Title IMOC Configuration Management Plan	2. Date of current version 11/08	3. DRL Line Item No. 1.6	RFP/Contract No. (Procurement completes) NNJ09HA15C
4. Use <i>(Define need for, intended use of, and/or anticipated results of data)</i> To describe the Contractor's method for accomplishing the configuration management requirements of the contract. This will assure that a process will be used to appropriately and accurately define the configuration baselines of the contractor-provided products.		5. DRD Category: <i>(check one)</i> <input type="checkbox"/> Technical <input checked="" type="checkbox"/> Administrative <input type="checkbox"/> SR&QA	
6. References <i>(Optional)</i>	7. Interrelationships <i>(e.g., with other DRDs) (Optional)</i> IMOC Management Plan Note: This DRD may be initially satisfied by the corresponding SPOC deliverable. If the SPOC deliverable is utilized, another deliverable that meets all the requirements in this DRD will be required after SPOC, October 1, 2010.		
8. Preparation Information <i>(Include complete instructions for document preparation)</i>			

SCOPE:

The Configuration Management Plan (CMP) provides the Contractor's approach for implementation of configuration management in accordance with the SOW. The plan shall describe the contractor's management approach and planned implementation methods for accomplishing the configuration management requirements of the contract.

CONTENTS:

The Configuration Management Plan shall define the scope and depth of the Contractor's efforts including management, organization, planning, and the relationship of the configuration management program to the Contractor's other administrative and technical organizations. The plan shall specify the Contractor's management policies and identify, by specific reference, standard practices and detailed work instructions to be used in implementing the configuration management program. It will also discuss how the Contractor shall verify and validate their CM system through an internal audit process.

The plan shall address each of the following essential elements of CM:

(1) Configuration identification, (2) configuration control, (3) configuration status accounting, and (4) configuration verification. The plan shall describe in relation to these essential elements of CM the contractor's CM organization, policies, procedures, implementation approach, and control systems that are to be used to ensure proper performance of all required contract CM activities.

1. DRD Title IMOC Government Property Management Plan	2. Date of current version 11/08	3. DRL Line Item No. 1.7-a	RFP/Contract No. (Procurement completes) NNJ09HA15C
4. Use (Define need for, intended use of, and/or anticipated results of data) To describe the method of administering Government personal property.		5. DRD Category: (check one) <input type="checkbox"/> Technical <input checked="" type="checkbox"/> Administrative <input type="checkbox"/> SR&QA	
6. References (Optional) Federal Acquisition Regulation (FAR) Part 45 NASA FAR Supplement (NFS) Part 1845, NASA Procurement Information Circular 07-09 (Sept 11, 2007)	7. Interrelationships (e.g., with other DRDs) (Optional)		

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

Scope –

The Government Property Management plan defines the contractor's use, maintenance, repair, protection, and preservation of Government personal property. It shall describe the contractor's approach to receiving, handling, stocking, maintaining, protecting, and issuing Government property. The Plan should include interaction and Departmental/Office responsibilities. The delegated Property Administrator will request detailed procedures after contract start.

APPLICABLE DOCUMENTS: NASA Procurement Information Circular 07-09 (Sept 11, 2007)

CONTENTS: This plan shall reference those policies and procedures, which constitute the contractor's Property Management Manual and shall include at a minimum the following categories:

- | | | |
|---|----------------------|------------------------------|
| Property Management | Acquisition | Receiving |
| Identification | Records | Movement |
| Storage | Physical Inventories | Reports |
| Consumption | Utilization | Maintenance |
| Subcontractor | Control Disposition | Contractor Closeout |
| Reconcile Contractor Records with Financial Records | | Center-Unique Considerations |

FORMAT: Contractor format is acceptable; electronic format and availability as required by Contracting Officer's letter.

MAINTENANCE: Changes shall be incorporated by change pages or complete reissue.

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Integrated Mission Operations Contract

1. DRD Title IMOC Security Management Plan	2. Date of current version 11/08	3. DRL Line Item No. 1.8-a	RFP/Contract No. (Procurement completes) NNJ09HA15C
4. Use (Define need for, intended use of, and/or anticipated results of data) The plan will be used to define the contractor security management task.		5. DRD Category: (check one) <input type="checkbox"/> Technical <input checked="" type="checkbox"/> Administrative <input type="checkbox"/> SR&QA	
6. References (Optional)	7. Interrelationships (e.g., with other DRDs) (Optional) IMOC Management Plan. Note: This DRD may be initially satisfied by the corresponding SPOC deliverable. If the SPOC deliverable is utilized, another deliverable that meets all the requirements in this DRD will be required after SPOC, October 1, 2010.		
8. Preparation Information (Include complete instructions for document preparation)			

Scope - The contractor's security program shall encompass Industrial, Physical, Administrative, Information, Communication, Personnel, threat analysis, and IT security programs. The contractor will provide protection/safeguarding of personnel, facilities, assets, equipment, classified information/materials, and unclassified sensitive/technological data/information as required. In accordance with NASA regulations governing National Security, National Resource Protection, and Technology Protection the Contractor shall provide security engineering, maintenance, and operations for systems protecting classified controlled and sensitive but unclassified information. The contractor shall use the NASA supplied training in SATERN to satisfy personnel physical and IT training requirements.

The Security Management Plan shall describe the Contractor's approach for meeting and maintaining the security integrity of the security baseline. The plan will address the security requirements for facilities, systems, equipment, personnel, information, classified automated information systems, and communications.

APPLICABLE DOCUMENTS:

- FAR 52.204-2
- NISPOM National Industrial Security Program Operating Manual
- Arms Export Control Act (AECA)
- Executive Order 12958: National Security Information
- Homeland Security Presidential Directive 12
- National Security Decision Memorandum (NSDM) 119
- Export Administration Regulations (EAR)
- International Traffic In Arms Regulation (ITAR)
- TEMPEST Countermeasures for Facilities (NTISSI 7000)
- NPR 2810.1: Security of Information Technology
- NPR 1600.1: NASA Security Program Procedural Requirements
- NPD 1600.2: NASA Security Policy
- NPR 1620.2: Physical Security Vulnerability Risk Assessments
- NPR 1620.3: Physical Security Requirements for NASA Facilities and Property
- NPD 1660.1: NASA Counterintelligence (CI) Policy
- NPR 1660.1: Counterintelligence (CI)/Counterterrorism (CT) Procedural Requirements

CONTENT - The management structure, processes and reporting requirements, techniques and formats must be established and/or defined and documented to insure adequate visibility and insight for NASA MOD Management and Center Security Management. The Security Management Plan shall include:

- 1) A description of the contractor's security management structure and assignment of responsibilities.
- 2) The approach for integrating security requirements into functions as described in the SOW (including interfacing with subcontractors).
- 3) Identification of the security interfaces with NASA, DoD, and other government agencies and contractors.
- 4) A description of the security baseline configuration management program.
- 5) The methodology for obtaining certifications and re-certifications.
- 6) The methodology for the use of risk assessment and the processes to be implemented.
- 7) Process for developing security implementation plans as requested by NASA for new/expanded classified systems/facilities and security programs.
- 8) Secure Operations Procedures which include, but are not limited to:
 - a) AUTODIN and SPADOC message transmission, receipt, storage and delivery
 - b) Classified facsimile message procedures
 - c) Opening and closing procedures
 - d) Maintenance and operations procedures
 - e) Emergency procedures

The Security Plan will take into account the following:

1. All IMOC SBU products will be delivered to the Government, and not sent directly to a foreign recipient.
 - The Contractor shall comply with the export control laws and regulations of the United States (U.S.)
 - The Government will identify the information that is SBU
2. The Government will be the owner of the data/analysis/reports/products/etc.

The MOD security management goals are as follows:

Required Service:	Provide physical access/egress, classified (CI) information and violence/damage control.
Standard:	No security violations, anomalies, unauthorized CI disclosures, and preventable security incidents.
MER:	No violations or incidents that result in compromises, disclosures, serious personal injury or intentional physical damage.

1. DRD Title IMOC Technology Protection Control Plan	2. Date of current version 11/08	3. DRL Line Item No. 1.8-b	RFP/Contract No. (Procurement completes) NNJ09HA15C
4. Use (Define need for, intended use of, and/or anticipated results of data) The plan will be used to define the SPOC technology protection mechanisms for all SSP development and operations activities.		5. DRD Category: (check one) <input type="checkbox"/> Technical <input checked="" type="checkbox"/> Administrative <input type="checkbox"/> SR&QA	
6. References (Optional)	7. Interrelationships (e.g., with other DRDs) (Optional) IMOC Management Plan. Note: This DRD may be initially satisfied by the corresponding SPOC deliverable. If the SPOC deliverable is utilized, another deliverable that meets all the requirements in this DRD will be required after SPOC, October 1, 2010.		
8. Preparation Information (Include complete instructions for document preparation)			

Scope - The Technology Protection Control Plan shall describe the Contractor's approach for meeting and maintaining baseline requirements for the protection and control of classified controlled information, unclassified controlled information, hardware, software and services (including export controlled and proprietary data). The plan and the requirements contained therein apply to all industry and academic partners, elements, and activities.

APPLICABLE DOCUMENTS:

- Federal Acquisition Regulation (FAR)
- NASA FAR Supplement
- NISPOM National Industrial Security Program Operating Manual
- Arms Export Control Act (AECA)
- Executive Order 12958: National Security Information
- Homeland Security Presidential Directive 12
- National Security Decision Memorandum (NSDM) 119
- Export Administration Regulations (EAR)
- International Traffic in Arms Regulation (ITAR)

Content – The management structure, processes and reporting requirements, techniques and formats shall be established and/or defined and documented to insure adequate visibility and insight for MOD Management, Center Security Management, and Center Export Control Management. The Technology Protection Control Plan shall include:

1. A description of the contractor's technology protection management structure and assignment of responsibilities.
2. The approach for integrating security, export control and proprietary data requirements into functions as described in the SOW (including interfacing with subcontractors).
3. Identification of the interfaces with NASA, DoD, DOS, DOC and other government agencies and contractors.
4. A description of the technology protection baseline configuration management program.
5. The methodology for the use of risk assessment and the processes to be implemented for export control compliance.
6. Procedures for integrating Security, Export Control and Proprietary Data requirements/regulations
7. Technology Protection personnel responsibilities
8. Methodology for the application of Risk Assessment
9. Methodology for developing, obtaining, submitting and executing licenses and agreements with the DOC and DOS
10. Training of employees
11. Methodology for the communication of regulations/requirements and also their influence on schedule with (1) employees, (2) subcontractors, and (3) NASA
12. Process for determining the category of data and procedures for handling different categories

1. DRD Title IMOC Safety and Health Plan	2. Date of current version 11/08	3. DRL Line Item No. 1.9.1-a	RFP/Contract No. (Procurement completes) NNJ09HA15C
4. Use (Define need for, intended use of, and/or anticipated results of data) Establishes Safety, Health, and Environmental Compliance Plan for Contractors providing support to JSC organizations ***The Office of Primary Responsibility for this DRD is the JSC Safety and Test Operations Division		5. DRD Category: (check one) <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <input type="checkbox"/> </div> <div style="margin-right: 10px;"> <input checked="" type="checkbox"/> </div> <div> Technical Administrative SR&QA </div> </div>	
6. References (Optional) OSHA TED 8.4, Voluntary Protection Plan (VPP) Policies and Procedures Manual JSC 17773, Instructions for Preparation of Hazard Analysis for JSC Ground Operations JPR 1700.1 JSC Safety and Health Handbook	7. Interrelationships (e.g., with other DRDs) (Optional) IMOC Safety Summary Report, IMOC Monthly Safety and Health Metrics, IMOC Safety and Health Program Self Evaluation Clause H.4 Safety and Health SOW paragraph 1.9.1(a) Note: This DRD may be initially satisfied by the corresponding SPOC deliverable, with the Additional Provisions noted below. If the SPOC deliverable is utilized, another deliverable that meets all the requirements in this DRD will be required after SPOC, October 1, 2010.		
8. Preparation Information (Include complete instructions for document preparation)			

SCOPE –

Provide the Contractor’s safety, health, and environmental compliance policy statement with the plan.

OTHER DELIVERABLES: The requirements for this plan as detailed in the instructions on plan content below include instructions for specific reports and data to be submitted to the Government. These instructions are to be included in the plan and represent contractual commitments by the Contractor to provide this information.

ADDITIONAL PROVISIONS TO SPOC SAFETY AND HEALTH PLAN:

1. The Contractor shall meet the requirements of paragraph 2.7.1 in this DRD regarding Mishap Investigations.
2. The Contractor shall apply JPR 1700.1 JSC Safety and Health Handbook as an applicable document.

CONTENT- MANAGEMENT LEADERSHIP AND EMPLOYEE PARTICIPATION

When preparing its plan, the Contractor is expected to review all the items below. For requirements not applicable to this contract, do not include in Safety and Health Plan and state “Not Applicable.” This review and supporting rationale is to be made available to the Government as part of this plan. It can be documented as a checklist or outline, inserted directly in the body of the plan, or in any format developed by the Contractor that clearly conveys the results of this review including the basis for any underlying assumptions.

The plan will clearly identify those resources to be provided by the Contractor and proposed resources to be provided by the Government.

- 1.1 Policy: Provide the Contractor’s safety, health, and environmental compliance policy statement with the plan. Compare the Contractor’s policy statement with those of NASA and OSHA and discuss any

differences. The policy shall cover operations both by the contractor and by other government and non-government organizations within facilities controlled by the contractor.

1.2 Goals and Objectives. Describe the approach to the following:

1.2.1 Specific annual safety and health goals and objectives to be met.

1.2.2 Methods to be used, if any, to improve on the Days Away Case Rate (DACR), the Total Recordable Injury Rate (TRIR), and the total Days Away plus Restricted Duty plus Job Transfer (DART).

1.3 Management Leadership. Describe management's procedures for implementing its sustaining commitment to safety, health, and environmental compliance through visible management activities and initiatives including a commitment to exercise management prerogatives to ensure workplace safety and health. Describe processes and procedures to making this visible in all Contract and subcontract activities and products. Include a statement from the project manager or designated safety official indicating that the plan will be implemented as approved and that the project manager will take personal responsibility for its implementation.

1.4 Employee Involvement. Describe procedures to promote, implement, and sustain employee (e.g., non-supervisory) involvement in safety, health, and environmental compliance program development, implementation and decision-making. Describe the scope and breadth of employee participation to be achieved so that approximate safety and health risk areas of the Contract are equitably represented. Describe methods to be used to obtain employee buy in and address the behavioral aspects of safety.

1.5 Assignment of Responsibility. Describe line and staff responsibilities for safety and health program implementation. Identify any other personnel or organization that provides safety services or exercises any form of control or assurance in these areas. State the means of communication and interface concerning related issues used by line, staff, and others (such as documentation, concurrence requirements, committee structure, sharing of the work site with NASA and other Contractors, or other special responsibilities and support). As a minimum, the Contractor will identify the following:

1.5.1 Safety Representative - identify by title, the individual who will be trained and certified in accordance with JPR 1700.1 to be responsive to Center-wide safety, health, environmental, and fire protection concerns and goals, and who will participate in meetings and other activities related to the JSC Safety and Health program.

1.5.2 Company Physician/Occupational Injury/illness case manager - identify a point of contact who is responsible for the transfer or receipt of company medical data and who will be the primary contact for the company in the event any employee suffers a work related injury or illness (such as the company physician) by name, address, and telephone number to the JSC Clinic, mail code SD22. This will facilitate communication of medical data to Contractor management. Prompt notification to the JSC Occupational Health/Clinic shall be given of any changes that occur in the identity of the point of contact.

1.5.3 Building Fire Wardens - provide a roster of fire wardens at the start of each Contract year (their names, telephone numbers and pagers, and mail codes). Contractor fire wardens are needed to facilitate the JSC fire safety program, including coordination of related issues with NASA facility managers and emergency planning and response officials and their representatives. Fire wardens will be trained in accordance with JPR 1700.1. The Roster shall be maintained by letter to the JSC Occupational Safety, mail code NS2, with copies to the Contracting Officer and the Contracting Officers Technical Representative. The initial letter shall be received by the Government not later than 15 days after contract start.

1.5.4 Designated Safety Official - identify by title the official(s) responsible for implementation of this plan and all formal contacts with regulatory agencies and with NASA.

1.6 Provision of Authority. Describe consistency of the plan for compliance with applicable NASA and JSC requirements and contractual direction as well as applicable Federal, State, and Local regulations and how compliance will be maintained throughout the life of the contract.

1.7 **Accountability.** Describe procedures for ensuring that management and employees will be held accountable for implementing their tasks in a safe, healthful, and environmentally compliant manner. The use of traditional and/or innovative personnel management methods (including discipline, motivational techniques, or any other technique that ensures accountability) will be referenced as a minimum and described as appropriate.

1.8 **Program Evaluation.** Describe approach to safety and health program evaluation. The program evaluation consists of:

1.8.1

1.8.2 A written self-evaluation report to be delivered two times per year, at the start of each contract year and at the mid point of the contract year. The self evaluation shall be provided for the Contractor performance evaluation. The self-evaluation shall follow the VPP program evaluation report format found in OSHA TED 8.4, Voluntary Protection Programs (VPP) Policies and Procedures Manual, Appendix D, "Annual Submissions", as mandated by the cognizant OSHA regional office. Contractors who have submitted a written self-evaluation as a VPP site may submit their original report to OSHA in lieu of writing a new self-evaluation provided that all action plans and status are updated. The self-evaluation shall as a minimum cover the elements of the approved safety and health plan.

1.9 **Miscellaneous Reports.** The Contractor will acknowledge the following as standing requests of the Government and to be handled as described below.

1.9.1 **Roster of Terminated Employees.** Identify personnel terminated by the contractor. Send to the JSC Occupational Health Officer, no later than 30 days after the end of each contract year. At the contractor's discretion, the report may be submitted for personnel changes during the previous year or cumulated for all years. Information required:

- a. Date of report, Contractor identity, and Contract number.
- b. For each person listed, provide name, social security number, and date of termination.
- c. Name, address, and telephone number of Contractor representative to be contacted for questions or other information.

1.9.2 **Material Safety Data Sheets (MSDS).** The Contractor shall prepare and/or deliver MSDS for hazardous materials brought onto Government property or included in products delivered to the Government. This data is required by the Occupational Safety and Health Administration (OSHA) regulation, 29 CFR 1910.1200, "Hazard Communication", EPA "Emergency Planning and Community Right-to-Know (EPCRA, ref. 40 CFR 302, 311, 312); and the Texas Department of Health (TDH, ref. Chapters 505-507 of the Health and Safety Code), and Federal Standard 313 (or FED-STD-313), "Material Safety Data, Transportation Data and Disposal Data for Hazardous Materials Furnished to Government Activities", as revised. 1 copy of each MSDS will be sent upon receipt of the material for use on NASA property to the JSC Central Repository, Occupational Health and Test Support, along with information on new or changed locations and/or quantities normally stored or used. If the MSDS arrive with the material and is needed for immediate use, the MSDS shall be delivered to the Central Repository by close of business of the next working day after it enters the site.

1.9.3 **Hazardous Materials Inventory.** The Contractor shall compile an inventory report of all hazardous materials it has located on Government property quarterly, and which is within the scope of 29 CFR 1910.1200, "Hazard Communication"; and Federal Standard 313 (or FED-STD-313), "Material Safety Data, Transportation Data and Disposal Data for Hazardous Materials Furnished to Government Activities", as revised. The call for this inventory and instructions for delivery will be issued by the JSC Occupational Health and Test Support Office, mail code SD13. This information shall use the format used by JSC for chemical inventory compilation to provide the following:

- a. The identity of the material (product number, chemical, manufacturer, and NSN as available).

- b. The location of the material by building, room and area/cabinet number.
- c. The quantity of each material normally kept at each location (number of containers, container size, type container, unit of measure, conversion factor, storage temp & pressure, physical state/form, specific gravity, total pounds).
- d. Peak quantity stored.
- e. Actual or estimated rate of annual usage of each chemical.

1.10 Government Access to Safety and Health Program Documentation. The Contractor shall recognize, in its plan, that all safety, health, and environmental documentation (including relevant personnel records) be available for inspection or audit at the Government's request. Electronic access by the Government to this data is preferred as long as Privacy Act requirements are met and Government safety and health professionals and their representatives have full and unimpeded access for review and audit purposes. For Contractor activities conducted on NASA property, the Contractor will identify what records will be made available to the Government in accordance with the criteria of OSHA as implemented in JPR 1700.1, "JSC Safety and Health Handbook", as revised. For the purpose of this plan, safety, health, and environmental compliance documentation includes but is not limited to: logs, records, minutes, procedures, checklists, statistics, reports, analyses, notes, or other written or electronic document which contains in whole or in part any subject matter pertinent to safety, health, environmental protection, or emergency preparedness.

1.11 Review and Modification of Safety Requirements. The Contractor may be requested to participate in the review and modification of safety requirements that are to be implemented by the Government including any referenced documents therein. This review activity will be implemented at the direction of the NASA *COTR in accordance with established NASA directives and procedures.

1.12 Procurement. Identify procedures used to assure that procurements are reviewed for safety, health and environmental compliance considerations and that specifications contain appropriate safety criteria and instructions. Set forth authority and responsibility to assure that safety tasks are clearly stated in subcontracts.

1.13 Certified Professional Resources. Discuss access to certified professional resources for safety, health, and environmental protection. Discuss their roles in motivation/awareness, worksite analysis, hazard prevention and control, and training.

2.1 Worksite Analysis. Contractor worksite hazards shall be systematically identified through a combination of surveys, analyses, and inspections of the workplace, investigations of mishaps and close calls, and the collection and trend analysis of safety and health data such as: records of occupational injuries and illnesses, findings and observations from preventive maintenance activities, reports on hazardous substance spills and inadvertent releases to the environment, facilities related incidents related to partial or full loss of systems functions; etc. Describe how hazards identified by any of the techniques identified below shall be ranked, processed, and mitigated in accordance with JPR 1700.1. All hazards on NASA property, which are immediately dangerous to life or health, shall be reported immediately to the Occupational Safety Office. All safety engineering products that address operations, equipment, etc., on NASA property will be subject to JSC Safety and Test Operations Division review and concurrence unless otherwise waived by the JSC Occupational Safety Office.

2.2 Industrial Hygiene. Describe industrial hygiene program and how it will be coordinated with the JSC Government provided resources for industrial hygiene. In the event corporate resources are used to determine workplace exposures, copies of all monitoring data shall be provided to JSC Occupational Health within 15 days of receipt of results

2.3 Hazard Identification. Describe the procedures and techniques to be utilized to compile an inventory of hazards associated with the work to be performed on this Contract. This inventory of hazards shall address the work specified in this Contract as well as operations and work environments in the vicinity or in close

proximity to Contract operations. The results will be reported to the Government in a manner suitable for inclusion in facilities baseline documentation as a permanent record of the facility. Specific techniques to be considered include:

2.3.1 Comprehensive Survey - A wall to wall" engineering assessment of the Contractor's worksite, which includes the Government furnished facilities and the immediate vicinity in which a work task will be performed. This assessment encompasses facilities, equipment, processes, and materials (including wastes TNRCC/EPA solid and hazardous, radioactive, explosives, medical-infectious-biological).

2.3.2 Change (Pre-use) Analysis - Typically addresses modifications in facilities, equipment, processes, and materials (including waste); and related procedures for operations and maintenance. Change analyses periodically will be driven by new or modified regulatory and NASA requirements.

2.3.3 Hazard Analysis - May address facilities, systems/subsystems, operations, processes, materials (including waste), and specific tasks or jobs. Analyses and report formats will be in accordance with JSC 17773, "Preparing of Hazard Analyses for JSC Ground Operations."

2.3.4 The Contractors safety plan will describe the flow of the findings of the comprehensive survey of hazards into hazard analyses and job hazard analyses and subsequently into controls such as design, operations, processes, procedures, performance standards, and training. The contractor will discuss its approach to notify NASA and other parties external to the contract work of its identified hazards and subsequent analyses and controls.

2.4 Inspections. Includes assignments, procedures, and frequency for regular inspection and evaluation of work areas for hazards and accountability for implementation of corrective measures. The Contractor will describe administrative requirements and procedures for control of and regularly scheduled inspections for fire and explosion hazards. The Contractor has the option, in lieu of this detail, to identify policies and procedures with the stipulation that the results (including findings) of inspections conducted on NASA property or involving Government furnished property will be documented in safety program evaluations or the monthly Accident/Incident Summary reports. Inspections will identify:

- a. Discrepancies between observed conditions and current requirements, and,
- b. New (not previously identified) or modified hazards.

2.5 Protective Equipment - Set forth procedures for obtaining, inspecting, and maintaining all appropriate protective equipment, as required, or reference written procedure pertaining to this subject. Set forth methods for keeping records of such inspections and maintenance programs.

2.6 Employee Reports of Hazards - Identification of methods to encourage employee reports of hazardous conditions (e.g., close calls) and analyze/abate hazards. The Contractor will describe steps it will take to create reprisal-free employee reporting with emphasis on management support for employees and describe methods to be used to incorporate employee insights into hazard abatement and motivation/awareness activities.

2.7 Accident and Record Analysis

2.7.1 Mishap Investigation – identification of methods to assure the reporting and investigation of mishaps including corrective actions implemented to prevent recurrence. The Contractor will describe the methods to be used to report and investigate mishaps for facilities controlled by the contractor on NASA property, Contractor property and/or third party property. The Contractor will describe its procedures for implementing immediate notification of NASA using the call tree in 2.5.1.a below, the use of the quick incident reports found at the lower center of the home page of the NASA Incident Reporting Information System (IRIS) at <https://nasa.ex3host.com/iris/newmenu/login.asp> and use of NASA forms as specified in JPR1700.1 or any alternate forms used by Contractor. The contingency plan will emphasize timely notification of NASA; preliminary and formal investigation procedures; exercise of jurisdiction over a mishap investigation involving NASA and other contractor personnel; preparation and submission of a formal report to NASA; follow up of

corrective actions; communication of lessons learned to NASA; and solutions to minimize duplications in reporting and documentation including use of alternate forms, etc. The Contractor will discuss its procedures for immediate notification requirements for fires, hazardous materials releases, and other emergencies. The Contractor will include appropriate details to address the following:

Note: the NASA Form 1627 is not attached since it is a three part carbonless form not conducive to reproduction. This form can be obtained from JSC's Printing Services.

- a. The Contractor will include a mishap contingency plan for as part of the Safety and Health Plan which meets the requirements of NPR 8621.1B, "NASA Procedural Requirement for Mishap and Close Call Reporting, Investigating, and Recordkeeping", and JPR 1700.1, ****JSC Safety and Health Handbook**. The plan will identify the method of notifying NASA in the advent of a type A or B mishap or C property damage mishap and close call with equivalent likely potential so NASA may take custody of the mishap scene and initiate its investigation as soon as it is safe following the mishap. The contingency plan will clearly identify the Government investigation as taking precedence over any contractor investigation. The Contractor will immediately contact the JSC Safety and Test Operations Division at 281-483-4900 for guidance when a Type A or B mishap or Type C property damage mishap occurs in the course of performing work on a NASA Contract in whole or in part. Such immediate notifications plus all other notification will be documented using the quick incident tables ("health" for injuries and "safety" for property damage) at the IRIS home page.
- b. For Type C injuries and all lower level mishaps, the Contractor will perform its own investigation and submit a report to NASA in accordance with the requirements of NPR 8621.1. The Contractor will ensure that NASA is promptly notified of any Type D mishap so that NASA provides a civil servant to oversee the investigation in an ex officio capacity prior to start of any formal investigation. All initial reports and selected follow up reporting will be accomplished using IRIS.
- c. When a NASA investigation is required, witnesses will be identified and their names and contact information provided to NASA investigator but witness statement must be requested and collected by NASA. Such statements will be retained by the Government as part of the mishap file in accordance with NPR 8621.1.
- d. The Contractor will deliver to NASA mishap reports which shall include the data specified in NPR 8621.1 for the level of mishap. NASA approval and endorsements will be required as specified in NPR 8621.1 and included in the approved Safety and Health Plan.

2.7.2 Trend Analysis – Describe approach to performing trend analysis of data (occupational injuries and illnesses; facilities, systems, and equipment performance; maintenance findings; etc.). Discuss methods to identify and abate common causes indicated by trend analysis. In support of site-wide trend analysis to be performed by the Government, the Contractor will discuss method of providing data as follows.

- a. Accident/Incident Summary Report - The Contractor shall prepare and deliver Accident/Incident Summary Reports as specified on JSC Form 288, "Accident/Incident Statistics" as revised. All new and open mishaps, including vehicle accidents, incidents, injuries, fires, and close calls shall be described in summary form along with current status. Negative reports are also required monthly. Report frequency is monthly; date due is the 10th days of the month following each month reported. Report to be delivered to the JSC S & MA Directorate through the Safety and Test Operations Division, mail code NS2, by fax to 281-244-0426 or by attaching to an e-mail and transmitting to JSC-Safety-Report-Submittals@mail.nasa.gov.
- b. Log of Occupational Injuries/Illnesses
 - i. For each establishment on and off NASA property that performs work on this Contract, the Contractor shall deliver, to the Government, a copy of its annual summary of occupational injuries and illnesses (or equivalent) as described in Title 29, Code of Federal Regulations, Subpart 1904.5. A copy of all summaries as required above under Contractor's cover letter. If the Contractor is exempt by regulation from maintaining and publishing such logs, equivalent data

in Contractor's format is acceptable (such as loss runs from insurance carrier) which contains the data required by JSC Form 288.

- ii. Data shall be compiled and reported by calendar year and provided to the Government within 45 days after the end of the year to be reported (e.g. not later than February 15 of the year following).

3. Hazard Prevention and Control

3.1 Identified hazards must be eliminated or controlled. In the multiple employer environment of the Center, it is required that hazards including discrepancies and corrective actions be collected in a Center wide information system (Hazard Abatement Tracking System (HATS) for risk management purposes. Describe approach to implementing this requirement.

3.2 Appropriate Controls. Discuss approach to consideration and selection of controls. Discuss use of hazard reduction precedence sequence (see JPR 1700.1). Discuss approach to identifying and accepting any residual risk for hazards not eliminated or controlled. Discuss implementation of controls including verifying effectiveness. Discuss scope of coverage (hazardous chemicals, equipment, discharges, waste, energies, etc.). Discuss need for coordination with safety, health, environmental services, and emergency authorities at NASA.

3.3 Hazardous Operations and Processes. Establish methods for notification of personnel when hazardous operations and processes are to be performed in their facilities or when hazardous conditions are found to exist during the course of this Contract. JPR 1700.1 will serve as a guide for defining, classifying, and prioritizing hazardous operations; 29 CFR 1910.119 will be the guide for hazardous processes. Develop and maintain a list of hazardous operations and processes to be performed during the life of this Contract. The list of hazardous operations and processes will be provided to JSC as part of the plan for review and approval. JSC and the Contractor will decide jointly which operations and processes are to be considered hazardous, with JSC as the final authority. Before hazardous operations or processes commence, the Contractor will develop a schedule to develop written procedures with particular emphasis on identifying the job safety steps required. NASA will have access on request to any Contractor data necessary to verify implementation. For all identified operations or processes that may have safety or health implications outside Contract operations, the Contractor shall identify such circumstances to the JSC Occupational Safety Branch and Occupational Health and Test Support Office who will provide additional instructions for further NASA management review and approval.

3.4 Written Procedures. Identification of methods to assure that the relevant hazardous situations and proper controls are identified in documentation such as inspection procedures, test procedures, etc., and other related information. Describe methods to assure that written procedures are developed for all hazardous operations, including testing, maintenance, repairs, and handling of hazardous materials and hazardous waste. Procedures will be developed in a format suitable for use as safety documentation (such as a safety manual) and be readily available to personnel as required to correctly perform their duties.

3.5 Hazardous Operations Permits. Identify facilities, operations and/or tasks where hazardous operations permits will be required as specified in JPR 1700.1 such as confined space entry, hot work, etc. Set forth guidance to adhere to established NASA JSC procedures. Clearly state the role of the safety group or function to control such permits.

3.6 Operations Involving Potential Asbestos Exposures. Set forth method by which compliance is assured with JSC Asbestos Control Program as established in JPR 1700.1, as revised, and JPG 8800.1, "Asbestos Control Manual," as revised.

3.7 Operations Involving Exposures to Toxic or Unhealthful Materials. Such operations must be evaluated by the JSC Occupational Health Office and must be properly controlled as advised by same. JSC Occupational Health Office must be notified prior to initiation of any new or modified operation potentially hazardous to health.

3.8 Environmental Operations & Activities. Describe approach to the following:

3.8.1. Operations Involving Hazardous Waste. Identify procedures used to manage hazardous waste from point of generation through disposal. Clearly identify divisions of responsibility between contractor and NASA for hazardous waste generated throughout the life of the contract. Operations that occur on site at JSC, SCTF, or Ellington Field must be evaluated by the JSC Environmental Services Office and must be properly controlled as advised by same. JSC Environmental Services Office must be notified prior to initiation of any new or modified operations, equipment, systems, or activities generating new hazardous wastes or where the chemicals change or there are volume increases of 25% or more on site at JSC, SCTF, or Ellington Field.

3.8.2. Operations Involving New or Modified Emissions/Discharges to the Environment. Set forth methods for identifying new or modified emissions/discharges and coordinating results with the Environmental Services Office, mail code JE. Set forth a plan of procedures to conduct pollution prevention, waste minimization or source reduction/elimination of environmental pollution. Address management and continuous improvement for the reduction of hazardous materials; substitution of non-hazardous or less hazardous materials for hazardous materials; proper segregation of hazardous wastes from non-hazardous wastes; and other methods described by NASA, EPA, GSA, and Executive Order recycled content / affirmative procurement purchases. The JE/Environmental Office is the single point of contact for coordinating all JSC environmental permits. Emphasis shall be placed on providing for sufficient lead time for processing permits through the appropriate state agency and/or the Environmental Protection Agency.

3.9 Baseline Documentation. Discuss the Contractor's responsibilities for maintaining facilities baseline documentation in accordance with JSC requirements. The Contractor will implement any facilities baseline documentation tasks (including safety engineering) as provided in the Contractor's plan approved by NASA or as required by Government direction.

3.10 Preventive Maintenance. Discuss approach to preventive maintenance. Describe scope, frequency, and supporting rationale for preventive maintenance program including facilities and/or equipment to be emphasized or de-emphasized. Discuss methods to promote awareness in the NASA community (such as alerts, safety flashes, etc.) when preventive maintenance reveals design or operational concerns in facilities and equipment (and related processes where applicable).

3.11 Medical (Occupational Healthcare) Program. Discuss the Contractor's medical surveillance program and injury/illness case management to evaluate personnel and workplace conditions to identify specific health issues and prevent degradation of personnel health as a result of occupational exposures. Discuss approach to Cardiopulmonary Resuscitation (CPR), first aid, and return to work policies and the use of Government provided medical and emergency facilities for the initial treatment of occupational injuries/illnesses.

3.12. Hazard Correction and Tracking. Discuss system for correcting and tracking safety, health, and environmental hazards with particular emphasis on integration with JSC's Hazard Abatement Process (found on line @ <http://www.srqa.jsc.nasa.gov/HATS/>). (The scope is restricted to establishments at JSC, Sonny Carter Training Facility, and Ellington Field.) This includes the following:

3.12.1 Personnel Awareness of Hazards. Discuss approach to communicate unsafe conditions and approved countermeasures to employees. Discuss approach to communicating such conditions to the Government and other Contractors whose personnel may be exposed to such unsafe conditions. Discuss communications with FM's. Discuss use of the NASA Lessons Learned Information System for both obtaining lessons from other sources and as a repository for lessons learned during performance of the Contract.

3.12.2 Interim and Final Abatement Plans - Describe how the contractor will approach interim and final abatement of hazards. Describe how the contractor will provide data to the JSC HATS for all hazards within Contractor-occupied facilities that are not finally abated (all interim and final abatement actions completed) within 30 days of discovery. Discuss approach to posting such plans using JSC Form 1240, "JSC Notice of Safety or Health and Action Plan", or equivalent. Discuss compatibility of system with JSC's role of facility managers in abatement planning, implementation, and verification.

3.13 Disciplinary System. Describe system for ensuring safety and health discipline in personnel (including subcontractors). Describe approach to modifying personnel behaviors when personnel are exhibiting discrepant safety and health performance.

3.14 Emergency Preparedness. Discuss approach to emergency preparedness and contingency planning which addresses fire, explosion, inclement weather, environmental spill/releases, etc. Discuss compliance with 29 CFR 1910.120 (HAZWOPER) and role in JSC Incident Command System (see JPR 1700.1 for details). Discuss methods to be used for notification of JSC emergency forces including emergency dispatcher, safety hotline, director's safety hotline, etc. Discuss establishment of pre-planning strategies through procedures, training, drills, etc. Discuss methods to verify emergency readiness.

4. Safety and Health Training. Discuss the following:

4.1 Describe the Contractor's training program including identification of responsibility for training employees to assure understanding of safe work practices, hazard recognition, and appropriate responses for protective and/or emergency countermeasures, including training to meet Federal, State, and Local regulatory requirements. In doing so, the Contractor will factor parallel requirements found in other mandates such as environmental protection (example: 29 CFR 1910.38 for emergency action plans and fire prevention plans versus EPA Resource Conservation & Recovery Act (RCRA) and Emergency Planning and Community Right-to-Know (EPCRA)).

4.2 Describe approach to identifying training needs including traceability to exercises such as job safety analyses, performance evaluation profiles, hazard analyses, mishap investigations, trend analyses, etc.

4.3 Describe approach to training personnel in the proper use and care of personal protective equipment (PPE).

4.4 Discuss tailoring of training towards specific audiences (management, supervisors, and employees) and topics (safety orientation for new hires, specific training for certain tasks or operations).

4.5 Discuss approach to ensure that training is retained and practiced. Discuss personnel certification programs. Certifications should include documentation that training requirements and physical conditions have been satisfied (examples include physical examination, testing, and on-the-job performance).

4.6 Address utilization of JSC safety and health training resources (such as asbestos worker training/certification, hazard communication, confined space entry, lockout/tagout, etc.) as appropriate with particular emphasis on programs designed for the multiple employer work environment on NASA property. If the Contractor wishes to train their personnel in any regulatory mandated training, an agreement will be secured with JSC Occupational Safety Branch and Occupational Health and Test Support office prior to beginning training. The agreement will ensure that safety and health training resources available from NASA are utilized where appropriate.

4.7 Discuss approach to making all training materials and training records available to NASA, and other Federal, state, and local agencies for their review upon request.

Signatures include contractor's project manager and designated safety official, NASA COTR, JSC Occupational Safety Branch, JA Safety Manager, & CO. Other signatures per government request.

1. DRD Title IMOC Safety Summary Report (SSR)	2. Date of current version 11/08	3. DRL Line Item No. 1.9.1-b	RFP/Contract No. (Procurement completes) NNJ09HA15C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) The Safety Summary Report provides information on accidents affecting the contractor's performance.		5. DRD Category: (<i>check one</i>) <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <input type="checkbox"/> Technical <input checked="" type="checkbox"/> Administrative <input type="checkbox"/> SR&QA </div> </div>	
6. References (<i>Optional</i>)	7. Interrelationships (<i>e.g., with other DRDs</i>) (<i>Optional</i>) IMOC Safety and Health Plan Note: This DRD may be initially satisfied by the corresponding SPOC deliverable. If the SPOC deliverable is utilized, another deliverable that meets all the requirements in this DRD will be required after SPOC, October 1, 2010.		
8. Preparation Information (<i>Include complete instructions for document preparation</i>)			

SCOPE: The Safety Summary Report provides information on accidents affecting the contractor's performance.

CONTENTS: The SSR shall contain the following information:

1. Number of man-hours worked.
2. Number of new Day Away From Work cases.
3. Number of days away from work for the month (including previous month's cases from the current fiscal year reporting period).
4. Number of Restricted Duty or Job Transfer cases.
5. Number of restricted or job transfer days.
6. Number of Remained at Work (Other Recordable) cases.
7. Number of first aid cases.
8. Number of miles driven in Government-provided vehicles.
9. Number of vehicle accidents with damage greater than \$1000.
10. Total damage cost due to motor vehicle accidents resulting in damage > \$1,000.
11. Number of accidents which resulted in NASA property damage greater than \$1000.
12. Total damage cost to NASA property as a result of accident resulting in damage > \$1,000.
13. Number of Incident Reports (NASA form 1627 or equivalent) for incidents which occurred during the reporting period.
14. Status on all open incident reports from previous months of the current fiscal year.
15. Number and report on any OSHA or EPA violations or inspections.
16. Number of personnel injured at work.

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1. DRD Title IMOC Monthly Safety and Health Metrics	2. Date of current version 11/08	3. DRL Line Item No. 1.9.1-c	RFP/Contract No. (Procurement completes) NNJ09HA15C						
4. Use (Define need for, intended use of, and/or anticipated results of data) Establishes selected Safety and Health Program metrics. ***The Office of Primary Responsibility for this DRD is the JSC Safety, Reliability, and Quality Assurance Office		5. DRD Category: (check one) <table style="width: 100%;"> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Technical</td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td>Administrative</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>SR&QA</td> </tr> </table>		<input type="checkbox"/>	Technical	<input checked="" type="checkbox"/>	Administrative	<input type="checkbox"/>	SR&QA
<input type="checkbox"/>	Technical								
<input checked="" type="checkbox"/>	Administrative								
<input type="checkbox"/>	SR&QA								
6. References (Optional) JPG 1700.1 JSC Safety and Health handbook	7. Interrelationships (e.g., with other DRDs) (Optional) IMOC Safety and Health Plan Note: This DRD may be initially satisfied by the corresponding SPOC deliverable. If the SPOC deliverable is utilized, another deliverable that meets all the requirements in this DRD will be required after SPOC, October 1, 2010.								
8. Preparation Information (Include complete instructions for document preparation)									

SCOPE:

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

CONTENT:

For definitions of terms below, refer to JPG 1700.1 and OSHA requirements.

I. Management Commitment and Employee Involvement.

Date of Management Safety Committee Meeting		Type/Title of Meeting	No. of Managers attending		No. of supervisors attending		No. of non-supervisory attending	
			This month	Year to date	This month	Year to date	This month	Year to date

Include electronic copies of minutes or representative information

No. of Employee Safety Meeting		Type/Title of Meeting	No. of Employees attending		No. of managers/supervisors attending	
			This month	Year to date	This month	Year to date

Include electronic copies of minutes or representative information

II. Worksite Analysis. Refer to JPG 1700.1 for definitions of terms.

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Division	No. of Hazard Analyses				No. of Job Safety Analyses				No. of Routine Inspections			
	Required		Performed		Required		Performed		Required		Performed	
	This month	Year to Date	This month	Year to Date	This month	Year to Date	This month	Year to Date	This month	Year to Date	This month	Year to Date
Total												

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

No. of Hazards found			No. of Hazards closed <30 days			No. of Hazards open <30 days	No. of Hazards open >30 days			No. of Hazards closed >30 days			No. of JF1240s in place
Prior to month	This month	Year to date	Prior to month	This month	Year to date		Prior to month	This month	Year to date	Prior to month	This month	Year to date	

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

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

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

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1. DRD Title IMOC Safety and Health Program Self Evaluation	2. Date of current version 11/08	3. DRL Line Item No. 1.9.1-d	RFP/Contract No. (Procurement completes) NNJ09HA15C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) Self evaluation of Contractor's safety and health program performance.		5. DRD Category: (<i>check one</i>) <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <input type="checkbox"/> <input checked="" type="checkbox"/> </div> <div> Technical Administrative SR&QA </div> </div>	
6. References (<i>Optional</i>)	7. Interrelationships (<i>e.g., with other DRDs</i>) (<i>Optional</i>) IMOC Safety and Health Plan Note: This DRD may be initially satisfied by the corresponding SPOC deliverable. If the SPOC deliverable is utilized, another deliverable that meets all the requirements in this DRD will be required after SPOC, October 1, 2010.		

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

Format per OSHA TED 8.4, Voluntary Protection Programs (VPP) Policies and Procedures Manual, Appendix D, "Annual Submissions."

SCOPE:

The self evaluation provides information on the effectiveness on the Contractor's safety and health management system.

CONTENT:

1. The Contractor must conduct an annual self-evaluation of its safety and health program as required by its safety and health plan.
2. Information required:
 - a. The internal assessment of safety and health program effectiveness during the report period (i.e., the previous year) indicating the status of goals or objectives previously established and areas of strength and weakness in Contractor safety program performance.
 - b. Safety and health concerns and resolutions relating to JSC operations which may have been identified during the report period.
 - c. Unresolved safety and health concerns relating to JSC operations which the Contractor feels merit attention of JSC safety and health management.
 - d. The goals and objectives of the Contractor safety and health program for the next report period.
 - e. An analysis of the contractor's performance at JSC-administered establishments in each of the 32 Voluntary Protection Program sub-elements found in the Federal Register Notice 65:45649-45663, July 24, 2000.
 - f. Attach action plans for identified problem areas. Action plans must include schedule for periodic progress reports to the Government on a frequency agreed to by the Government and the Contractor for each problem area.
3. Contractors who have submitted a written self-evaluation as a VPP site may submit their original report to JSC in lieu of writing a new self-evaluation provided that all action plans and status are updated.
4. The self-evaluation shall as a minimum cover the elements of the approved safety and health plan.

1. DRD Title Environmental and Energy Consuming Product Compliance Reports	2. Date of current version 11/08	3. DRL Line Item No. 1.9.3	RFP/Contract No. (Procurement completes) NNJ09HA15C
4. Use (Define need for, intended use of, and/or anticipated results of data) Used to complete JSC's required annual report to NASA HQ on affirmative procurement, waste reduction, energy efficient product procurement, and ozone depleting substances.		5. DRD Category: (check one) <input checked="" type="checkbox"/> Technical <input type="checkbox"/> Administrative <input type="checkbox"/> SR&QA	
6. References (Optional) JPR 8550.1, JPR 8553.1	7. Interrelationships (e.g., with other DRDs) (Optional)		

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

For Section I and III, where the Contractor does not purchase any designated product during the fiscal year, the report shall be a statement to that effect.

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

Fiscal year is the Federal Government fiscal year and is defined as October 1 through September 30.

This DRD applies only to activities conducted on-site at JSC, Ellington Field, Sonny Carter Training Facility, and El Paso Forward Operating Location.

I. Annual Affirmative Procurement Report

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

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

II.a Waste Reduction Activity Report

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

II.b For Construction/Facility Modification Contracts Only:

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

III. Annual Energy Efficiency Product Procurement Report

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

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

IV. Ozone Depleting Substances (ODS) Reports

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

- a. A list of the names of all EPA-Certified service technicians employed and their certification dates
- b. A list of any ODS recovery/recycling equipment that will be used and copy of the 40 CFR 82.162 EPA registration
- c. A list of any refrigeration/air conditioning units with a full charge of more than 50 pounds, not previously reported, including
 - i. any identifying equipment numbers
 - ii. the location of the equipment (building/room)
 - iii. the owning organization or contract name and number
 - iv. a narrative description of the equipment.
- v. refrigeration or air conditioning equipment with a full charge of > 50 pounds, permanently removed from service during the year.

1. DRD Title IMOC Quality Management Plan	2. Date of current version 11/08	3. DRL Line Item No. 1.10	RFP/Contract No. NNJ09HA15C
4. Use (Define need for, intended use of, and/or anticipated results of data) The Quality Management Plan is used to document the specific details of the contractor's Quality Management System (QMS) related to a specific product or process.		5. DRD Category: (check one) <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> </div> <div> Technical Administrative SR&QA </div> </div>	
6. References (Optional) ANSI/ISO/ASQ Q9001-2000 Quality Management Systems - Requirements	7. Interrelationships (e.g., with other DRDs) (Optional) IMOC Management Plan Note: This DRD may be initially satisfied by the corresponding SPOC deliverable. If the SPOC deliverable is utilized, another deliverable that meets all the requirements in this DRD will be required after SPOC, October 1, 2010.		
8. Preparation Information (Include complete instructions for document preparation)			

SCOPE:

A contract specific Quality Management Plan shall be prepared which identifies activities performed both on-site and off-site of JSC to ensure quality products, processes and services. The Quality Management Plan shall be submitted with the Contractor's proposal. The Contracting Officer, concurrent with Contract award, will approve the plan.

CONTENTS: The Quality Management Plan shall address each element of the ANSI-ISO/ASQ Q9001-2000 standard demonstrating the contractors understanding, implementation, methods, procedures, and controls required to fulfill the contract. Requirements are identified below:

1. Provide a list of current procedures that support the ANSI-ISO/ASQ Q9001-2000 elements.
2. Explain how the contractor will ensure timely review of technical documents that affect quality and changes thereto.
3. Describe participation including responsibilities/activities in design reviews.
4. Explain process for including NASA in the contractor's review of purchasing documents for delegation determination.
5. Explain how the contractor will monitor, measure, and control the quality of products produced by the contractor and subcontractors. Explain how the contractor will ensure that products, which do not conform to product requirements, are identified and controlled to prevent their unintended use or delivery.
6. Describe methodology for inspection and test planning (economical and effective use of personnel, facilities and equipment).
7. Describe methodology/criteria for assigning itinerate or resident quality assurance personnel at subcontractor or supplier facilities.
8. Explain how the contractor will establish and implement the inspection or other activities necessary for ensuring that purchased product meets specified purchase requirements.

9. Explain how the contractor will verify that all personnel performing work affecting product quality are competent as a result of appropriate education, training, skills, and experience. In addition explain the system the contractor will use to monitor and maintain this level of personnel competency required during the duration of the contract.
10. Describe responsibilities and requirements for planning and conducting audits (internal and external), and for reporting results and maintaining records.
11. Explain how the contractor will be involved in waivers and deviations when quality assurance is affected.
12. Explain methods for measuring the achievement of quality objectives.
13. Explain the processes the contractor will implement to report problems, corrective actions, and resolution verification to the designated NASA Quality Organization.
14. Explain process for determining appropriate quality indices and measurements and reporting those to designated Quality organization in a timely fashion.

1. DRD Title IMOC Flight Rules Production Plan	2. Date of current version 11/08	3. DRL Line Item No. 2.3.2	RFP/Contract No. (Procurement completes) NNJ09HA15C
4. Use (Define need for, intended use of, and/or anticipated results of data) Flight rules publication and change processing to support flight preparation and flight execution.		5. DRD Category: (check one) <input checked="" type="checkbox"/> Technical <input type="checkbox"/> Administrative <input type="checkbox"/> SR&QA	
6. References (Optional) SOW 2.3.2, Flight Requirements Document USA 009141 Generic Flight Rules Evaluation Process, USA 009995 Flight-Specific Flight Rules Evaluation	7. Interrelationships (e.g., with other DRDs) (Optional) Note: This DRD may be initially satisfied by the corresponding SPOC deliverable. If the SPOC deliverable is utilized, another deliverable that meets all the requirements in this DRD will be required after SPOC, October 1, 2010.		

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

SCOPE:

Flight rules publication and change processing to support flight preparation and flight execution.

CONTENTS: Contractor shall develop a plan to detail flight rules production including all Flight and Flight Specific Flight Rules publication and change processing, documentation for Flight Rules Control Board, Flight Technique Technical Forums, Joint Operations Panels, and other related technical flight rules forums. Changes for Generic Flight Rules and Flight Specific Rules should be incorporated as required by page change or complete revision and/or electronically via the baseline MOD operations electronic documentation system for distribution within and external to the MCC.

The plan will incorporate the following schedules:

- a) All-Flight Rules and Flight Specific Rules - Submit All-Flight Rules per periodic update schedule. Submit Flight Specific Flight Rules per flight specific schedules.
- b) Documentation for Flight Rules - Submit per Flight Rules Control Board schedule.
- c) Documentation for Flight Techniques - Submit per Flight Techniques Panel schedules.
- d) Documentation for JOP and other required forums - Submit per JOP schedules.

1. DRD Title IMOC Guide for Editorial and Logistical Support to Operations Documentation	2. Date of current version 11/08	3. DRL Line Item No. 2.3.3	RFP/Contract No. (Procurement completes) NNJ09HA15C
4. Use (Define need for, intended use of, and/or anticipated results of data) To define the editorial and logistical requirements of operations documentation, provide documented procedures required for delivery of each product, and provide consistent product standards.		5. DRD Category: (check one) <input checked="" type="checkbox"/> Technical <input type="checkbox"/> Administrative <input type="checkbox"/> SR&QA	
6. References (Optional) SOW 2.3.3; Flight Requirements Document (FRD); USA002604 Flight Data File/Operations Data File Operations Product Handbook and Glossary	7. Interrelationships (e.g., with other DRDs) (Optional)		

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

SCOPE: The Guide for Editorial Support to Operations Documentation provides information on the product delivery requirements and the procedures, dependencies, and quality assurance requirements used in the editorial support of Operations Documentation (ISS and Cx) products. Operations Documentation includes, but is not limited to, crew procedures books, flight controller procedures book, and technical ground support documentation.

CONTENTS: The Guide for Editorial Support to Operations Documentation shall include, but not be limited to, the following functional areas of Operations Documentation (ISS and Cx):

- a) Operations Documentation (ISS and Cx) Flight Set - Flight and flight-like sets will consist of flight quality copies of the procedures in book or electronic file format as appropriate. Additionally, the flight set will contain quantities and related Operations Documentation (ISS and Cx) aids, e.g., cue cards, overlays, flipbooks, maps, floppy disks, tethers, post-it-notes, cuff checklists, etc., as specified in the mission/increment specific manifest.
- b) Associated documentation – technical ground support documentation, source data, rationale and as-flown configuration information relating to the Operations Documentation (ISS and Cx), e.g., vehicle and payload operations data, Flight Controller Procedures Handbooks, PV/DSI records, configuration records, etc.
- c) Specification standards and process documentation: Flight materials and process configuration management plans and Operations Documentation Control Board support plans. Process for support to ensure operations documentation is true to the content of the owner's input and publication by the book managers need date or as negotiated. Process must include steps to ensure coordination between the editorial support and the applicable book manager for the operations documentation.

REMARKS: Some terminology used in the DRD for Cx Operations Documentation and Cx Operations Documentation associated data is being developed and is based on the historical FDF/ODF counterpart to convey the nature of the data required.

1. DRD Title IMOC MOD Library Handbook and Glossary	2. Date of current version 11/08	3. DRL Line Item No. 2.3.5	RFP/Contract No. (Procurement completes) NNJ09HA15C						
4. Use (Define need for, intended use of, and/or anticipated results of data) To define the libraries to be managed and staffed and the products/services to be provided by each library.		5. DRD Category: (check one) <table style="border: none;"> <tr> <td style="border: 1px solid black; width: 20px; height: 20px; text-align: center; vertical-align: middle;"><input checked="" type="checkbox"/></td> <td>Technical</td> </tr> <tr> <td style="border: 1px solid black; width: 20px; height: 20px; text-align: center; vertical-align: middle;"><input type="checkbox"/></td> <td>Administrative</td> </tr> <tr> <td style="border: 1px solid black; width: 20px; height: 20px; text-align: center; vertical-align: middle;"><input type="checkbox"/></td> <td>SR&QA</td> </tr> </table>		<input checked="" type="checkbox"/>	Technical	<input type="checkbox"/>	Administrative	<input type="checkbox"/>	SR&QA
<input checked="" type="checkbox"/>	Technical								
<input type="checkbox"/>	Administrative								
<input type="checkbox"/>	SR&QA								
6. References (Optional)	7. Interrelationships (e.g., with other DRDs) (Optional)								
8. Preparation Information (Include complete instructions for document preparation)									

SCOPE: The MOD Library Handbook and Glossary provides the detailed library definitions and processes for maintaining the MOD Libraries and console documentation in order to effectively and efficiently support day-to-day office operations of MOD and real-time mission operations.

CONTENTS: The MOD Library Handbook and Glossary shall include the following content:

- (a) definitions of the libraries to be managed and staffed
- (b) general content of the libraries
- (c) summary of each library's operating process (i.e. customers supported, hours of operation, computer systems associated with the library's operations, services provided, etc.)

Technical Data Services:

i. Library Collections:

1. Collection/File Maintenance

- a. Ongoing assessments of library collection to assure currency and verify electronic availability of hardcopy data.
- b. Shift collections to make room for new items
- c. Label folders, binders, shelving
- d. Update documents
- e. Archive to Federal Records Center, as appropriate
- f. Eliminate duplication with other JSC libraries.

2. Perform Checkout/in of training materials, reference data, etc.

3. Organize collections for fast retrieval

4. Perform Archival of library collections as required

ii. Customer Service:

1. Research Assistance for Engineering Data (known-item searches, keyword searches)

2. Maintain proficiency in conducting research on JSC and NASA electronic repositories (EDMS, COSMOS, EDCC, DIS, VMDB, SELS, whatever electronic systems are defined for Cx).

3. Provide training on use of JSC electronic repositories

4. Plot/print engineering drawings

iii. Maintain QMS Master Lists

iv. Verification tasks

1. MOD CoFR process – organize and retain MOD CoFR material

2. Drawings, Technical Data (Electronic or Hardcopy) - verify library maintaining the most current releases of all documentation.

- (d) process for maintaining the documentation on-console for both pre-flight and real-time mission operations
- (e) examples of the support services provided in the MCC

Real-Time Support Services:

1. On-site Printing and distribution capabilities. Turn-around time: TBD (would depend on product).
 - i. Flight Products
 - ii. Press Kits for MER, CSR and Action Center
 - iii. MCC Flight Distribution Lists
 - iv. Assist Book Managers with updates and distribution requirements
2. Administrative Flight Support (Starts L-1 week, through flight, and landing).
 - i. Conference Room Management (we currently have 5 conference rooms that are managed).
 1. Includes maintaining on-line calendars, scheduling of conference rooms, helping "bumped" users find a new conference room)
 2. Provide Training on usage and setup of equipment in conference rooms
 3. Room logistics (clean-up, verifying equipment is in working order, schedule maintenance, equipment repairs)
 - ii. Documentation Updates (FDF, Flight Rules, Handbooks...not sure where to draw the line here...this is also listed under the Technical Data Services section. Probably should only have it in the DRD once, and the contractor can figure out how to implement it).
 - iii. Flight Recorder updates
 - iv. Order supplies (printers, office supplies)
 - v. Assign headset lockers
 - vi. Maintain list of console telephone numbers

NNJ09HA15C
Integrated Mission Operations Contract

1. DRD Title IMOC Certification of Flight Readiness (CoFR) Documentation	2. Date of current version 11/08	3. DRL Line Item No. 3.3.4	RFP/Contract No. (Procurement completes) NNJ09HA15C
4. Use (Define need for, intended use of, and/or anticipated results of data) The Certification of Flight Readiness Endorsement defines contractor's responsibilities and product/process status for certifying mission readiness.		5. DRD Category: (check one) <input checked="" type="checkbox"/> Technical <input type="checkbox"/> Administrative <input type="checkbox"/> SR&QA	
6. References (Optional) MOD ISS Certification of Flight Readiness (CoFR) Implementation Plan (JSC-28140) SSP 50108 Certification of Flight Readiness for Space Station	7. Interrelationships (e.g., with other DRDs) (Optional) Note: This DRD may be initially satisfied by the corresponding SPOC deliverable. If the SPOC deliverable is utilized, another deliverable that meets all the requirements in this DRD will be required after SPOC, October 1, 2010.		

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

SCOPE: The Certification of Flight Readiness Endorsement defines contractor's responsibilities and product/process status for certifying mission readiness.

CONTENTS: Data shall include all processes and products specified in the reference documents, as well as any necessary supporting data, required to satisfy the contractor's responsibilities and readiness to support the mission operations as defined in the applicable documents.

NNJ09HA15C
Integrated Mission Operations Contract

1. DRD Title IMOC Training Quality Reports	2. Date of current version 11/08	3. DRL Line Item No. 4.1	RFP/Contract No. (Procurement completes) NNJ09HA15C
4. Use (<i>Define need for, intended use of, and/or anticipated results of data</i>) To document quality of MOD-provided flight operations curriculum, simulations and lessons.		5. DRD Category: (<i>check one</i>) <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; width: 20px; height: 20px; margin-right: 5px; display: flex; flex-direction: column; justify-content: space-around;"> <div style="width: 100%; height: 100%; border: 1px solid black; position: relative;"> X </div> </div> <div style="font-size: 10px;"> <p>Technical</p> <p>Administrative</p> <p>SR&QA</p> </div> </div>	
6. References (<i>Optional</i>)	7. Interrelationships (<i>e.g., with other DRDs</i>) (<i>Optional</i>) Note: This DRD may be initially satisfied by the corresponding SPOC deliverable. If the SPOC deliverable is utilized, another deliverable that meets all the requirements in this DRD will be required after SPOC, October 1, 2010. When this capability is covered by STAR, the IMOC DRD 4.1 Training Quality Reports will no longer be required.		

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

Scope - Curriculum and lesson feedback data shall document appraisals of MOD flight operations training as delivered to flight crews, flight controllers, Instructors, Analysts, and all other MOD personnel.

Content –

The Contractor shall collect and maintain student feedback data on lesson quality and performance including:

- a) Lesson data collected should appraise: lesson effectiveness, lesson efficiency, and placement in the curriculum.
- b) Instructor performance data collected should appraise: instructor’s presentation and technical competence.

The Contractor shall collect and maintain student feedback data on simulation quality and performance including:

- a) Simulation data collected should appraise: script effectiveness, model accuracy, realism of cases and data
- b) Instructor performance data collected should appraise: Instructor’s responsiveness to issues, instructor’s technical competence, instructor’s communication effectiveness.

This DRD will be retired when an electronic collection system is available to perform these functions (i.e. STAR).

ATTACHMENT J-10

STATEMENT OF EQUIVALENT RATES FOR FEDERAL HIRES

ATTACHMENT J-10

STATEMENT OF EQUIVALENT RATES FOR FEDERAL HIRES

THIS STATEMENT IS FOR INFORMATION ONLY: IT
IS NOT A WAGE DETERMINATION

Employee Class	Monetary Wage - Fringe Benefits
	\$ -See below*
	\$ -See below*
	\$ -See below*

Drafter, II	GS-4	\$14.81	
Drafter, III	GS-5	\$16.57	
Drafter, IV	GS-7	\$20.52	
Technical Writer	GS-11	\$30.37	
Computer Operator, I	GS-4	\$14.81	
Computer Operator, II	GS-5	\$16.57	
Computer Operator, III	GS-6	\$18.47	
Computer Operator, IV	GS-7	\$20.52	
Engineering Tech., I	GS-3	\$13.19	
Engineering Tech., II	GS-4	\$14.81	
Engineering Tech., III	GS-5	\$16.57	
Engineering Tech., IV	GS-7	\$20.52	
Engineering Tech., V	GS-9	\$25.10	
Engineering Tech., VI	GS-11	\$30.37	
Secretary, I	GS-4	\$14.81	
Secretary, II	GS-5	\$16.57	
Secretary, III	GS-6	\$18.47	
Secretary, IV	GS-7	\$20.52	
Word Processor, I	GS-3	\$13.19	
Word Processor, II	GS-4	\$14.81	
Word Processor, III	GS-5	\$16.57	

The monetary wages (hourly rates) are computed in accordance with FAR 22.1016(b).

* Fringes are as follows:

1. Holidays: New Year's Day, Martin Luther King's Birthday, Washington's Birthday, Memorial Day, Independence Day, Labor Day, Columbus Day, Veteran's Day, Thanksgiving Day, Christmas Day, and Inauguration Day (when applicable).

2. Annual Leave: Two hours of annual leave each week for an employee with less than three years service; three hours of annual leave each week for an employee with three but less than fifteen years of service; and four hours of annual leave each week for an employee with fifteen or more years of service.
3. Sick Leave: Two hours of sick leave each week for all employees.
4. Life insurance, health insurance, workers' compensation, and Federal Insurance Compensation Act (for temporary employees) at 7 percent of basic hourly rate.
5. Retirement: 7.0 percent of basic hourly rates for employees hired through December 31, 1985. Retirement at 0.8 percent for employees hired on January 1, 1986, or after.
6. Medicare: 1.45 percent of basic hourly rates for all employees.
7. Social Security: 6.2 percent of basic hourly rates for employees hired on or after January 1, 1986, up to a maximum gross annual salary of \$80,400.

(End of clause)

ATTACHMENT J-11
WAGE DETERMINATIONS

STANDARD FORM e98 U.S. DEPARTMENT OF LABOR EMPLOYMENT STANDARDS ADMINISTRATION	NOTICE OF INTENTION TO MAKE A SERVICE CONTRACT AND RESPONSE TO NOTICE <i>(See Instructions on Reverse)</i>	1. NOTICE NO. NASA 58497
---	--	---

EMAILED TO: <p style="text-align: center;">Administrator Wage and Hour Division <i>U.S. Department of Labor</i> Washington, DC 20210</p>	2. Estimated solicitation date (use numerals) <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:33%;">Month</td> <td style="width:33%;">Day</td> <td style="width:33%;">Year</td> </tr> <tr> <td style="text-align: center;">01</td> <td style="text-align: center;">15</td> <td style="text-align: center;">08</td> </tr> </table>	Month	Day	Year	01	15	08
Month	Day	Year					
01	15	08					
	3. Estimated date bids or proposals to be opened or negotiations begun (use numerals) <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:33%;">Month</td> <td style="width:33%;">Day</td> <td style="width:33%;">Year</td> </tr> <tr> <td style="text-align: center;">03</td> <td style="text-align: center;">20</td> <td style="text-align: center;">08</td> </tr> </table>	Month	Day	Year	03	20	08
Month	Day	Year					
03	20	08					
	4. Date contract performance to begin (use numerals) <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:33%;">Month</td> <td style="width:33%;">Day</td> <td style="width:33%;">Year</td> </tr> <tr> <td style="text-align: center;">10</td> <td style="text-align: center;">01</td> <td style="text-align: center;">08</td> </tr> </table>	Month	Day	Year	10	01	08
Month	Day	Year					
10	01	08					

5. PLACE(S) OF PERFORMANCE Harris County, TX	6. SERVICES TO BE PERFORMED (describe) II: Integrated Mission Operations Contract Contract Period: 10/01/08 to 09/30/09
--	--

7. INFORMATION ABOUT PERFORMANCE		
A. <input type="checkbox"/> Services now performed by a Contractor	B. <input type="checkbox"/> Services now performed by Federal employees	C. <input type="checkbox"/> Services not presently being performed

8. IF BOX A IN ITEM 7 IS MARKED, COMPLETE ITEM 8 AS APPLICABLE	
a. Name and address of incumbent contractor United Space Alliance 1150 Gemini Ave Houston, TX 77058-3696	b. Number(s) of any wage determination(s) in incumbent's contract 2005-2516

c. Name(s) of union(s) if services are being performed under collective bargaining agreement(s). Important: Attach copies of current applicable collective bargaining agreements None	RESPONSE TO NOTICE <i>(by Department of Labor)</i> A. <input checked="" type="checkbox"/> The attached wage determination(s) listed below apply to procurement. WD 2005-2516, Rev 7
---	---

9. OFFICIAL SUBMITTING NOTICE		B. <input type="checkbox"/> As of this date, no wage determination applicable to the specified locality and classes of employees is in effect. C. <input type="checkbox"/> From information supplied, the Service Contract Act does not apply (<i>see attached explanation</i>). D. <input type="checkbox"/> Notice returned for additional information (<i>see attached explanation</i>)
SIGNED: Original signed by	DATE 06/23/08	
TYPE OR PRINT NAME Connie R. Pritchard Contract Labor Relations Officer	TELEPHONE NO. 281-483-4121	

10. TYPE OR PRINT NAME AND TITLE OF PERSON TO WHOM RESPONSE IS TO BE SENT AND NAME AND ADDRESS OF DEPARTMENT OR AGENCY, BUREAU, DIVISION, ETC.

NASA Johnson Space Center

**Connie R. Pritchard, Mail Code BA2
2101 NASA Parkway
Houston, TX 77058-3696**

Signed: _____

(U.S. Department of Labor)

(Date)

98-103

COMPUTER-GENERATED

1/96

REGISTER OF WAGE DETERMINATIONS UNDER THE SERVICE CONTRACT ACT By direction of the Secretary of Labor	U.S. DEPARTMENT OF LABOR EMPLOYMENT STANDARDS ADMINISTRATION WAGE AND HOUR DIVISION WASHINGTON, D.C. 20210
Shirley F. Ebbesen Division of Wage Director Determinations	Wage Determination No.: 2005-2516 Revision No.: 7 Date of Last Revision: 06/17/2008

State: Texas

Area: Texas Counties of Austin, Brazoria, Chambers, Colorado, Fort Bend, Galveston, Grimes, Harris, Houston, Jackson, Lavaca, Liberty, Madison, Matagorda, Montgomery, San Jacinto, Trinity, Walker, Waller, Washington, Wharton

****Fringe Benefits Required Follow the Occupational Listing****

OCCUPATION CODE - TITLE	MINIMUM WAGE RATE
01000 - Administrative Support And Clerical Occupations	
01011 - Accounting Clerk I	14 .58
01012 - Accounting Clerk II	16 .38
01013 - Accounting Clerk III	18 .32
01020 - Administrative Assistant	23 .55
01040 - Court Reporter	21 .79
01051 - Data Entry Operator I	11 .67
01052 - Data Entry Operator II	14 .32
01060 - Dispatcher, Motor Vehicle	15 .40
01070 - Document Preparation Clerk	13 .41
01090 - Duplicating Machine Operator	13 .41
01111 - General Clerk I	10 .80
01112 - General Clerk II	12 .97
01113 - General Clerk III	14 .88
01120 - Housing Referral Assistant	20 .55
01141 - Messenger Courier	11 .95
01191 - Order Clerk I	13 .52

01192 - Order Clerk II	15 .24
01261 - Personnel Assistant (Employment) I	14 .74
01262 - Personnel Assistant (Employment) II	16 .50
01263 - Personnel Assistant (Employment) III	18 .38
01270 - Production Control Clerk	19 .10
01280 - Receptionist	12 .02
01290 - Rental Clerk	14 .75
01300 - Scheduler, Maintenance	15 .92
01311 - Secretary I	15 .92
01312 - Secretary II	17 .73
01313 - Secretary III	20 .55
01320 - Service Order Dispatcher	14 .63
01410 - Supply Technician	23 .55
01420 - Survey Worker	16 .59
01531 - Travel Clerk I	13 .17
01532 - Travel Clerk II	14 .22
01533 - Travel Clerk III	15 .20
01611 - Word Processor I	12 .27
01612 - Word Processor II	14 .75
01613 - Word Processor III	16 .59
05000 - Automotive Service Occupations	
05005 - Automobile Body Repairer, Fiberglass	24 .80
05010 - Automotive Electrician	22 .66
05040 - Automotive Glass Installer	21 .68
05070 - Automotive Worker	20 .91
05110 - Mobile Equipment Servicer	19 .27
05130 - Motor Equipment Metal Mechanic	24 .53
05160 - Motor Equipment Metal Worker	20 .91
05190 - Motor Vehicle Mechanic	24 .53
05220 - Motor Vehicle Mechanic Helper	18 .48
05250 - Motor Vehicle Upholstery Worker	19 .84
05280 - Motor Vehicle Wrecker	20 .91
05310 - Painter, Automotive	22 .66
05340 - Radiator Repair Specialist	22 .88

05370 - Tire Repairer	14 .40
05400 - Transmission Repair Specialist	25 .17
07000 - Food Preparation And Service Occupations	
07010 - Baker	10 .04
07041 - Cook I	8 .65
07042 - Cook II	9 .89
07070 - Dishwasher	8 .11
07130 - Food Service Worker	8 .87
07210 - Meat Cutter	12 .36
07260 - Waiter/Waitress	7 .97
09000 - Furniture Maintenance And Repair Occupations	
09010 - Electrostatic Spray Painter	16 .65
09040 - Furniture Handler	11 .74
09080 - Furniture Refinisher	16 .09
09090 - Furniture Refinisher Helper	13 .74
09110 - Furniture Repairer, Minor	15 .29
09130 - Upholsterer	16 .65
11000 - General Services And Support Occupations	
11030 - Cleaner, Vehicles	9 .90
11060 - Elevator Operator	8 .17
11090 - Gardener	14 .52
11122 - Housekeeping Aide	8 .17
11150 - Janitor	8 .17
11210 - Laborer, Grounds Maintenance	10 .93
11240 - Maid or Houseman	7 .73
11260 - Pruner	8 .99
11270 - Tractor Operator	12 .82
11330 - Trail Maintenance Worker	10 .93
11360 - Window Cleaner	8 .92
12000 - Health Occupations	
12010 - Ambulance Driver	14 .22
12011 - Breath Alcohol Technician	15 .64
12012 - Certified Occupational Therapist Assistant	19 .58

12015 - Certified Physical Therapist Assistant	20 .48
12020 - Dental Assistant	15 .64
12025 - Dental Hygienist	32 .49
12030 - EKG Technician	23 .56
12035 - Electroneurodiagnostic Technologist	23 .56
12040 - Emergency Medical Technician	14 .22
12071 - Licensed Practical Nurse I	18 .29
12072 - Licensed Practical Nurse II	20 .52
12073 - Licensed Practical Nurse III	22 .09
12100 - Medical Assistant	12 .40
12130 - Medical Laboratory Technician	15 .25
12160 - Medical Record Clerk	13 .21
12190 - Medical Record Technician	16 .02
12195 - Medical Transcriptionist	16 .40
12210 - Nuclear Medicine Technologist	31 .94
12221 - Nursing Assistant I	7 .08
12222 - Nursing Assistant II	9 .82
12223 - Nursing Assistant III	10 .62
12224 - Nursing Assistant IV	12 .40
12235 - Optical Dispenser	15 .26
12236 - Optical Technician	13 .90
12250 - Pharmacy Technician	17 .44
12280 - Phlebotomist	13 .30
12305 - Radiologic Technologist	24 .27
12311 - Registered Nurse I	28 .55
12312 - Registered Nurse II	33 .22
12313 - Registered Nurse II, Specialist	35 .29
12314 - Registered Nurse III	42 .25
12315 - Registered Nurse III, Anesthetist	42 .25
12316 - Registered Nurse IV	50 .64
12317 - Scheduler (Drug and Alcohol Testing)	19 .86
13000 - Information And Arts Occupations	
13011 - Exhibits Specialist I	19 .30
13012 - Exhibits Specialist II	24 .74

13013 - Exhibits Specialist III	28 .94
13041 - Illustrator I	18 .07
13042 - Illustrator II	22 .56
13043 - Illustrator III	27 .38
13047 - Librarian	26 .69
13050 - Library Aide/Clerk	10 .00
13054 - Library Information Technology Systems Administrator	24 .09
13058 - Library Technician	14 .58
13061 - Media Specialist I	17 .39
13062 - Media Specialist II	19 .46
13063 - Media Specialist III	21 .68
13071 - Photographer I	13 .93
13072 - Photographer II	17 .60
13073 - Photographer III	22 .56
13074 - Photographer IV	26 .40
13075 - Photographer V	30 .06
13110 - Video Teleconference Technician	15 .21
14000 - Information Technology Occupations	
14041 - Computer Operator I	16 .26
14042 - Computer Operator II	18 .19
14043 - Computer Operator III	20 .28
14044 - Computer Operator IV	22 .60
14045 - Computer Operator V	24 .95
14071 - Computer Programmer I (1)	23 .23
14072 - Computer Programmer II (1)	
14073 - Computer Programmer III (1)	
14074 - Computer Programmer IV (1)	
14101 - Computer Systems Analyst I (1)	
14102 - Computer Systems Analyst II (1)	
14103 - Computer Systems Analyst III (1)	
14150 - Peripheral Equipment Operator	16 .26
14160 - Personal Computer Support Technician	22 .60

15000 - Instructional Occupations

15010 - Aircrew Training Devices Instructor (Non-Rated)	30 .06
15020 - Aircrew Training Devices Instructor (Rated)	36 .39
15030 - Air Crew Training Devices Instructor (Pilot)	43 .20
15050 - Computer Based Training Specialist / Instructor	28 .27
15060 - Educational Technologist	29 .02
15070 - Flight Instructor (Pilot)	43 .20
15080 - Graphic Artist	23 .11
15090 - Technical Instructor	20 .99
15095 - Technical Instructor/Course Developer	25 .68
15110 - Test Proctor	18 .43
15120 - Tutor	18 .43

16000 - Laundry, Dry-Cleaning, Pressing And Related Occupations

16010 - Assembler	9 .03
16030 - Counter Attendant	9 .03
16040 - Dry Cleaner	10 .89
16070 - Finisher, Flatwork, Machine	9 .03
16090 - Presser, Hand	9 .03
16110 - Presser, Machine, Drycleaning	9 .03
16130 - Presser, Machine, Shirts	9 .03
16160 - Presser, Machine, Wearing Apparel, Laundry	9 .03
16190 - Sewing Machine Operator	12 .26
16220 - Tailor	13 .20
16250 - Washer, Machine	9 .91

19000 - Machine Tool Operation And Repair Occupations

19010 - Machine-Tool Operator (Tool Room)	18 .32
19040 - Tool And Die Maker	21 .12

21000 - Materials Handling And Packing Occupations

21020 - Forklift Operator	12 .84
21030 - Material Coordinator	18 .58
21040 - Material Expediter	18 .58
21050 - Material Handling Laborer	12 .26

21071 - Order Filler	11 .46
21080 - Production Line Worker (Food Processing)	12 .84
21110 - Shipping Packer	13 .82
21130 - Shipping/Receiving Clerk	13 .82
21140 - Store Worker I	10 .53
21150 - Stock Clerk	14 .93
21210 - Tools And Parts Attendant	13 .58
21410 - Warehouse Specialist	12 .84
23000 - Mechanics And Maintenance And Repair Occupations	
23010 - Aerospace Structural Welder	28 .07
23021 - Aircraft Mechanic I	26 .73
23022 - Aircraft Mechanic II	28 .07
23023 - Aircraft Mechanic III	29 .47
23040 - Aircraft Mechanic Helper	20 .93
23050 - Aircraft, Painter	24 .39
23060 - Aircraft Servicer	23 .28
23080 - Aircraft Worker	24 .53
23110 - Appliance Mechanic	17 .26
23120 - Bicycle Repairer	13 .91
23125 - Cable Splicer	24 .90
23130 - Carpenter, Maintenance	18 .58
23140 - Carpet Layer	16 .21
23160 - Electrician, Maintenance	26 .51
23181 - Electronics Technician Maintenance I	19 .33
23182 - Electronics Technician Maintenance II	23 .28
23183 - Electronics Technician Maintenance III	24 .48
23260 - Fabric Worker	15 .97
23290 - Fire Alarm System Mechanic	18 .14
23310 - Fire Extinguisher Repairer	14 .78
23311 - Fuel Distribution System Mechanic	19 .17
23312 - Fuel Distribution System Operator	16 .33
23370 - General Maintenance Worker	17 .01
23380 - Ground Support Equipment Mechanic	26 .73
23381 - Ground Support Equipment Servicer	23 .28

23382 - Ground Support Equipment Worker	24 .53
23391 - Gunsmith I	14 .78
23392 - Gunsmith II	17 .07
23393 - Gunsmith III	19 .16
23410 - Heating, Ventilation And Air-Conditioning Mechanic	20 .06
23411 - Heating, Ventilation And Air Conditioning Mechanic (Research Facility)	20 .93
23430 - Heavy Equipment Mechanic	17 .68
23440 - Heavy Equipment Operator	18 .14
23460 - Instrument Mechanic	21 .38
23465 - Laboratory/Shelter Mechanic	18 .23
23470 - Laborer	10 .97
23510 - Locksmith	17 .26
23530 - Machinery Maintenance Mechanic	20 .81
23550 - Machinist, Maintenance	20 .16
23580 - Maintenance Trades Helper	13 .58
23591 - Metrology Technician I	21 .38
23592 - Metrology Technician II	22 .31
23593 - Metrology Technician III	23 .25
23640 - Millwright	20 .48
23710 - Office Appliance Repairer	17 .26
23760 - Painter, Maintenance	17 .26
23790 - Pipefitter, Maintenance	19 .44
23810 - Plumber, Maintenance	18 .98
23820 - Pneudraulic Systems Mechanic	19 .16
23850 - Rigger	19 .47
23870 - Scale Mechanic	17 .07
23890 - Sheet-Metal Worker, Maintenance	18 .14
23910 - Small Engine Mechanic	17 .07
23931 - Telecommunications Mechanic I	23 .20
23932 - Telecommunications Mechanic II	24 .23
23950 - Telephone Lineman	23 .20
23960 - Welder, Combination, Maintenance	19 .16
23965 - Well Driller	19 .16
23970 - Woodcraft Worker	19 .16

23980 - Woodworker	13 .67
24000 - Personal Needs Occupations	
24570 - Child Care Attendant	9 .68
24580 - Child Care Center Clerk	12 .06
24610 - Chore Aide	6 .54
24620 - Family Readiness And Support Services Coordinator	11 .43
24630 - Homemaker	15 .41
25000 - Plant And System Operations Occupations	
25010 - Boiler Tender	21 .14
25040 - Sewage Plant Operator	17 .00
25070 - Stationary Engineer	21 .14
25190 - Ventilation Equipment Tender	14 .33
25210 - Water Treatment Plant Operator	16 .65
27000 - Protective Service Occupations	
27004 - Alarm Monitor	14 .82
27007 - Baggage Inspector	10 .14
27008 - Corrections Officer	18 .04
27010 - Court Security Officer	18 .04
27030 - Detection Dog Handler	17 .90
27040 - Detention Officer	18 .04
27070 - Firefighter	17 .90
27101 - Guard I	10 .14
27102 - Guard II	17 .90
27131 - Police Officer I	23 .33
27132 - Police Officer II	25 .99
28000 - Recreation Occupations	
28041 - Carnival Equipment Operator	10 .69
28042 - Carnival Equipment Repairer	11 .24
28043 - Carnival Equipment Worker	8 .25
28210 - Gate Attendant/Gate Tender	13 .90
28310 - Lifeguard	12 .38
28350 - Park Attendant (Aide)	15 .55
28510 - Recreation Aide/Health Facility Attendant	11 .35

28515 - Recreation Specialist	17 .83
28630 - Sports Official	12 .38
28690 - Swimming Pool Operator	15 .85
29000 - Stevedoring/Longshoremen Occupational Services	
29010 - Blocker And Bracer	17 .78
29020 - Hatch Tender	17 .78
29030 - Line Handler	17 .78
29041 - Stevedore I	16 .63
29042 - Stevedore II	18 .93
30000 - Technical Occupations	
30010 - Air Traffic Control Specialist, Center (HFO) (2)	38 .22
30011 - Air Traffic Control Specialist, Station (HFO) (2)	26 .36
30012 - Air Traffic Control Specialist, Terminal (HFO) (2)	29 .02
30021 - Archeological Technician I	19 .34
30022 - Archeological Technician II	23 .15
30023 - Archeological Technician III	28 .91
30030 - Cartographic Technician	28 .67
30040 - Civil Engineering Technician	27 .30
30061 - Drafter/CAD Operator I	19 .18
30062 - Drafter/CAD Operator II	23 .15
30063 - Drafter/CAD Operator III	25 .80
30064 - Drafter/CAD Operator IV	29 .47
30081 - Engineering Technician I	16 .59
30082 - Engineering Technician II	20 .41
30083 - Engineering Technician III	22 .83
30084 - Engineering Technician IV	28 .28
30085 - Engineering Technician V	36 .15
30086 - Engineering Technician VI	41 .85
30090 - Environmental Technician	27 .24
30210 - Laboratory Technician	23 .55
30240 - Mathematical Technician	28 .67
30361 - Paralegal/Legal Assistant I	19 .94
30362 - Paralegal/Legal Assistant II	24 .71
30363 - Paralegal/Legal Assistant III	30 .22

30364 - Paralegal/Legal Assistant IV	35 .81
30390 - Photo-Optics Technician	28 .67
30461 - Technical Writer I	20 .79
30462 - Technical Writer II	25 .43
30463 - Technical Writer III	29 .06
30491 - Unexploded Ordnance (UXO) Technician I	24 .29
30492 - Unexploded Ordnance (UXO) Technician II	29 .39
30493 - Unexploded Ordnance (UXO) Technician III	35 .23
30494 - Unexploded (UXO) Safety Escort	24 .29
30495 - Unexploded (UXO) Sweep Personnel	24 .29
30620 - Weather Observer, Combined Upper Air Or Surface Programs (2)	23 .95
30621 - Weather Observer, Senior (2)	27 .71
31000 - Transportation/Mobile Equipment Operation Occupations	
31020 - Bus Aide	10 .55
31030 - Bus Driver	15 .48
31043 - Driver Courier	12 .73
31260 - Parking and Lot Attendant	8 .34
31290 - Shuttle Bus Driver	13 .87
31310 - Taxi Driver	10 .49
31361 - Truckdriver, Light	13 .87
31362 - Truckdriver, Medium	17 .23
31363 - Truckdriver, Heavy	18 .99
31364 - Truckdriver, Tractor-Trailer	18 .99
99000 - Miscellaneous Occupations	
99030 - Cashier	9 .10
99050 - Desk Clerk	10 .65
99095 - Embalmer	21 .55
99251 - Laboratory Animal Caretaker I	9 .49
99252 - Laboratory Animal Caretaker II	10 .62
99310 - Mortician	24 .04
99410 - Pest Controller	14 .21
99510 - Photofinishing Worker	10 .43
99710 - Recycling Laborer	13 .60
99711 - Recycling Specialist	16 .58

99730 - Refuse Collector	12 .13
99810 - Sales Clerk	11 .41
99820 - School Crossing Guard	9 .05
99830 - Survey Party Chief	20 .96
99831 - Surveying Aide	14 .35
99832 - Surveying Technician	18 .13
99840 - Vending Machine Attendant	12 .00
99841 - Vending Machine Repairer	14 .41
99842 - Vending Machine Repairer Helper	12 .31

ALL OCCUPATIONS LISTED ABOVE RECEIVE THE FOLLOWING BENEFITS:

HEALTH & WELFARE: Life, accident, and health insurance plans, sick leave, pension plans, civic and personal leave, severance pay, and savings and thrift plans. Minimum employer contributions costing an average of \$3.24 per hour computed on the basis of all hours worked by service employees employed on the contract.

VACATION: 2 weeks paid vacation after 1 year of service with a contractor or successor; 3 weeks after 5 years, and 4 weeks after 15 years. Length of service includes the whole span of continuous service with the present contractor or successor, wherever employed, and with the predecessor contractors in the performance of similar work at the same Federal facility. (Reg. 29 CFR 4.173)

HOLIDAYS: A minimum of ten paid holidays per year, New Year's Day, Martin Luther King Jr's Birthday, Washington's Birthday, Memorial Day, Independence Day, Labor Day, Columbus Day, Veterans' Day, Thanksgiving Day, and Christmas Day. (A contractor may substitute for any of the named holidays another day off with pay in accordance with a plan communicated to the employees involved.) (See 29 CFR 4174)

THE OCCUPATIONS WHICH HAVE PARENTHESES AFTER THEM RECEIVE THE FOLLOWING BENEFITS (as numbered):

1) Under the SCA at section 8(b), this wage determination does not apply to any employee who individually qualifies as a bona fide executive, administrative, or professional employee as defined in 29 C.F.R. Part 541. Because most Computer System Analysts and Computer Programmers who are compensated at a rate not less than \$27.63 (or on a salary or fee basis at a rate not less than \$455 per week) an hour would likely qualify as exempt computer professionals, (29 C.F.R. 541.400) wage rates may not be listed on this wage determination for all occupations within those job families. In addition, because this wage determination may not list a wage rate for some or all occupations within those job families if the survey data indicates that the prevailing wage rate for the occupation equals or exceeds \$27.63 per hour conformances may be necessary for certain nonexempt employees. For example, if an individual employee is nonexempt but nevertheless performs duties within the scope of one of the Computer Systems Analyst or Computer Programmer occupations for which this wage determination does not specify an SCA wage rate, then the wage rate for that employee must be conformed in accordance with the conformance procedures described in the conformance note included on this wage determination.

Additionally, because job titles vary widely and change quickly in the computer industry, job titles are not determinative of the application of the computer professional exemption. Therefore, the exemption applies only to computer employees who satisfy the compensation requirements and whose primary duty consists of:

(1) The application of systems analysis techniques and procedures, including consulting with users, to determine

hardware, software or system functional specifications;

(2) The design, development, documentation, analysis, creation, testing or modification of computer systems or programs, including prototypes, based on and related to user or system design specifications;

(3) The design, documentation, testing, creation or modification of computer programs related to machine operating systems; or

(4) A combination of the aforementioned duties, the performance of which requires the same level of skills. (29 C.F.R. 541.400).

2) AIR TRAFFIC CONTROLLERS AND WEATHER OBSERVERS - NIGHT PAY & SUNDAY PAY: If you work at night as part of a regular tour of duty, you will earn a night differential and receive an additional 10% of basic pay for any hours worked between 6pm and 6am. If you are a full-time employed (40 hours a week) and Sunday is part of your regularly scheduled workweek, you are paid at your rate of basic pay plus a Sunday premium of 25% of your basic rate for each hour of Sunday work which is not overtime (i.e. occasional work on Sunday outside the normal tour of duty is considered overtime work).

HAZARDOUS PAY DIFFERENTIAL: An 8 percent differential is applicable to employees employed in a position that represents a high degree of hazard when working with or in close proximity to ordnance, explosives, and incendiary materials. This includes work such as screening, blending, dying, mixing, and pressing of sensitive ordnance, explosives, and pyrotechnic compositions such as lead azide, black powder and photoflash powder. All dry-house activities involving propellants or explosives. Demilitarization, modification, renovation, demolition, and maintenance operations on sensitive ordnance, explosives and incendiary materials. All operations involving regrading and cleaning of artillery ranges.

A 4 percent differential is applicable to employees employed in a position that represents a low degree of hazard when working with, or in close proximity to ordnance, (or employees possibly adjacent to) explosives and incendiary materials which involves potential injury such as laceration of hands, face, or arms of the employee engaged in the operation, irritation of the skin, minor burns and the like; minimal damage to immediate or adjacent work area or equipment being used. All operations involving, unloading, storage, and hauling of ordnance, explosive, and incendiary ordnance material other than small arms ammunition. These differentials are only applicable to work that has been specifically designated by the agency for ordnance, explosives, and incendiary material differential pay.

**** UNIFORM ALLOWANCE ****

If employees are required to wear uniforms in the performance of this contract (either by the terms of the Government contract, by the employer, by the state or local law, etc.), the cost of furnishing such uniforms and maintaining (by laundering or dry cleaning) such uniforms is an expense that may not be borne by an employee where such cost reduces the hourly rate below that required by the wage determination. The Department of Labor will accept payment in accordance with the following standards as compliance:

The contractor or subcontractor is required to furnish all employees with an adequate number of uniforms without cost or to reimburse employees for the actual cost of the uniforms. In addition, where uniform cleaning and maintenance is made the responsibility of the employee, all contractors and subcontractors subject to this wage determination shall (in the absence of a bona fide collective bargaining agreement providing for a different amount, or the furnishing of contrary affirmative proof as to the actual cost), reimburse all employees for such cleaning and maintenance at a rate of \$3.35 per week (or \$.67 cents per day). However, in those instances where the uniforms furnished are made of "wash and wear" materials, may be routinely washed and dried with other personal garments, and do not require any special treatment such as dry cleaning, daily washing, or commercial laundering in order to meet the cleanliness or appearance standards set by the terms of the Government contract, by the contractor, by law, or by the nature of the work, there is no requirement that employees be reimbursed for uniform maintenance costs.

The duties of employees under job titles listed are those described in the "Service Contract Act Directory of Occupations", Fifth Edition, April 2006, unless otherwise indicated. Copies of the Directory are available on the Internet. A links to the Directory may be found on the WHD home page at <http://www.dol.gov/esa/whd/> or through the Wage Determinations On-Line (WDOL) Web site at <http://wdol.gov/>.

REQUEST FOR AUTHORIZATION OF ADDITIONAL CLASSIFICATION AND WAGE RATE {Standard Form 1444 (SF 1444)}

Conformance Process:

The contracting officer shall require that any class of service employee which is not listed herein and which is to be employed under the contract (i.e., the work to be performed is not performed by any classification listed in the wage determination), be classified by the contractor so as to provide a reasonable relationship (i.e., appropriate level of skill comparison) between such unlisted classifications and the classifications listed in the wage determination. Such conformed classes of employees shall be paid the monetary wages and furnished the fringe benefits as are determined. Such conforming process shall be initiated by the contractor prior to the performance of contract work by such unlisted class(es) of employees. The conformed classification, wage rate, and/or fringe benefits shall be retroactive to the commencement date of the contract. {See Section 4.6 (C)(vi)} When multiple wage determinations are included in a contract, a separate SF 1444 should be prepared for each wage determination to which a class(es) is to be conformed.

The process for preparing a conformance request is as follows:

- 1) When preparing the bid, the contractor identifies the need for a conformed occupation(s) and computes a proposed rate(s).
- 2) After contract award, the contractor prepares a written report listing in order proposed classification title(s), a Federal grade equivalency (FGE) for each proposed classification(s), job description(s), and rationale for proposed wage rate(s), including information regarding the agreement or disagreement of the authorized representative of the employees involved, or where there is no authorized representative, the employees themselves. This report should be submitted to the contracting officer no later than 30 days after such unlisted class(es) of employees performs any contract work.
- 3) The contracting officer reviews the proposed action and promptly submits a report of the action, together with the agency's recommendations and pertinent information including the position of the contractor and the employees, to the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, for review. (See section 4.6(b)(2) of Regulations 29 CFR Part 4).
- 4) Within 30 days of receipt, the Wage and Hour Division approves, modifies, or disapproves the action via transmittal to the agency contracting officer, or notifies the contracting officer that additional time will be required to process the request.
- 5) The contracting officer transmits the Wage and Hour decision to the contractor.
- 6) The contractor informs the affected employees.

Information required by the Regulations must be submitted on SF 1444 or bond paper.

When preparing a conformance request, the "Service Contract Act Directory of Occupations" (the Directory) should be used to compare job definitions to insure that duties requested are not performed by a classification already listed in the wage determination. Remember, it is not the job title, but the required tasks that determine whether a class is included in an established wage determination. Conformances may not be used to artificially split, combine, or subdivide classifications listed in the wage determination.

ATTACHMENT J-13
PERSONAL IDENTITY VERIFICATION (PIV) CARD ISSUANCE
PROCEDURES

ATTACHMENT J-13

PERSONAL IDENTITY VERIFICATION (PIV) CARD ISSUANCE
PROCEDURES

PIV Card Issuance Procedures in accordance with FAR clause 52.204-9, Personal Identity Verification of Contractor Personnel

FIPS 201 Appendix A graphically displays the following procedure for the issuance of a PIV credential.

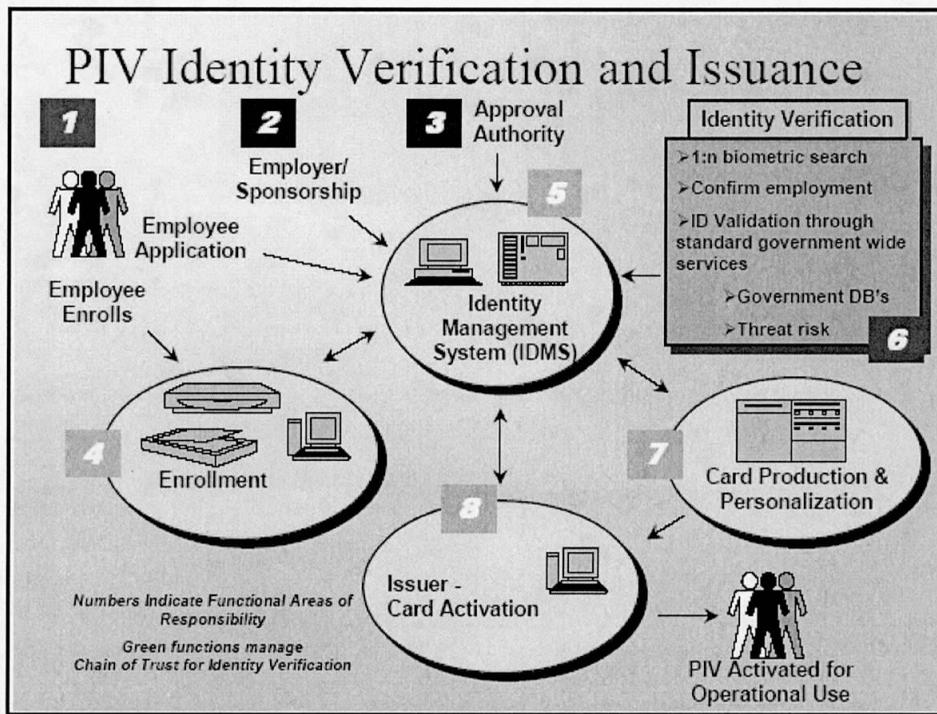


Figure A-1, FIPS 201, Appendix A

The following steps describe the procedures for the NASA Personal Identity Verification Card Issuance (PCI) of a PIV credential:

Step 1:

The Contractor's Corporate Security Officer (CSO), Program Manager (PM), or Facility Security Officer (FSO) submits a formal letter that provides a list of contract employees (applicant) names requesting access to the NASA Contracting Officer's Technical Representative (COTR). In the case of a foreign national applicant, approval through the NASA Foreign National Management System (NFMMS) must be obtained for the visit or assignment before any processing for a PIV credential can take place. Further, if the foreign national is not under a contract where a COTR has been officially designated, the foreign national will provide the information directly to their visit/assignment host, and the host sponsor will fulfill the duties of the COTR mentioned herein. In each case, the letter

shall provide notification of the contract or foreign national employee's (hereafter the "applicant") full name (first, middle and last), social security number (SSN) or NASA Foreign National Management System Visitor Number if the foreign national does not have a SSN, and date of birth. If the contract employee has a current satisfactorily completed National Agency Check with Inquiries (NACI) or an equivalent or higher degree of background investigation, the letter shall indicate the type of investigation, the agency completing the investigation, and date the investigation was completed. Further, the letter shall also acknowledge that contract employees may be denied access to NASA information or information systems based on an unsatisfactory background investigation/adjudication. .

After reviewing the letter for completeness the COTR/host must forward the letter to the Center Chief of Security (CCS). The CCS shall review the OPM databases (e.g., Defense Clearance Investigations Index (DCII), PIP, et al.), and take appropriate steps to validate the applicant's investigation status. Requirements for a NACI or other investigation shall be initiated only if necessary.

Applicants who do not currently possess the required level of background investigation shall be directed to the e-QIP web site to complete the necessary background investigation forms online. The CCS shall provide to the COTR/host information and instructions on how to access the e-QIP for each contract or foreign national employee requiring access

Step 2:

Upon acceptance of the letter/background information, the applicant will be advised that in order to complete the investigative process, he or she must appear in-person before the authorized PIV registrar and submit two forms of identity source documents in original form. The identity source documents must come from the list of acceptable documents included in Form I-9, Employment Eligibility Verification, one which must be a Federal¹ or State issued picture identification. Fingerprints will be taken at this time. The applicant must appear **no later than** the entry on duty date.

When the applicant appears, the registrar will electronically scan the submitted documents; any document that appears invalid will be rejected by the registrar. The registrar will capture electronically both a facial image and fingerprints of the applicant. The information submitted by the applicant will be used to create or update the applicant identity record in the Identity Management System (IDMS).

Step 3:

Upon the applicant's completion of the investigative document, the CCS reviews the information, and resolves discrepancies with the applicant as necessary. When the applicant has appeared in person and completed fingerprints, the package is electronically submitted to initiate the NACI. The CCS includes a request for feedback on the NAC portion of the NACI at the time the request is submitted.

¹ A non-PIV government identification badge, including the NASA Photo Identification Badge, MAY NOT BE USED for the original issuance of a PIV vetted credential

Step 4:

Prior to authorizing physical access of a contractor employee to a federally-controlled facility or access to a Federal information system, the CCS will ensure that a check has been performed with the National Crime Information Center (NCIC) and Interstate Identification Index. In the case of a foreign national, a national check of the Bureau of Immigration and Customs Enforcement (BICE) database will be performed for each applicant. If this process yields negative information, the CCS will immediately notify the COTR/host of the determination regarding access made by the CCS.

Step 5:

Upon receipt of the completed NAC, the CCS will update IDMS from the NAC portion of the NACI and indicate the result of the suitability determination. If an unsatisfactory suitability determination is rendered, the COTR will advise the contractor that the employee is being denied physical access to all federally-controlled facilities and Federal information systems.

Based on a favorable NAC and NCIC/III or BICE check, the CCS will authorize the issuance of a PIV federal credential in the Physical Access Control System (PACS) database. The CCS, based on information provided by the COTR/host, will determine what physical access the applicant should be granted once the PIV issues the credential.

Step 6:

Using the information provided by the applicant during his or her in-person appearance, the PIV card production facility creates and instantiates the approved PIV card for the applicant with an activation date commensurate with the applicant's start date.

Step 7:

The applicant proceeds to the credential issuance facility to begin processing for receipt of his/her federal credential.

The applicant provides to the credential issuing operator proof of identity with documentation that meets the requirements of FIPS 201 (DHS Employment Eligibility Verification (Form I-9) documents. These documents **must** be the same documents submitted for registration.

The credential issuing operator will verify that the facial image, and optionally reference finger print, matches the enrollment data used to produce the card. Upon verification of identity, the operator will locate the employee's record in the PACS database, and modify the record to indicate the PIV card has been issued. The applicant will select a PIN for use with his or her new PIV card. Although root data is inaccessible to the operator, certain fields (hair color, eye color, et al.) may be modified to more accurately record the employee's information.

The applicant proceeds to a kiosk or other workstation to complete activation of the PIV card using the initial PIN entered at card issuance.

**ALTERNATIVE FOR APPLICANTS WHO DO NOT HAVE A COMPLETED AND
ADJUDICATED NAC AT THE TIME OF ENTRANCE ON DUTY**

Steps 1 through 4 shall be accomplished for all applicants in accordance with the process described above. If the applicant is unable to appear in person until the time of entry on duty, or does not, for any other reason, have a completed and adjudicated NAC portion of the NACI at the time of entrance on duty, the following interim procedures shall apply.

1. If the documents required to submit the NACI have not been completed prior to EOD, the applicant will be instructed to complete all remaining requirements for submission of the investigation request. This includes presentation of I-9 documents and completion of fingerprints, if not already accomplished. If the applicant fails to complete these activities as prescribed in NPR 1600.1 (Chapters 3 & 4), it may be considered as failure to meet the conditions required for physical access to a federally-controlled facility or access to a Federal information system, and result in denial of such access.
2. Based on favorable results of the NCIC, the applicant shall be issued a temporary NASA identification card for a period not-to-exceed six months. If at the end of the six month period the NAC results have not been returned, the agency will at that time make a determination if an additional extension will be granted for the temporary identification card.
3. Upon return of the completed NAC, the process will continue from Step 5.

ATTACHMENT J-14

DD FORM 254

DEPARTMENT OF DEFENSE CONTRACT SECURITY CLASSIFICATION SPECIFICATION <i>(The requirements of the DoD Industrial Security Manual apply to all aspects of this effort)</i>				1. CLEARANCE AND SAFEGUARDING a. FACILITY CLEARANCE REQUIRED <input checked="" type="checkbox"/>			
b. LEVEL OF SAFEGUARDING REQUIRED <input checked="" type="checkbox"/>							
2. THIS SPECIFICATION IS FOR: (X and complete as applicable)			3. THIS SPECIFICATION IS: (X and complete as applicable)				
<input checked="" type="checkbox"/>	a. PRIME CONTRACT NUMBER NNJ09HA15C	<input checked="" type="checkbox"/>	a. ORIGINAL (Complete date in all cases)		Date (YYMMDD)		
<input type="checkbox"/>	b. SUBCONTRACT NUMBER	<input type="checkbox"/>	b. REVISED (Supersedes all previous specs)	Revision No.	Date (YYMMDD)		
	c. SOLICITATION OR OTHER NUMBER NNJ07221364R-A	<input type="checkbox"/>	c. FINAL (Complete item 5 in all cases)		Date (YYMMDD)		
4. IS THIS A FOLLOW-ON CONTRACT? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO. If Yes complete the following Classified material received or generated under _____ (Preceding Contract Number) is transferred to this follow-on contract							
5. IS THIS A FINAL DD FORM 254? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO. If Yes complete the following In response to the contractor's request dated <u>N/A</u> , retention of the identified classified material is authorized for the period of <u>N/A</u> .							
6. CONTRACTOR (Include Commercial and Government Entity (CAGE) Code)							
a. NAME, ADDRESS, AND ZIP CODE		b. CAGE CODE	c. COGNIZANT SECURITY OFFICE (Name, Address, and Zip Code)				
			DSS-Defense Security Service				
7. SUBCONTRACTOR							
a. NAME, ADDRESS, AND ZIP CODE		b. CAGE CODE	c. COGNIZANT SECURITY OFFICES (Name, Address, and Zip Code)				
8. ACTUAL PERFORMANCE							
a. LOCATION		b. CAGE CODE	c. COGNIZANT SECURITY OFFICE (Name, Address, and Zip Code)				
NASA/Johnson Space Center 2101 NASA Parkway Houston, TX 77058-3696		N/A	N/A				
9. GENERAL IDENTIFICATION OF THIS PROCUREMENT							
10. THIS CONTRACT WILL REQUIRE ACCESS TO:							
	YES	NO	11. IN PERFORMING THIS CONTRACT, THE CONTRACTOR WILL:		YES	NO	
a. COMMUNICATIONS SECURITY (COMSEC) INFORMATION	X		a. HAVE ACCESS TO CLASSIFIED INFORMATION ONLY AT ANOTHER CONTRACTOR'S FACILITY OR A GOVERNMENT ACTIVITY		X		
b. RESTRICTED DATA		X	b. RECEIVE CLASSIFIED DOCUMENTS ONLY			X	
c. CRITICAL NUCLEAR WEAPON DESIGN INFORMATION		X	c. RECEIVE AND GENERATE CLASSIFIED MATERIAL			X	
d. FORMERLY RESTRICTED DATA		X	d. FABRICATE, MODIFY, OR STORE CLASSIFIED HARDWARE			X	
e. INTELLIGENCE INFORMATION:			e. PERFORM SERVICES ONLY			X	
(1) Sensitive Compartmented Information (SCI)		X	f. HAVE ACCESS TO U.S. CLASSIFIED INFORMATION OUTSIDE THE U.S., PUERTO RICO, U.S. POSSESSIONS AND TRUST TERRITORIES			X	
(2) Non-SCI		X	g. BE AUTHORIZED TO USE THE SERVICES OF DEFENSE TECHNICAL INFORMATION CENTER (DTIC) OR OTHER SECONDARY DISTRIBUTION CENTER			X	
f. SPECIAL ACCESS INFORMATION		X	h. REQUIRE A COMSEC ACCOUNT			X	
g. NATO INFORMATION		X	i. HAVE A TEMPEST REQUIREMENT			X	
h. FOREIGN GOVERNMENT INFORMATION		X	j. HAVE OPERATIONS SECURITY (OPSEC) REQUIREMENTS			X	
i. LIMITED DISSEMINATION INFORMATION		X	k. BE AUTHORIZED TO USE THE DEFENSE COURIER SERVICE			X	
j. FOR OFFICIAL USE ONLY INFORMATION	X		l. OTHER (Specify). SEE BLOCK 13 REMARKS				
k. OTHER (Specify)		X					

J-14 DD Form 254

12. PUBLIC RELEASE. Any information (classified or unclassified) pertaining to this contract shall not be released for public dissemination except as provided by the industrial Security Manual or unless it has been approved for public release by appropriate U.S. Government authority. Proposed public release shall be submitted for approval prior to release

Direct

Through (Specify):

NASA/Johnson Space Center AP/Public Affairs Office Houston, TX 77058-3696

To the Office of Public Affairs, National Aeronautics and Space Administration, Washington, DC 20546, for review.

to the Directorate for Freedom of Information and Security Review, Office of the Assistant Secretary of Defense (Public Affairs)* for review.
*In the case of non-DoD User Agencies, requests for disclosure shall be submitted to that agency.

13. SECURITY GUIDANCE. The security classification guidance needed for this effort is identified below. If any difficulty is encountered in applying this guidance or if any other contributing factor indicates a need for changes in this guidance, the contractor is authorized and encouraged to provide recommended changes: to challenge the guidance or classification assigned to any information or material furnished or generated under this contract; and to submit any questions for interpretation of this guidance to the official identified below. Pending final decision, the information involved shall be handled and protected at the highest level of classification assigned or recommended. (Fill in as appropriate for the classified effort. Attach, or forward under separate correspondence, any document/guides/extracts referenced herein. Add additional pages as needed to provide complete guidance.)

Performance of this contract will not involve the receipt, generation, and storage of classified information at the contractor's facility; therefore, classified material cannot be sent to the contractor under this contract. Access to classified information/areas will occur only at the user agency (NASA/JSC). Only U.S. citizens granted a final personnel security clearances are eligible for access to classified material. The contractor must meet and comply with the facility clearance requirements for SECRET and the industrial security requirements for access to classified information at the SECRET level in accordance with the National Industrial Security Program Operating Manual, DOD 5220.22-M, dated February 28, 2006 and other NASA/JSC security procedures and guidelines.

The place of performance will be at JSC and other locations where the requirement is covered by the obligations specified in Section C of the basic contract document. The period of performance is from Month/Day/Year, through Month/Day/Year. (When contract has been awarded)

Questions or request concerning clarification or interpretation regarding security requirements shall be directed to the NASA/JSC Industrial Security Specialist at 281-483-6700.

"THIS DD FORM 254 IS ISSUED FOR PRE-AWARD PURPOSES ONLY."

14. ADDITIONAL SECURITY REQUIREMENTS. Requirements, in addition to ISM requirements, are established for this contract. (If Yes, identify the pertinent contractual clauses in the contract document itself, or provide an appropriate statement which identifies the additional requirements. Provide a copy of the requirements to the cognizant security office. Use Item 13 if additional space is needed.)

Yes No

(a) National Industrial Security Program Operating Manual, DOD 5220.22-M, dated February 28, 2006; (b) JSC Security Handbooks, Manuals, Regulations, Instructions, and Directives (current editions as of the date of Contract Award), as well as any other applicable policies and procedures set forth within the Contract and as identified by NASA.

15. INSPECTIONS. Elements of this contract are outside the inspection responsibility of the cognizant security office. (If Yes, explain and identify specific areas or elements carved out and the activity responsible for inspections. Use Item 13 if additional space is needed.)

Yes No

16. CERTIFICATION AND SIGNATURE. Security requirements stated herein are complete and adequate for safeguarding the classified information to be released or generated under this classified effort. All questions shall be referred to the official named below.

a. TYPED NAME OF CERTIFYING OFFICIAL Wayne Sings	b. TITLE Security Specialist	c. TELEPHONE (Include Area Code) 281-483-6700
---	---------------------------------	--

d. ADDRESS (Include ZIP Code)
2101 NASA Parkway
Houston, Texas

e. SIGNATURE

17. REQUIRED DISTRIBUTION

<input checked="" type="checkbox"/>	a. CONTRACTOR
<input type="checkbox"/>	b. SUBCONTRACTOR
<input checked="" type="checkbox"/>	c. COGNIZANT SECURITY OFFICE FOR PRIME AND SUBCONTRACTOR
<input type="checkbox"/>	d. U.S. ACTIVITY RESPONSIBLE FOR OVERSEAS SECURITY ADMINISTRATION
<input type="checkbox"/>	e. ADMINISTRATIVE CONTRACTING OFFICER
<input type="checkbox"/>	f. OTHERS AS NECESSARY

ATTACHMENT J-15
SAFETY AND HEALTH PLAN

ATTACHMENT J-17
GOVERNMENT OCI ASSESSMENT OF IMOC



National Aeronautics and Space Administration



Johnson Space Center (JSC)
Mission Operations Directorate (MOD)

**Government Organizational
Conflict of Interest (OCI)
Assessment of IMOC**

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Integrated Mission Operations Contract (IMOC)

IMOC

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1. OVERVIEW

1.1. Purpose

In accordance with the Federal Acquisition Regulations (FAR) Subpart 9.5 “Organizational and Consultant Conflicts of Interest”, and the NASA FAR Supplement (NFS) Subpart 1809.5, the purpose of this document is to detail the Government’s assessment of Organizational Conflicts of Interest (OCI) on the Integrated Mission Operations Contract (IMOC). Specifically, this document:

- a) Identifies and evaluates any actual or potential OCI contained in IMOC; and
- b) Defines the Government measures and controls used to avoid, neutralize, or mitigate the identified instances of OCI.

1.2. Roles and Responsibilities

The Government’s roles and responsibilities are to identify and evaluate any OCI concerns before the award of IMOC, in accordance with FAR Subpart 9.5 and NFS Subpart 1809.5, and to institute measures and controls on Government processes to avoid, neutralize, or mitigate those concerns. The Government shall not require the contractor to prepare, or assist in preparing, work statements, specifications, or requirements to be used in competitively acquiring services, or to provide material that would lead directly, predictably and without delay to such work statements, specifications, or requirements unless the intended procurement is a sole source to the contractor, the contractor has participated in the development and design work, or unless more than one contractor has been involved in preparing the work statement. In addition to meeting the requirements outlined in the FAR, this plan provides a framework for identifying, evaluating and addressing future OCI concerns, as they arise, as a consequence of work being performed in furtherance of the IMOC.

The IMOC contractor’s roles and responsibilities are to identify actual or potential conflicts that it has with existing Government contracts or ongoing contract competitions, as a result of the work it is performing under IMOC, and the relationships that it might have with other NASA contractors, in order to fulfill IMOC requirements, and to institute measures and controls on its processes to avoid, neutralize, or mitigate those conflicts. The IMOC contractor’s approach to meeting these roles and responsibilities shall be documented in its OCI plan. The IMOC contractor’s required OCI plan is an integral part of the overall IMOC OCI identification and mitigation strategy and can be found in IMOC DRD 1.1-e, IMOC OCI Avoidance Plan.

1.3. Applicability

This document, in collaboration with the IMOC OCI Avoidance Plan, form the framework for addressing OCI concerns for all work performed under IMOC. This document and the associated IMOC OCI Avoidance Plan shall be reviewed and updated on an annual basis to address changing requirements and updated OCI

plans under IMOC. These two documents taken together satisfy the agreement in the Memorandum of Understanding (MOU) Between United Space Alliance (USA) and National Aeronautics and Space Administration (NASA) for Restructuring of the Mission Operations Directorate (MOD) Support to NASA, dated November 20, 2007, Item 7 which states "The parties agree to create an IMOC Organizational Conflict of Interest (OCI) process and an OCI plan, to identify and address organizational conflicts of interest that may be created by the performance of IMOC, and agree the OCI process and plan must be completed prior to the award of IMOC."

1.4. Additional Clauses

FAR 52.227-14, RIGHTS IN DATA – GENERAL, is incorporated by reference into IMOC. In association with this clause, and in accordance with FAR 9.505(b), the IMOC contractor shall avoid the use of company proprietary data and the creation of proprietary documentation in the performance of work under IMOC. This avoids the creation of an unfair competitive advantage in future procurements concerning the work on IMOC.

Clause H.2, LIMITATION ON FUTURE CONTRACTING, specifies that NASA and the IMOC contractor will make a good-faith effort to avoid, mitigate, or neutralize any OCI issues that may arise in IMOC. This document, the IMOC OCI Avoidance Plan and updates to both documents form the basis of this approach.

Clause H.3, TASK ORDERING PROCEDURE, specifies the process for issuing task orders under IMOC. OCI issues associated with this clause are addressed in Section 2.2.

Clause I.15, NASA FAR Supplement Clause 1852.237-72 ACCESS TO SENSITIVE INFORMATION (JUNE 2005), is incorporated by reference into IMOC.

2. GOVERNMENT OCI ASSESSMENT OF IMOC

The types of OCI are categorized as follows:

- a) Unfair access to data is where a contractor has access to nonpublic information as part of its performance when that information may provide the affirm an unfair competitive advantage in a later competition for a Government contract (See FAR §9.505-4).
- b) Impaired objectivity involves conflicting roles that might bias a contractor's judgment. This conflict contains two elements – the use of subjective judgment by the contractor and whether a contractor has a financial interest in the outcome of its performance. The element regarding financial interest includes the interest of affiliates.
- c) Biased ground-rules involves both bias and unfair competitive advantage. Conflicts regarding "biased ground rules" occur when a contractor can skew a competition, whether intentionally or not, in favor of itself. The Government OCI assessment of IMOC consists of three fundamental components:
 - a. Identification and evaluation of potential OCI concerns in the IMOC Statement of Work (SOW) which includes baseline completion form requirements and the requirements which will be supported via Level-of-Effort (LOE) and Indefinite Delivery Indefinite Quantity (IDIQ) Task Orders under IMOC; and
 - b. Assessment of the execution of IDIQ delivery or task orders and LOE task orders under IMOC; and
 - c. Identification and evaluation of future potential OCI concerns in the NASA change control and design review processes.

A detailed description of the results of the OCI assessment for each area described above follows.

2.1. Assessment of IMOC SOW Requirements (Completion Form, LOE, IDIQ as delineated in IMOC Attachment J-1)

The following is a detailed analysis of the requirements in the IMOC Statement of Work (SOW) to identify and evaluate potential OCI concerns.

Per FAR 9.504 (d), only the SOW requirements that have a potential substantive issue for OCI are addressed below.

Table 2-2. Detailed Assessment of SOW Requirements

SOW No.	SOW Title and Requirement	OCI Type	Evaluation and Actions (if necessary)
1.2	<i>"e. The Contractor shall include recommendations of risk mitigation as part of their assessment."</i>	None	<p>The contractor will provide technical information, analysis, and relevant perspectives gained through operational experience. NASA determines the operational requirements and systems design.</p> <p>The government will address the potential for unequal access to information by providing, to the largest extent practical, a bidder's library of this information for any follow-on procurement activity for this work.</p>
2.2	<i>"The Contractor shall provide assessments and recommendations for NASA on spacecraft and payload safety requirements and compliance."</i>	None	<p>The contractor will provide technical information, analysis, and relevant perspectives gained through operational experience. NASA determines all requirements.</p> <p>The government will address the potential for unequal access to information by providing, to the largest extent practical, a bidder's library of this information for any follow-on procurement activity for this work.</p>
2.5	<i>"The Contractor shall support special Plan-Train-Fly projects. Projects shall be conducted according to the NASA Program and Project Management Processes and Requirements document (NPR 7120.5), the MOP System Engineering Management Plan (CxP - 72132), and the MOD Software Management Plan (JSC 63756). The format and process for reporting on these projects shall be specified by NASA."</i>	Undefined	<p>The Special Development Projects will be evaluated for OCI as Task Orders (T0) are issued in accordance with contract clause H.3.</p>

SOW No.	SOW Title and Requirement	OCI Type	Evaluation and Actions (if necessary)
3.1	<p>DEVELOP MISSION OPERATIONS CAPABILITY AND PROCESSES</p> <p><i>“The Contractor shall provide support to NASA’s development, assessment, and integration of mission design and operations processes including:</i></p> <p><i>a. Supporting the development of operational baselines, operations concepts, mission timelines, and associated documentation.”</i></p>	None	<p>The contractor will provide technical information, analysis, and relevant perspectives gained through operational experience. The government, using subjective judgment, will define the vehicle operational baselines, concepts and timelines.</p> <p>The government will address the potential for unequal access to information by providing, to the largest extent practical, a bidder’s library of this information for any follow-on procurement activity for this work.</p>

SOW No.	SOW Title and Requirement	OCI Type	Evaluation and Actions (if necessary)
3.2.2	<p>VEHICLE REQUIREMENT AND DESIGN SUPPORT</p> <p><i>"The Contractor shall provide operations technical feedback and assessments to the NASA design requirements for vehicle, cargo, flight equipment, and ground systems which includes:</i></p> <ul style="list-style-type: none"> <i>h. Supporting development and design reviews; and technical meetings in order to convey the operations perspective to the design process and gather knowledge.</i> <i>i. Documenting recommendations to support vehicle, cargo, and ground systems design and requirement reviews.</i> <i>e. Providing analysis, concepts of operational scenarios, trade study support, test and verification plan inputs, and lessons learned inputs.</i> <i>f. Providing support for program and project efforts of design engineering, software engineering, specialty engineering, human rating, system architecture, and integrated test planning, system requirements recommendations, configuration control, and risk management activities.</i> 	None	<p>The contractor provides mission operations expertise in the review and assessment of design products, and the formulation of recommendations to NASA. NASA determines all requirements.</p> <p>The government will address the potential for unequal access to information by providing, to the largest extent practical, a bidder's library of this information for any follow-on procurement activity for this work.</p>

SOW No.	SOW Title and Requirement	OCI Type	Evaluation and Actions (if necessary)
3.2.3.1	<p><i>"The Contractor shall participate in the integration of mission requirements, operational implementation concepts, products, and plans by:</i></p> <p><i>a. Supporting derivation of operations baselines and mission architectures requirements.</i></p> <p><i>c. Developing reports, assessments, and technical evaluations in order to effectively assess, verify, and validate program-level requirements and requirement changes that have potential impact to crew procedures, safety, or operations."</i></p>	None	<p>The contractor provides to NASA technical information, analysis, and relevant perspectives gained through operational experience. NASA determines all mission requirements and operational baselines. NASA determines the vehicle and operations architectures and requirements.</p> <p>The government will address the potential for unequal access to information by providing, to the largest extent practical, a bidder's library of this information for any follow-on procurement activity for this work.</p>
3.3.1.1	<p>MISSION PLANNING SUPPORT</p> <p><i>"The Contractor shall provide mission specific and generic planning inputs to NASA's mission planning process to ensure all mission objectives, requirements, and constraints are properly integrated and implemented in the mission plan. NASA determines and manages the planning process and the mission plan. The Contractor shall support NASA's resolution of operational issues and development of products required for mission execution. Mission planning products and activities include the following:</i></p> <p><i>b. The Contractor shall support development of planning products and services including process definition, product content and format, and requirements for planning databases and tools."</i></p>	None	<p>The contractor provides to NASA technical information, analysis, and relevant perspectives gained through operational experience. NASA determines and manages the planning process and the mission plan.</p>

SOW No.	SOW Title and Requirement	OCI Type	Evaluation and Actions (if necessary)
3.4.1	<p>USER APPLICATIONS REQUIREMENTS DEVELOPMENT AND ACCEPTANCE TESTING</p> <p><i>“The Contractor shall provide support to MOD’s development of requirements and user testing and validation for user applications and tools that are used in PTF operations. The process for the development of requirements is defined in the MOD Software Management Plan (JSC 63756).”</i></p>	None	<p>The contractor provides to NASA technical information, analysis, and relevant perspectives gained through operational experience. NASA determines all user application tool requirements.</p>
3.4.2	<p>MISSION SYSTEMS REQUIREMENTS</p> <p><i>“The Contractor shall provide support to MOD’s development of mission systems requirements for mission control, planning, training, and reconfiguration systems such as MCC, Constellation Training Facility (CxTF), Space Station Training Facility (SSTF), part- and full-task simulators (including international partner simulators), Integrated Planning System (IPS), Mission Operations Reconfiguration System (MORS), Core Trajectory System (CTS), Space Vehicle Mockup Facility (SVMF), and Neutral Buoyancy Laboratory (NBL).”</i></p>	None	<p>The contractor provides technical information, analysis, and relevant perspectives gained through operational experience. NASA determines and manages the mission systems requirements for mission control, planning, training, and reconfiguration systems.</p>

SOW No.	SOW Title and Requirement	OCI Type	Evaluation and Actions (if necessary)
4.1	<p>TRAINING MANAGEMENT AND ADMINISTRATION SUPPORT</p> <p><i>“The Contractor shall provide support to NASA for the planning, integration, scheduling, and tracking of domestic and non-domestic crew training; and MOD flight controller, instructor, and analyst training which includes:</i></p> <p><i>a. Developing, documenting, and maintaining integrated processes and databases used to manage training (e.g., crew training budget process, student evaluation process and database, and instructor feedback process).</i></p> <p><i>b. Providing recommendations to support the development, documentation, and maintenance of the MOD training standards and processes utilized in the production of all flight specific and generic training products.</i></p> <p><i>c. Supporting the development of MOD personnel certification requirements, crew training plans, and other documentation used to manage training.”</i></p>	None	<p>The contractor provides technical information, analysis and relevant perspectives for the NASA development of training standards, training requirements, and training management systems. NASA determines and manages the training, certification, and scheduling processes.</p>
4.4.1	<p>FLIGHT CONTROLLER, INSTRUCTOR, AND ANALYST TRAINING REQUIREMENTS</p> <p><i>“The Contractor shall provide support to NASA for the development of generic and mission/increment specific training requirements (skills and objectives based on tasks) and discipline specific certification plans (certification guides) in accordance with MOD Space Flight Personnel Certification Plan (DA-WI-16).”</i></p>	None	<p>The contractor provides technical information, analysis and relevant perspectives for the NASA development of flight controller, instructor and analyst training requirements and certification plans. NASA determines the training and certification requirements, and training plans.</p>

SOW No.	SOW Title and Requirement	OCI Type	Evaluation and Actions (if necessary)
4.4.3	<p>FLIGHT CONTROLLER, INSTRUCTOR, AND ANALYST TRAINING EXECUTION</p> <p><i>"c. Monitoring, evaluating, and providing feedback of student performance."</i></p>	None	<p>The contractor provides feedback to NASA on student performance during flight controller and analyst training. NASA is the certifying authority for all positions. NASA determines the training and certification requirements, and the evaluation processes for certification.</p>
4.4.3	<p>FLIGHT CONTROLLER, INSTRUCTOR, AND ANALYST TRAINING EXECUTION</p> <p><i>"d. Monitoring and providing feedback of training system performance."</i></p>	None	<p>The contractor provides feedback to NASA on training system performance during flight controller and analyst training. These training systems are operated and maintained under other Government contracts. NASA determines the training systems requirements and feedback collection processes.</p>
4.5.3	<p>FLIGHT CREW TRAINING EXECUTION</p> <p><i>"d. Monitoring, evaluating, and providing feedback of student performance."</i></p>	None	<p>The contractor provides feedback to NASA on student performance during flight crew training. NASA is the certifying authority for all positions. NASA determines the training and certification requirements, and the evaluation processes for certification.</p>
4.5.3	<p>FLIGHT CREW TRAINING EXECUTION</p> <p><i>"e. Monitoring and providing feedback of training system performance."</i></p>	None	<p>The contractor provides feedback to NASA on training system performance during flight crew training. These training systems are operated and maintained under other Government contracts. NASA determines the training systems requirements and feedback collection processes.</p>
6.2	<p><i>"The Contractor shall provide reports, assessments, and technical evaluations of Program development requirements and requirement changes that have potential impact to crew procedures, safety, or operations."</i></p>	None	<p>The contractor provides technical information, reports and assessments based on analysis and relevant perspectives gained through operational experience.</p> <p>NASA determines all requirements.</p> <p>The government will address the potential for unequal access to information by providing, to the largest extent practical, a bidder's library of this information for any follow-on procurement activity for this work.</p>

SOW No.	SOW Title and Requirement	OCI Type	Evaluation and Actions (if necessary)
6.5	<p>OPERATIONS DEVELOPMENT FOR SPACE FLIGHT/MISSION</p> <p><i>“The Contractor shall provide support to FCOD for the accomplishment of the operations development of space flight/mission in-line tasks.”</i></p>	None	<p>The contractor provides technical information, analysis, and relevant perspectives gained through operational experience. NASA determines the processes for the operations development of space flight/mission in-line tasks.</p>
6.8	<p>DISPLAY DEVELOPMENT</p> <p><i>“The Contractor shall provide support to FCOD in coordinating and consolidating all flight crew requirements and delivering the results to the Common Display Development Team (CDDT), or equivalent. The Contractor shall ensure the resultant requirements are in accordance with CDDT specifications.”</i></p>	None	<p>The contractor provides technical information, analysis, and relevant perspectives gained through operational experience. The contractor coordinates and consolidates crew input for display development, and transmits to the CDDT. NASA determines the processes and requirements of the CDDT.</p>

2.2. Identification and Evaluation of Future OCI Concerns

NASA will provide OCI training to Government management and technical personnel associated with the execution of IMOC. The training will provide these employees with an enhanced awareness of potential OCI issues and the ability to better identify OCI concerns in any new plan/train/fly operations work to be completed in furtherance of IMOC. The IMOC contractor, in accordance with its mandatory OCI plan (DRD 1.1-e, IMOC OCI Avoidance Plan), shall also bear responsibility for providing appropriate training to its personnel regarding potential OCI on IMOC.

As part of the approval process for any new operations requirements, NASA managers will have the responsibility of analyzing the requirements and processes brought forward for any possible OCI concerns. Also, all future IMOC Task Orders for LOE or IDIQ tasks will be analyzed by the Government and the IMOC contractor for potential OCI issues and mitigation plans developed accordingly.