

2. AMENDMENT/MODIFICATION NO. 3. EFFECTIVE DATE 4. REQUISITION/PURCHASE REQ. NO. 5. PROJECT NO. (If applicable)
 000083 01 JAN 2009 4200278597

6. ISSUED BY CODE MSFC 7. ADMINISTERED BY (If other than Item 6) CODE MSFC
 NASA/Marshall Space Flight Center Procurement Office
 Marshall Space Flight Center AL 35812

8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) 9A. AMENDMENT OF SOLICITATION NO.
 COLSA CORPORATION (x)

Attn: NONE SPECIFIED 9B. DATED (SEE ITEM 11)
 6726 ODYSSEY DR NW
 HUNTSVILLE AL 35806-3302

10A. MODIFICATION OF CONTRACT/ORDER NO. X NNM04AA07C
 10B. DATED (SEE ITEM 13) 12/04/2003
 CODE FACILITY CODE

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended. is not extended.
 Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required) Net Increase: \$2,400,000.00
 See Schedule

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE
 A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
 B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation data, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
 X C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
 FAR 6.302-1 JOFOC approved 5/28/08 and FAR 52.232-22 Limitation of Funds
 D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor is not. is required to sign this document and return 3 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

LIST OF CHANGES:
 Period Of Performance End Date changed from 31-DEC-08 to 31-DEC-10
 Total Amount for this Modification: \$47,277,013.00
 New Total Amount for this Version: \$47,277,013.00
 New Total Amount for this Award: \$165,809,054.00
 Obligated Amount for this Modification: \$2,400,000.00
 New Total Obligated Amount for this Award: \$114,356,253.00
 Incremental Funded Amount changed: from \$111,956,253.00 to \$114,356,253.00
 Contracting Officer changed from Lizette M Kummer
 Continued ...

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print) 16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)
 JAMES W. GRAVES, CONTRACTS MANAGER David A Iosco
 15B. CONTRACTOR/OFFEROR 15C. DATE SIGNED 16B. UNITED STATES OF AMERICA 16C. DATE SIGNED
 ORIGINAL SIGNED BY 2008 DEC 30 ORIGINAL SIGNED BY DEC 30 2008
 (Signature of person authorized to sign) (Signature of Contracting Officer)

CONTINUATION SHEET

REFERENCE NO. OF DOCUMENT BEING CONTINUED
NNM04AA07C/000083

PAGE OF
2 15

NAME OF OFFEROR OR CONTRACTOR
COLSA CORPORATION

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
005	to David A Iosco Accounting Info: 62E050/6100.2550/62/FC000000/769347.05.08.08.01.0/ 1/000/2550/62/EXCX22009D/733B/1/2 Cost Center: 62E050 GI Account: 6100.2550 Order: FC000000 WBS Element1: 769347.05.08.08.01.0 WBS Element2: 1 Item Number: 000 Commitment Item: 2550 Funds Center: 62 Fund: EXCX22009D Functional Area: 733B Extension for COLSA NNM04AA07C Incrementally Funded Amount: \$2,400,000.00				47,277,013.00

1. Continued from Block 14. Description of Amendment/Modification

	Negotiated Est. Cost	Maximum Award Fee	Unearned Award Fee	Maximum Incentive Fee	Unearned Incentive Fee	Contract Value	Total Sum Allotted
Previous	\$ 111,965,787	\$ 4,432,668	(\$113,345)	\$ 2,386,824	(\$ 139,893)	\$ 118,532,041	\$ 111,956,253
This Mod	<u>44,476,212</u>	<u>1,820,521</u>	<u>-0-</u>	<u>980,280</u>	<u>-0-</u>	<u>47,277,013</u>	<u>2,400,000</u>
New Total	\$ 156,441,999	\$ 6,253,189	(\$113,345)	\$ 3,367,104	(\$139,893)	\$ 165,809,054	\$ 114,356,253

2. This modification is issued to incorporate the two year extension in the period of performance for the Huntsville Operations Support Center (HOSC) and to implement the negotiated equitable adjustment and funding therefore.

3. In order to effect the foregoing, the following changes are made to the existing contract:

a. Clause B.1 Supplies Or Services To Be Furnished paragraph (c) the IDIQ portion -is deleted. No IDIQ requirements are anticipated for the extension.

b. Clause B.2– Estimated Cost, Award Fee And Performance Incentive Fee –

Paragraph (a) is changed to reflect the preceding adjustments to estimated cost, maximum award fee, maximum incentive fee, and contract value.

Paragraph (b) the tabular representation of the adjustments to estimated cost and fee as outlined in the preceding paragraph is updated through 2010.

Paragraph (c) the tabular representation of estimated cost and fee for Option Periods 1 and 2 is deleted and replaced with the monetary breakout for maximum award and incentive fee divided into six month periods.

Paragraph (c) the monetary breakout for maximum award and incentive fee divided into six month periods is updated to include the fee breakouts for 2009 and 2010.

c. Clause B.6, Contract Funding is updated to add \$2,400,000 of incremental funding pursuant to the Limitation of Funds clause FAR 52.232-22. The estimated end date for funding coverage is extended from December 31, 2008 to February 15, 2009. Accordingly, Clause B.6 Contract Funding is revised to increase Estimated Cost by \$2,257,818 (from \$105,389,999 to \$107,647,817). Award Fee is hereby increased by \$92,418 (from \$4,319,323 to \$4,411,741), and Performance Incentive Fee is hereby increased by \$49,764 (from \$2,246,931 to \$2,296,695).

d. Clause B.7 Task Ordering Procedures is deleted and replaced with Allowable Items of Cost.

- e. Clause B.7.1 IDIQ Task Order Performance Schedule is deleted.
- f. Clause B.7.2 Special Threshold For Task Directives is deleted.
- g. Clause B.8 IDIQ Schedule of Rates is deleted.
- h. Clause B.9 Allowable Items Of Cost is updated to include the G&A base for Year 6 (2009) and Year 7 (2010) and the associated G&A ceiling rates.
- i. Clause B.12 Ordering is deleted.
- j. Clause B.13 Order Limitations is deleted.
- k. Clause B.14 Indefinite Quantity is deleted.
- l. Clause D.1 Packaging, Handling, and Transportation is updated from JUN 2000 to SEP 2005.
- m. Clause F.1 Listing Of Clauses Incorporated By Reference FAR 52.211-15 Defense Priority and Allocation System is updated from SEP 1990 to APR 2008.
- n. Clause F.2 Period Of Performance – The base period of contract effort is updated from January 1, 2004 through December 31, 2008 to January 1, 2004 through December 21, 2010.
- o. Clause F.3 Option to Extend the Term of the Contract is deleted. There are no Options for the extension period.
- p. Clause G.1 Listing Of Clauses Incorporated By Reference – FAR 52.227-11 Patent Rights-Ownership by the Contractor (as modified by NASA FAR SUPPLEMENT 1852.227-11) is updated from JUN 1997 to DEC 2007 and deleted from Section G.1 and added to Section I.1. NASA FAR SUPPLEMENT 1852.242-73 NASA Contractor Financial Management Reporting is updated from JUL 2000 to NOV 2004.
- q. Clause G.5 Installation-Accountable Government Property NFS 1845. 245-71 (NOV 2004) is updated to Installation-Accountable Government Property (DEVIATION) (SEP 2007).
- r. Clause G.6. List of Installation-Accountable Property and Services is updated to List Of Government Property Furnished Pursuant To Far 52.245-1 (DEVIATION) (SEP 2007).
- s. Clause G.7 Contractor Employee Badging and Employment Termination Clearance is updated from Nov 1999 to Jul 2006.
- t. Clause G.8 Statement Of Equivalent Rates For Federal Hires is hereby changed to delete the following classifications, grades and rates:

<u>Classification</u>	<u>Grade</u>	<u>Rate</u>
Computer Operator III	GS-06	15.02
Computer Operator V	GS-08	18.49
Computer Programmer I	GS-05	13.48
Computer Programmer III	GS-09	20.42
Computer Programmer IV	GS-11	24.71
Computer Systems Analyst II	GS-11	24.71
Computer Systems Analyst III	GS-12	29.61
Electronics Technician, Maintenance III	WG-10	17.21
Engineering Technician II	GS-04	12.05
Engineering Technician VI	GS-11	24.71
Secretary I	GS-04	12.05
Secretary III	GS-06	15.02
Secretary IV	GS-07	16.69
Technical Writer	GS-11	24.71

And to add the following classifications and associated grades and rates:

Engineering Technician IV	GS-07	17.81
Engineering Technician V	GS-11	21.78
Material Coordinator	WG-07	14.99
Secretary II	GS-06	14.38
Accounting Clerk III	GS-06	14.38

- u. Clause H.1 Listing Of Clauses Incorporated By Reference- FAR 52.204-7 Central Contractor Registration (JUL 2006) is added under Clause I.1 to replace NASA FAR SUPPLEMENT 1852.204-74 Central Contractor Registration (MAY 2002). NASA FAR SUPPLEMENT 1852.208-81 Restriction on Printing and Duplicating is updated from OCT 2001 to NOV 2004.
- v. Clause I.1 Listing of Clauses Incorporated By Reference is changed as follows:

52.202-1	DEC 2001-JUL 2004	DEFINITIONS
52.203-6	JUL 1995-SEP 2006	RESTRICTIONS ON SUBCONTRACTOR SALES TO THE GOVERNMENT
52.203-12	JUN 2003-SEP 2007	LIMITATION ON PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS
52.203-13 ADD	DEC 2007	CONTRACTOR CODE OF BUSINESS ETHICS AND CONDUCT
52.204-7 ADD	JUL 2006	CENTRAL CONTRACTOR REGISTRATION
52.209-6	JUL 1995-SEP 2006	PROTECTING THE GOVERNMENT'S INTEREST WHEN SUBCONTRACTING WITH CONTRACTORS DEBARRED, SUSPENDED, OR PROPOSED FOR DEBARMENT
52.215-15	DEC 1998-OCT 2004	PENSION ADJUSTMENTS AND ASSET REVERSIONS
52.215-18	OCT 1997 JUL 2005	REVERSION OR ADJUSTMENT OF PLANS FOR POSTRETIREMENT BENEFITS (PRB) OTHER THAN PENSIONS
52.219-8	OCT 2000 MAY 2004	UTILIZATION OF SMALL BUSINESS CONCERNS
52.222-19	SEP 2002 FEB	CHILD LABOR-COOPERATION WITH AUTHORITIES AND

	2008	REMEDIES
52.222-37	DEC 2001 SEP 2006	EMPLOYMENT REPORTS ON SPECIAL DISABLED VETERANS, VETERANS OF THE VIETNAM ERA, AND OTHER ELIGIBLE VETERANS
52.222-41	MAY 1989 NOV 2007	SERVICE CONTRACT ACT OF 1965
52.225-13	JUN 2003 JUN 2008	RESTRICTIONS ON CERTAIN FOREIGN PURCHASES
52.227-1	JUL 1995 DEC 2007	AUTHORIZATION AND CONSENT
52.227-2	AUG 1996 DEC 2007	NOTICE AND ASSISTANCE REGARDING PATENT AND COPYRIGHT INFRINGEMENT
52.227-11 ADD FROM SEC. G	DEC 2007	PATENT RIGHTS-OWNERSHIP BY THE CONTRACTOR (SHORT FORM)
52.227-14	JUN 1987 DEC 2007	RIGHTS IN DATA--GENERAL As modified by 1852.227-14 NASA FAR Supplement (OCT 1995)
52.232-17	JUN 1996 OCT 2008	INTEREST
52.232-25	FEB 2002 OCT 2008	PROMPT PAYMENT (ALTERNATE I) (FEB 2002)
52.232-34	MAY 1999	PAYMENT BY ELECTRONIC FUNDS TRANSFER - OTHER THAN CENTRAL CONTRACTOR REGISTRATION
52.232-33 ADD	OCT 2003	PAYMENT BY ELECTRONIC FUNDS TRANSFER - CENTRAL CONTRACTOR REGISTRATION
52.242-10	APR 1984	F.O.B. ORIGIN - GOVERNMENT BILLS OF LADING OR PREPAID POSTAGE
52.244-2	AUG 1998 JUN 2007	SUBCONTRACTS (ALTERNATE I) (AUG 1998)
52.245-5 52.245-1	JUN 2003 - JUN 2007	GOVERNMENT PROPERTY (COST REIMBURSEMENT, TIME AND MATERIAL, OR LABOR HOUR CONTRACTS) GOVERNMENT PROPERTY
52.246-25	FEB 1997	LIMITATION OF LIABILITY-SERVICES
52.247-1	APR 1984 FEB 2006	COMMERCIAL BILL OF LADING NOTATIONS
52.249-6	SEP 1996 MAY 2004	TERMINATION (COST-REIMBURSEMENT)
52.204-9	Nov 2006 SEP 2007	PERSONAL IDENTITY VERIFICATION(PIV) OF CONTRACTOR PERSONNEL

w. Clauses

e I.3 Equal Opportunity is updated from APR 2002 to MAR 2007.

- x. Clause I.4 Equal Opportunity for Special Disabled Veterans, Veterans of the Vietnam Era and Other Eligible Veterans is updated from DEC 2001 to SEP 2006.
- y. Clause I.6 Clauses Incorporated by Reference is updated to add the electronic address for MSFC clauses.
- z. Clause I.7 Ombudsman is updated to replace Axel Roth as installation Ombudsman with Robin Henderson.

4. PART III LIST OF DOCUMENTS, EXHIBITS, AND OTHER ATTACHMENTS is changed as follows:

Attachment J-5 "Government Furnished Property" is deleted and replaced with "Installation Accountable Property".

Attachment J-8 Reference in paragraph o. to the location for the listing of Installation Accountable Property is updated to Attachment J-5.

Attachment J-9 "PWS for IDIQ Task Order" is deleted and replaced with SCA Wage Determination.

Attachment J-10 SCA Wage Determination is deleted and replaced with Marshall Values which updated to NASA Values

Attachment J-11 Marshall Values deleted in its entirety

Attachment J-12 MOVE HQ Support Statement of Work is deleted in its entirety

Pagination is being updated for the following Attachments

- J-1 Performance Work Statement
- J-2 Data Procurement Document
- J-5 Installation Accountable Property
- J-6 Work Breakdown Structure
- J-8 Installation-Provided Property & Services
- J-9 SCA Wage Determination

5. Attachment J-1 Performance Work Statement is changed as follows:

1.0 General

- Updated place of performance to include Building 420 Michoud Assembly Facility (MAF) and to delete the HOSC Annex Building 4207
- Updated programs currently supported to delete MSFC Microgravity Telescience Support Center (TSC) and added Constellation program
- Updated narrative of contractor's mission to delete system development services and replaced with life cycle development services
- Updated references to Ground Systems Department to Mission Operations Laboratory
- Updated list of HOSC customers to include Educational Institutions and International Partner Space Agency
- Updated the product-oriented development activities listed to delete test and delivery and add verification, validation and implementation

2.0 Management

- Updated regulatory references from NASA Procedures and Guidelines (NPG) to NASA Procedural Requirements (NPR) and from Marshall Procedures and Guidelines (MPG) to Marshall Procedural Requirements (MPR)
- Updated "Flight Projects Directorate" to Mission Operations Laboratory
- Updated Marshall Values to NASA Values

- Updated content of SHE Policy
 - Updated content of Quality Policy
- 2.1 Contract Management
- Updated HOSC Plan 623 HOSC Project Plan to EO-PLAN-001 Mission Operations Laboratory (MOL) Management Plan
 - Updated Mission Operations Laboratory Management Plan HOSC Plan 209 Integrated Support Team Console Training and Certification Plan to HOSC Plan 209 Console Training and Certification Plan
- 2.3 Procurement
- Updated FPD-OI-FD40.11 Ground Systems Department Purchasing Planning to EO-OWI-002 Purchase Planning
- 2.5 Information Technology Security and Export Control
- Deleted requirement for NASA System Administrator Security Certification Requirements per NASA HQ OCIO Memo
- 2.6 Risk Management
- Updated HOSC Plan 635 HOSC Project Risk to EO-PLAN-001 MOL Management Plan
- 2.7 Safety Program
- Updated MPG 8715.1 to MRP 8715.1
- 2.9 Configuration Management
- Updated MSFC-PLAN 2929 MOL Configuration Management Plan to EO-PLAN-002 MOL Configuration Management Plan
- 2.9.1 Hardware Systems
- Added text to better define the development of system hardware and the configuration of that hardware.
- 2.9.2 Software Systems
- Added text to better define software configuration control to include tracking and control of changes in software including version control and establishment of baselines through configuration identification, build management process and management defect tracking.
- 2.9.4 Facilities
- Updated FPD-OI-FD43.2 HOSC Configuration Request with EO60-OWI-002
 - Updated HOSC-PLAN-2929 with EO-PLAN-002
- 2.11 Electronic and Information Technology Accessibility
- Updated to add Technical Standard 1194.21 through 1194.26

- 1194.21 Software applications and operating systems.
- 1194.22 Web-based intranet and internet information and applications.
- 1194.23 Telecommunications products.
- 1194.24 Video and multimedia products.
- 1194.25 Self contained, closed products
- 1194.26 Desktop and portable computers.

2.12 Training and Certification

- Updated HOSC-PLAN-209 Integrated Support Team(IST) Training Plan with HOSC PLAN 209 Console Training and Certification Plan

2.14 Indefinite Delivery/Indefinite Quantity

- Deleted IDIQ requirement

3.0 Engineering

- Further defined the requirement for engineering activities to be performed for HOSC systems requirements and implementations of new NASA programs.

3.1.1 Systems Engineering

- (b) Further defined the requirement for systems engineering by adding identification and quantification of system goals and degree of follow up documentation desired for system design.
- (c) MSFC PLAN 2929 updated to EO-PLAN-002 and FPD-01-FD40 updated to EO-OWI-006

3.1.2 Software Engineering

- (b) Further defined "cost estimating" to include resources, effort and schedule
- (e) Further defined "administrative support to software integration and test activities" to include preparing software system line of code counts for each software system build prior to implementation.
- (j) Software must be marketable, extensible, useable, intuitive, robust, fault tolerant, secure, maintainable, modular, and reusable

3.2.2 Remote Services

- Updated "video services" to "services the Contractor will provide" as remote services
- Updated customers to include Payload Developers, and International Partner Control Centers
- Updated FPD-OI-FD40.7 Remote Servicing Plan with EO-OWI-007 Remote Servicing Plan

3.2.2.1 Telescience Resource Kit (TReK)

- Update to include MSFC-RQMT-2629, HOSC TReK Requirements Document in the definition of performance of IV&V in support of Telescience Resource Kit (TReK)

3.2.2.3 KSC Support

- Deleted the requirement

3.2.3.1 PDSS Server Consolidation

- Updated “PDSS server consolidation cost savings initiative activities in progress when the contract took effect” to “PDSS Obsolescence Driven Avionics(ODAR) Project Upgrades”

3.2.4.1 PPS Re-Engineering Initiatives

- Replaced “PPS Re-Engineering Initiatives” with “PPS ODAR Project Upgrades”
- Updated “PPS Re-Engineering Initiatives which will be in progress when the contract takes effect” to “ODAR project “

3.2.5 Enhanced HOSC System

- Deleted the requirement for 3.2.5.1 EHS Cost Savings Initiative
- Updated the requirement for Enhanced HOSC System 3.2.5 by replacing it with the requirement for 3.2.5.2 EHS Sustaining Engineering

3.2.6 ISS Downlink Enhancement Architecture (IDEA)

- Updated the requirements for the IDEA project from “completing the requirements in place when the contract took effect” to “3.2.6.1 IDEA ODAR Project Upgrades and 3.2.6.2 IDEA Sustaining Engineering.

3.2.7 Microgravity Development Laboratory (MDL) and MSFC Telescience Support Center (TSC) Support

- Updated “MDL” and “TSC” to Environmental Control Life Support System (ECLSS), JSC Missions Evaluation Room(MER) and Microgravity Science Glovebox/Material Science Research Rack (MSG/MSRR).

3.2.8 JSC Backup Support Center

- Updated the requirement for engineering to the JSC Backup control center requirement WBS 4.7.5
- Added 3.2.8.1 ISS Backup Control Center
- Added 3.2.8.2 JSC Telescience Support Center
- Added 3.2.8.3 ISS Mission Evaluation Room (MER)

3.3.2 Data Reduction Center (DRC)

- Updated requirement for Sustaining engineering of the DRC with MSFC-SPEC-3423, Data Reduction System Specification.

3.4 Chandra X-Ray Observatory Project

- Updated the requirement for sustaining engineering from “Chandra Engineering Support Center” to “Timing and Distribution System (TDS) in the Chandra Operations Control Center (OCC) Cambridge MA.”
- Deleted the requirement for contractor to perform work necessary to complete the port of the CXO ONLS Software system from Silicon Graphics IRIX to Intel Based Hardware with LINUX..

3.6 Constellation Program

- Updated to further define Constellation program requirements for Engineering by adding
- 3.6.1 Ares Ground Systems – Introduced via IDIQ Task 16

- 3.6.2 Upper Stage Test Control Room – Introduced via Mod 72
 - 3.6.3 Ares Engineering Support – Introduced via IDIQ Task 16
 - 3.6.4 Ares 1-X Data Reduction- Introduced via IDIQ Task16
 - 3.6.5 Computing System Interoperability (CSI)-IDIQ Task 153.6.6 Mission Systems Archive and Retrieval-Introduced via IDIQ Task 16
- 3.7 CCSDS
- Updated the requirement for engineering services for CCSDS introduced via IDIQ Task 18
- 4.0 Operations and Maintenance
- Updates FPD-OI-FD43 to EO60-OWI-001
- 4.4.1 Voice Systems
- Updated the list of voice systems the contractor is required to maintain with “IVoDS gateways”.
- 4.4.2 Video Systems
- Updated the list of video systems the contractor is required to operate and maintain with “video streaming system”
- 4.4.3 Computer Systems
- Updated the list of support services the Contractor is required to provide for local/remote operations to delete “workstations”
- 4.4.4 Data Storage
- Updated the list of data storage services to include “recalling and protecting engineering data and payload science data”
- 4.4.5 System Administration and Management
- Updated NPG 2210.1 External Release of NASA Software with NPR 2210.1 External Release of NASA Software
 - Deleted the requirement for reporting status of system maintenance activities to assure closure of open issues in accordance with DRD 1016-MA-006
- 4.5 Ground Systems Requirements Integration
- Deleted HOSC Plan 623 and replaced with EO-PLAN-001, MOL Management Plan.
- 4.6 Facilities
- Deleted DRD 1016CD-002 On-site Employee Location List and replaced with DRD 1016MA-003, Monthly Progress Report.
- 4.7.1 Specific Mission Support
- Deleted the requirement for complete support for each ISS mission, experiment and ISS increment in accordance with a flight/mission specific HOSC Mission Configuration Supplement (HMCS).

- Added the requirement for the complete support for each ISS mission, experiment and ISS increment in accordance with the Increment Definition Requirements Document (DRD), Annex 5. The POIC Work Package Management Plan is defined in EO-WPMP-002 and the POIF Work Package Management Plan is defined in EO-WPMP-001.
- 4.7.3 Certification of Flight Readiness (CoFR)
- Updated reference to paragraph 4.3 of FPD-0I-FD40.4 Flight Certification for Ground Systems with EO60-OWI-003
- 4.7.4 KSC Payload Test and Checkout System (PTCS) Operations & Maintenance Support
- Deleted the requirement
- 4.7.5 Re-named “Systems Integration Node for Secure Data Storage/ISS Backup Control Center” to “ISS Backup Control Center”
- Deleted: “Initial requirements associated with development, fabrication, installation, acceptance testing and initial operations support for the ISS Backup Control Center.”
 - Added the requirement to provide operations support needed to establish mission essential capabilities prior to the threat of possible hurricane impact to operations of the MCC-H.
 - Added “For ISS, MCC-H will transition mission control responsibility to the BCC at least 36 hours prior to the forecast onset of 50-knot (58 mph) winds at JSC (Level 2 threat). For Category 1 and 2 hurricanes, the MCC equipment will remain powered up and useable, but not monitored (system functionality is not guaranteed). A facility ride-out team will be available for fire watch only. An emergency power down and total evacuation will be executed for Category 3, 4, or 5 storms.”
- 4.8.1 Specific Mission Support
- Deleted the requirement for telemetry controller/operations coordinator in accordance with MSFC-PROC-1613, Joint Operations Procedures for the Kennedy Marshall Transmission System
- 4.8.2 Certification of Flight Readiness (CoFR)
- Deleted paragraph 4.3 of FPD-0I-FD40.4 and replace with EO60-OWI-003
- 4.9 Chandra X-Ray Observatory
- Deleted the requirement
- 4.9.1 Specific Mission Support
- Deleted the requirement
- 4.9 Constellation Program
- Updated the requirement for Operations and Maintenance Services for the Constellation Program with the following:
 - 4.9.1 Ares Engineering Support Function
 - 4.9.2 Ares 1-X Data Reduction
 - 4.9.3 CLV Logistics Database

6. Attachment J-2 DPD is updated to replace the Statement of General Requirements (SGR) with current pages J-2-5 through J-2-10. It also replaces 1016LS-001 Government Property Management Plan, 1016-MA-010 Badged Employee and Remote IT User Listing, 1016SA-001 Safety, Health and Environmental (SHE) Plan, and 1016SA-002 Mishaps and Safety Statistics Report with the current standards.

7. Attachment J-3 Applicable Regulations and Procedures are changed as follows:

Updated the URL from <https://hoscc.msfc.nasa.gov> with <https://upn.ums.msfc.nasa.gov/sites/ice/docrepository>.

Delete the following statements:

Some documents are only available in a reading room at MSFC. Access to the reading room can be obtained by contacting the Contracting Officer, Wayne Harmon/PS41D.

Documents listed below will be made available only in a reading room at MSFC.

Deleted "Flight Projects Directorate" Organizational Issuances (OIs) and replace with "Mission Operations Laboratory" Organizational Issuances (OIs).

Deleted

FPD-OI-FD40.10	HOSC Problem report
FPD-OI-FD40.11	Ground Systems Department Purchase Planning
FPD-OI-FD43.1	Ground System Operations
FPD-OI-FD43.2	HOSC Configuration Request

Added

MISSION OPERATIONS LABORATORY ORGANIZATIONAL ISSUANCES (OIs)

EO60-OWI-001	Ground System Operations
EO60-OWI-002	HOSC Configuration Request
EO60-OWI-003	Flight Certification for Ground Systems
EO-OWI-002	Purchase Planning
EO-OWI-003	HOSC Task Directives
EO-OWI-004	HOSC Contract Performance Evaluation
EO-OWI-006	HOSC Problem report
EO-OWI-007	Remote Servicing Plan
EO-PLAN-001	Mission Operations Laboratory Management Plan
EO-PLAN-002	Mission Operations Laboratory Configuration Management Plan
EO-WPMP-001	Payload Operations Integration Function (POIF) Work Package Management Plan
EO-WPMP-002	Payload Operations Integration Center (POIC) Work Package Management Plan

Replaced FPD-OI-FD40 with EO60-OWI-003 Flight Certification for Ground Systems
Replaced FPD-OI-FD40 with EO-OWI-007 Remote Servicing Plan

8. Attachment J-5 "Government Furnished Property" is changed to Attachment J-5 "Installation Accountable Property" and the list of installation accountable property in the current contract is updated.
9. Attachment J-6 Work Breakdown Structure is updated to reflect the changes herein described to the Performance Work Statement.
10. Attachment J-8 Installation Provided Property is updated to remove the list of Installation Accountable Property and replace it in Attachment J-5.
11. Attachment J-9 Performance Work Statement for IDIQ Task Order is deleted.
12. Attachment J-1- SCA Wage Determination is updated with the latest Revision No. 9 dated 5/29/08.
13. In order to implement the contract changes resulting from this modification, the page (s) listed below are added or deleted from the contract as shown. In order to indicate the specific area(s) of change, vertical lines are shown in the right margin of the enclosed replacement page(s) across from the revised area(s).

<u>Section</u>	<u>Pages Added</u>	<u>Pages Deleted</u>
B, Supplies or Services and Prices/Costs	B-1 through B-11	B-1 through B-14
C, Description/Specification	C-1	C-1
D, Packaging and Marking	D-1	D-1
E, Inspection and Acceptance	E-1 through E-2	E-1 through E-2
F, Deliveries or Performance	F-1 through F-3	F-1 through F-4
G, Contract Administration Data	G-1 through G-8	G-1 through G-9
H, Special Contract Requirements	H-1 through H-14	H-1 through H-14
I, Contract Clauses	I-1 through I-16	I-1 through I-16
Section J, List of Attachments	J-1	J-1
Attachment J-1 PWS	J-1-1 through J-1-32	J-1-1 through J-1-36
Attachment J-2 DPD	J-2-1 through J-2-45	J-2-1 through J-2-43
Attachment J-3 Applicable Regulations And Procedures	J-3-1 through J-3-3	J-3-1 through J-3-3
Attachment J-5 Installation Accountable Property	J-5-1 through J-5-83	J-5-1 through J-5-1
Attachment J-6 Work Breakdown Structure	J-6-1 through J-6-3	J-6-1 through J-6-2
Attachment J-8 Installation Provided Property and Services	J-8-1 through J-8-2	J-8-1 through J-8-74

Attachment J-9 Performance Work Statement for IDIQ Orders	N/A	J-9-1 through J-9-2
Attachment J-9 SCA Wage	J-9-1 through J-9-57	J-10-1 through J-10-47
Attachment J-11 NASA Values	J-10-1	J-11-1
Attachment J-12 MOVE HQ Support	N/A	J-12-1 through J-12-3

14. Contractor's Statement of Release

In consideration of the modification agreed to herein as complete equitable adjustment for all claims arising out of or attributable to the issuance of the contract changes and/or contractor proposal listed below, the contractor hereby releases the Government from any and all liability under this contract for further equitable adjustment attributable to such facts or circumstances giving rise to said contract changes and/or contractor proposals, and for such additional obligations as may be required by this modification.

Contract
Change Identification

Contractor
Proposal Number

Modification No. 83

COLSA Proposal No.08-08-173 1/ dtd 10/01/08

PART I - THE SCHEDULE

SECTION B - SUPPLIES OR SERVICES AND PRICE/COSTS

B.1 Supplies And/Or Services To Be Furnished

- (a) In a manner consistent with the Marshall Space Flight Center (MSFC) values, the Contractor shall provide all resources (except as may be expressly stated in this contract as furnished by the Government) necessary for performing the "Huntsville Operations Support Center (HOSC)" in accordance with the Performance Work Statement, Attachment J-1.
- (b) This is a cost-reimbursement contract with both award fee and performance incentive fee criteria (CPAF/IF). The award fee (subjective evaluation) and performance incentive fee (objective evaluation) will be assessed in accordance with the Fee Evaluation Plan (FEP), Attachment J-7.
- (c) IDIQ Portion deleted by Modification 83 12/31/08

(End of Clause)

B.2 Estimated Cost, Award Fee And Performance Incentive Fee

- (a) The estimated cost of this contract is \$156,441,999. The maximum award fee is \$6,253,189. The unearned award fee is (\$113,345). The maximum performance incentive fee is \$3,367,104. The unearned performance fee is (\$139,893). The estimated cost plus maximum award fee and maximum performance incentive fee minus the unearned award fee and unearned performance incentive fee is \$165,809,054.
- (b) A breakout of estimated cost, maximum award fee, unearned award fee, maximum performance incentive fee, unearned performance incentive fee, and the total minus unearned fee for the base contract period is shown below:

<u>Period Covered</u>	<u>Estimated Cost</u>	<u>Maximum Award Fee</u>	<u>Unearned Award Fee</u>	<u>Maximum Perf. Incentive Fee</u>	<u>Unearned Performance Incentive Fee</u>	<u>Total Minus Unearned Fees</u>
1/1/04 - 12/31/10	\$156,441,999	\$6,253,189	(\$113,345)	\$3,367,104	(\$139,893)	\$165,809,054

Breakout of estimated cost, and fee for Options periods was deleted by Modification 83 12/31/08.

(c) The maximum award fee and maximum performance incentive fee for each of the contract periods specified above is hereby divided and allocated into individual six month evaluation periods during contract performance in order to calculate award and performance incentive fee earned.

Evaluation Period		Maximum Award Fee	Maximum Incentive
01/01/04-06/30/04	1	\$485,012	\$208,928
07/01/04-12/01/04	2	\$480,581	\$269,221
01/01/05-06/30/05	3	\$429,446	\$241,686
07/01/05-12/31/05	4	\$419,599	\$236,384
01/01/06-06/30/06	5	\$423,426	\$238,447
07/01/06-12/31/06	6	\$421,326	\$237,316
01/01/07-06/30/07	7	\$425,065	\$228,882
07/01/07-12/31/07	8	\$432,916	\$233,108
1/01/08-06/30/08	9	\$457,610	\$246,405
07/01/08-12/31/08	10	\$457,687	\$246,447
01/01/09-06/30/09	11	\$461,436	\$248,466
07/01/09-12/31/09	12	\$461,436	\$248,466
01/01/10-06/30/10	13	\$448,824	\$241,674
07/01/10-12/31/10	14	<u>\$448,825</u>	<u>\$241,674</u>
		\$6,253,189	\$3,367,104

(d) The amount of award fee which has been earned/unearned pursuant to this clause and the period to which said fee applies is set forth below:

January 1 - June 30, 2004	\$456,881	\$28,131
July 1 - December 31, 2004	\$454,149	\$26,432
January 1 - June 30, 2005	\$420,299	\$9,147
July 1 - December 31, 2005	\$414,480	\$5,119
January 1 - June 30, 2006	\$417,075	\$6,351
July 1 - December 31, 2006	\$411,214	\$10,112
January 1 - June 30, 2007	\$403,812	\$21,253
July 1 - December 31, 2007	\$428,587	\$4,329
January 1 - June 30, 2008	\$455,139	\$2,471
July 1-December 31, 2008	<u>TBD</u>	<u>TBD</u>
Total	\$3,861,636	\$113,345

(e) The amount of performance incentive fee which has been earned/unearned pursuant to this clause and the period to which said fee applies is set forth below:

January 1 - June 30, 2004	\$208,928	\$0
July 1 - December 31, 2004	\$269,221	\$0
January 1 - June 30, 2005	\$199,391	\$42,295
July 1 - December 31, 2005	\$236,384	\$0
January 1 - June 30, 2006	\$211,622	\$26,825
July 1 - December 31, 2006	\$177,987	\$59,329
January 1 - June 30, 2007	\$217,438	\$11,444
July 1 - December 31, 2007	\$233,108	\$0
January 1 - June 30, 2008	\$246,405	\$0
July 1 - December 31, 2008	<u>TBD</u>	<u>TBD</u>
Total	\$2,000,484	\$139,893

(End of Clause)

B.3 Award Fee For Service Contracts (NFS 1852.216-76)(June 2000)

(a) The Contractor can earn award fee from a minimum of zero dollars to the maximum stated in Clause B.2 "Estimated Cost, Award Fee, and Performance Incentive Fee" in this contract. The award fee pool will also consist of 65% of the fee negotiated for the effort of this contract and primarily covers all Performance Work Statement requirements in Attachment J-1, with the exception of Paragraph 4.4, "HOSC Mission Services".

- (b) Beginning six months after the effective date of this contract, the Government shall evaluate the Contractor's performance every six 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 Attachment J-7. The Government may revise the plan unilaterally prior to the beginning of any rating period to redirect emphasis.
- (c) The Government will advise the Contractor in writing of the evaluation results. The MSFC Accounting Operations Office will make payment based on the modification to the contract which incorporates the earned award fee.
- (d) After 85% of the potential award fee has been paid, the Contracting Officer may direct the withholding of further payment of award fee until a reserve is set aside in an amount that the Contracting Officer considers necessary to protect the Government's interest. This reserve shall not exceed 15% of the total potential award fee.
- (e) The amount of award fee which can be awarded in each evaluation period is limited to the amounts set forth in Clause B.2 and as further allocated into the six month evaluation periods. Award fee which is not earned in an evaluation period cannot be reallocated for future evaluation periods.
- (f) (1) Provisional award fee payments will be made under this contract pending the determination of the amount of fee earned for an evaluation period. If applicable, provisional award fee payments will be made to the Contractor on a monthly basis. The total amount of award fee available in an evaluation period that will be provisionally paid is the lesser of 80% of the maximum potential award fee 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)

B.4 Evaluation Of Performance Incentive Fee

- (a) The Contractor can earn performance incentive fee from a minimum of zero dollars to the maximum stated in Clause B.2 "Estimated Cost, Award Fee, and Performance Incentive Fee" in this contract. The potential performance incentive fee will constitute 35% of the fee negotiated for the effort of this contract and primarily covers the Performance Work Statement requirements in Attachment J-1, Paragraph 4.4, "HOSC Mission Services."
- (b) Beginning six months after the effective date of this contract and every six months thereafter, the Government will evaluate the Contractor's performance to determine the amount of performance incentive fee earned by the Contractor during the period. The Government will determine the performance incentive fee amounts based on the Contractor's performance in accordance with Attachment J-7.
- (c) The Government will advise the Contractor in writing of the evaluation results. The MSFC Accounting Operations Office will make payment based on the modification to the contract which incorporates the earned performance incentive fee.
- (d) After 85% of the potential performance incentive fee has been paid, the Contracting Officer may direct the withholding of further payment of performance incentive fee until a reserve is set aside in an amount that the Contracting Officer considers necessary to protect the Government's interest. This reserve shall not exceed 15% of the total potential performance fee.
- (e) The amount of performance incentive fee which can be earned in each evaluation period is limited to the amounts set forth in Clause B.2. Performance incentive fee which is not earned in an evaluation period cannot be reallocated for future evaluation periods.
- (f) (1) Provisional performance incentive fee payments will be made under this contract pending the determination of the amount of fee earned for an evaluation period. If applicable, provisional performance incentive fee payments will be made to the Contractor on a monthly basis. The total amount of performance incentive fee available in an evaluation period that will be provisionally paid is 80% of the maximum potential performance incentive fee.
- (2) Provisional performance incentive fee payments will be superseded by the final performance incentive fee evaluation. 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 performance incentive 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 performance incentive fee payments will be made prior to the first performance incentive fee determination by the Government.

(End of Clause)

B.5 Premiums For Scheduled Overtime (MSFC 52,222-90) (Feb 2001)

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

<u>Period</u>	<u>Amount</u>
Base Period (Yrs 1 - 3)	(b)(4)
Option Period 1	
Option Period 2	

(End of Clause)

B.6 Contract Funding (NFS 1852.232-81) (Jun 1990)

(a) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds clause, the total amount allotted by the Government to this contract is \$107,647,817. This allotment is for Huntsville Operations Space Center (HOSC) Mission Support Services and covers the following estimated period of performance: contract award through February 15, 2009.

(b) An additional amount of \$6,708,436 is obligated under this contract for payment of fees.

(c) Recapitulation of funding is as follows:

	Previous	This Action	Total
Estimated Cost	\$105,389,999	\$2,257,818	\$107,647,817
Award Fee	\$4,319,323	\$92,418	\$4,411,741
Performance Incentive Fee	\$2,246,931	\$49,764	\$2,296,695
Total Sum Allotted	\$111,956,253	\$2,400,000	\$114,356,253

(End of Clause)

Task Ordering Procedure (NFS 1852.216-80) (Oct 1996) Deleted by Modification 83 12/31/08

IDIO Task Order Performance Schedule Deleted by Modification 83 12/31/08

Special Threshold For Task Directives Deleted by Modification 83 12/31/08

IDIQ Schedule Of Rates Deleted by Modification 83 12/31/08

B.7 Allowable Items Of Cost (MSFC 52.242-90) (Feb 2001)

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

Ceilings on General And Administrative Costs

Year	G&A Rate	G&A Base
1	(b)(4)	
2		
3		
4		
5		
6		
7		

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

(c) Deleted by Modification 83 12/31/08 .

(End of Clause)

B.8 Allowable Cost and Payment (FAR 52.216-7) (Dec 2002)

(a) Invoicing.

(1) The Government will make payments to the Contractor when requested as work progresses, but (except for small business concerns) not more often than once every 2 weeks, in amounts determined to be allowable by the Contracting Officer in accordance with Federal Acquisition Regulation (FAR) Subpart 31.2 in effect on the date of this contract and the terms of this contract. The Contractor may submit to an authorized representative of the Contracting Officer, in such form and reasonable detail as the representative may require, an invoice or voucher supported by a statement of the claimed allowable cost for performing this contract.

(2) Contract financing payments are not subject to the interest penalty provisions of the Prompt Payment Act. Interim payments made prior to the final payment under the contract are contract financing payments, except interim payments if this contract contains Alternate I to the clause at 52.232-25.

(3) The designated payment office will make interim payments for contract financing on the 30th day after the designated billing office receives a proper payment request. In the event that the

Government requires an audit or other review of a specific payment request to ensure compliance with the terms and conditions of the contract, the designated payment office is not compelled to make payment by the specified due date.

(b) Reimbursing costs.

(1) For the purpose of reimbursing allowable costs (except as provided in paragraph (b)(2) of this clause, with respect to pension, deferred profit sharing, and employee stock ownership plan contributions), the term "costs" includes only- (i) Those recorded costs that, at the time of the request for reimbursement, the Contractor has paid by cash, check, or other form of actual payment for items or services purchased directly for the contract; (ii) When the Contractor is not delinquent in paying costs of contract performance in the ordinary course of business, costs incurred, but not necessarily paid, for-

(A) Supplies and services purchased directly for the contract and associated financing payments to subcontractors, provided payments determined due will be made- (1) In accordance with the terms and conditions of a subcontract or invoice; and (2) Ordinarily within 30 days of the submission of the Contractor's payment request to the Government;

(B) Materials issued from the Contractor's inventory and placed in the production process for use on the contract;

(C) Direct labor;

(D) Direct travel;

(E) Other direct in-house costs; and

(F) Properly allocable and allowable indirect costs, as shown in the records maintained by the Contractor for purposes of obtaining reimbursement under Government contracts; and

(iii) The amount of financing payments that have been paid by cash, check, or other forms of payment to subcontractors.

(2) Accrued costs of Contractor contributions under employee pension plans shall be excluded until actually paid unless- (i) The Contractor's practice is to make contributions to the retirement fund quarterly or more frequently; and (ii) The contribution does not remain unpaid 30 days after the end of the applicable quarter or shorter payment period (any contribution remaining unpaid shall be excluded from the Contractor's indirect costs for payment purposes).

(3) Notwithstanding the audit and adjustment of invoices or vouchers under paragraph (g) of this clause, allowable indirect costs under this contract shall be obtained by applying indirect cost rates established in accordance with paragraph (d) of this clause.

(4) Any statements in specifications or other documents incorporated in this contract by reference designating performance of services or furnishing of materials at the Contractor's expense or at no cost to the Government shall be disregarded for purposes of cost-reimbursement under this clause.

(c) Small business concerns.

A small business concern may receive more frequent payments than every 2 weeks.

(d) Final indirect cost rates.

(1) Final annual indirect cost rates and the appropriate bases shall be established in accordance with Subpart 42.7 of the Federal Acquisition Regulation (FAR) in effect for the period covered by the indirect cost rate proposal.

(2)(i) The Contractor shall submit an adequate final indirect cost rate proposal to the Contracting Officer (or cognizant Federal agency official) and auditor within the 6-month period following the expiration of each of its fiscal years. Reasonable extensions, for exceptional circumstances only, may be requested in writing by the Contractor and granted in writing by the Contracting Officer. The Contractor shall support its proposal with adequate supporting data. (ii) The proposed rates shall be based on the Contractor's actual cost experience for that period. The appropriate Government representative and the Contractor shall establish the final indirect cost rates as promptly as practical after receipt of the Contractor's proposal.

(3) The Contractor and the appropriate Government representative shall execute a written understanding setting forth the final indirect cost rates. The understanding shall specify (i) the agreed-upon final annual indirect cost rates, (ii) the bases to which the rates apply, (iii) the periods for which the rates apply, (iv) any specific indirect cost items treated as direct costs in the settlement, and (v) the affected contract and/or subcontract, identifying any with advance agreements or special terms and the applicable rates. The understanding shall not change any monetary ceiling, contract obligation, or specific cost allowance or disallowance provided for in this contract. The understanding is incorporated into this contract upon execution.

(4) Failure by the parties to agree on a final annual indirect cost rate shall be a dispute within the meaning of the Disputes clause.

(5) Within 120 days (or longer period if approved in writing by the Contracting Officer) after settlement of the final annual indirect cost rates for all years of a physically complete contract, the Contractor shall submit a completion invoice or voucher to reflect the settled amounts and rates.

(6)(i) If the Contractor fails to submit a completion invoice or voucher within the time specified in paragraph (d)(5) of this clause, the Contracting Officer may- (A) Determine the amounts due to the Contractor under the contract; and (B) Record this determination in a unilateral modification to the contract. (ii) This determination constitutes the final decision of the Contracting Officer in accordance with the Disputes clause.

(e) Billing rates.

Until final annual indirect cost rates are established for any period, the Government shall reimburse the Contractor at billing rates established by the Contracting Officer or by an authorized representative (the cognizant auditor), subject to adjustment when the final rates are established. These billing rates- (1) Shall be the anticipated final rates; and (2) May be prospectively or retroactively revised by mutual agreement, at either party's request, to prevent substantial overpayment or underpayment.

(f) Quick-closeout procedures.

Quick-closeout procedures are applicable when the conditions in FAR 42.708(a) are satisfied.

(g) Audit.

At any time or times before final payment, the Contracting Officer may have the Contractor's invoices or vouchers and statements of cost audited. Any payment may be- (1) Reduced by amounts found by the Contracting Officer not to constitute allowable costs; or (2) Adjusted for prior overpayments or underpayments.

(h) Final payment.

(1) Upon approval of a completion invoice or voucher submitted by the Contractor in accordance with paragraph (d)(5) of this clause, and upon the Contractor's compliance with all terms of

this contract, the Government shall promptly pay any balance of allowable costs and that part of the fee (if any) not previously paid.

(2) The Contractor shall pay to the Government any refunds, rebates, credits, or other amounts (including interest, if any) accruing to or received by the Contractor or any assignee under this contract, to the extent that those amounts are properly allocable to costs for which the Contractor has been reimbursed by the Government. Reasonable expenses incurred by the Contractor for securing refunds, rebates, credits, or other amounts shall be allowable costs if approved by the Contracting Officer. Before final payment under this contract, the Contractor and each assignee whose assignment is in effect at the time of final payment shall execute and deliver- (i) An assignment to the Government, in form and substance satisfactory to the Contracting Officer, of refunds, rebates, credits, or other amounts (including interest, if any) properly allocable to costs for which the Contractor has been reimbursed by the Government under this contract; and (ii) A release discharging the Government, its officers, agents, and employees from all liabilities, obligations, and claims arising out of or under this contract, except-

(A) Specified claims stated in exact amounts, or in estimated amounts when the exact amounts are not known;

(B) Claims (including reasonable incidental expenses) based upon liabilities of the Contractor to third parties arising out of the performance of this contract; provided, that the claims are not known to the Contractor on the date of the execution of the release, and that the Contractor gives notice of the claims in writing to the Contracting Officer within 6 years following the release date or notice of final payment date, whichever is earlier; and

(C) Claims for reimbursement of costs, including reasonable incidental expenses, incurred by the Contractor under the patent clauses of this contract, excluding, however, any expenses arising from the Contractor's indemnification of the Government against patent liability.

(End of Clause)

B.9 Contract Extension Resulting From Protests

(a) If the award of a successor contract to perform the services being performed under this contract is delayed because of a protest, the Contracting Officer may extend the period of performance on this contract to cover any delay caused by such a protest. The Contractor shall be entitled to an equitable adjustment for such an extension, subject to the limitations in paragraph (b).

(b) The final award fee evaluation period may be extended to include the contract extension period provided for in paragraph (a). However, if the Contractor is the protestor or one of the protestors, no additional fee shall be put in the award fee pool or otherwise made available to the Contractor, unless the Contractor or another protestor substantially prevails in the protest.

(End of Clause)

Ordering (FAR 52.216-18) (Oct 1995) Deleted by Modification 83 12/31/08

Order Limitations (FAR 52.216-19) (Oct 1995) Deleted by Modification 83 12/31/08

Indefinite Quantity (FAR 52.216-22) (Oct 1995) Deleted by Modification 83 12/31/08

(END OF SECTION)

SECTION C - DESCRIPTION/SPECIFICATION/WORK STATEMENT

C.1 Description/Specifications/Statement Of Work (MSFC 52.211-93) (FEB 2001)

The Description/Specifications/Statement of Work for the HOSC effort is Attachment J-1, "Performance Work Statement."

(End of Clause)

C.2 General

It is understood and agreed that the work performed under this contract is on a completion-form contract basis and that the applicable Performance Work Statement (PWS) is stated in broad terms in order to achieve maximum required flexibility. Detailed Government direction will be limited to the minimum necessary to assure operational requirements are met. The Contractor shall be responsible for staffing the contract with appropriate skills and numbers of personnel to assure work is performed in a high quality, timely, and cost effective manner. The Contractor's obligation under this contract shall include resolution of unusual or emergency situations or increased work volume, which may occur from time to time throughout the period of performance. Work and increased work volume of this nature, e.g. mission model changes, directed of the Contractor by the Government will be by "Work Directives" from the Contracting Officer or his Representative. Services so directed shall be considered within the general scope of the contract, entirely within the Contractor's original obligation and will not constitute nor be construed as a change within the meaning of the clause of this contract entitled "Changes - Cost Reimbursement - Alternate I." However, if any written direction by the Government through Work Directives is considered by the Contractor to be a change to the original contractual obligation, the Contractor, before performing any effort pursuant to such Government direction, shall refer such questions to the Contracting Officer for resolution in accordance with the procedures set forth in the Technical Direction Clause (Section G) of this contract.

(End of Clause)

[END OF SECTION]

SECTION D - PACKAGING AND MARKING

D.1 Listing Of Clauses Incorporated By Reference

NOTICE: The following contract clauses pertinent to this section are hereby incorporated by reference:

I. FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1)

CLAUSE NUMBER	DATE	TITLE
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None included by reference.

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

CLAUSE NUMBER	DATE	TITLE
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1852.211-70	SEP 2005	PACKAGING, HANDLING, AND TRANSPORTATION
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(End of Clause)

[END OF SECTION]

SECTION E - INSPECTION AND ACCEPTANCE

E.1 Listing Of Clauses Incorporated By Reference

NOTICE: The following contract clauses pertinent to this section are hereby incorporated by reference:

I. FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1)

CLAUSE NUMBER	DATE	TITLE
52.246-1	APR 1984	CONTRACTOR INSPECTION REQUIREMENTS
52.246-3	May 2001	INSPECTION OF SUPPLIES-COST-REIMBURSEMENT
52.246-5	APR 1984	INSPECTION OF SERVICES-COST-REIMBURSEMENT

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

CLAUSE NUMBER	DATE	TITLE
None included by reference.		

(End of Clause)

E.2 Material Inspection And Receiving Report (NFS 1852.246-72) (Aug 2003)

(a) At the time of each delivery to the Government under this contract, the Contractor shall furnish a Material Inspection and Receiving Report (DD Form 250 series) prepared in 3 copies, an original and 2 copies.

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

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

(End of Clause)

E.3 Place Of Final Inspection And Acceptance

The place of final inspection and acceptance for deliverables under this contract shall be at the George C. Marshall Space Flight Center, AL 35812, at the site requiring the deliverables, or as otherwise directed by the Contracting Officer.

(End of Clause)

[END OF SECTION]

SECTION F - DELIVERIES OR PERFORMANCE**F.1 Listing Of Clauses Incorporated By Reference**

NOTICE: The following contract clauses pertinent to this section are hereby incorporated by reference:

I. FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1)

CLAUSE NUMBER	DATE	TITLE
52.211-15	APR 2008	DEFENSE PRIORITY AND ALLOCATION REQUIREMENTS
52.242-15	AUG 1989	STOP-WORK ORDER (ALTERNATE I) (APR 1984)
52.247-34	NOV 1991	F.O.B. DESTINATION
52.247-65	JAN 1991	F.O.B. ORIGIN, PREPAID FREIGHT - SMALL PACKAGE SHIPMENTS

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

CLAUSE NUMBER	DATE	TITLE
None included by reference		

(End of Clause)

F.2 Period Of Performance

The period of performance of the base contract effort shall be January 1, 2004 through December 31, 2010.

(End of Clause)

Option to Extend the Term of the Contract (FAR 52.217-9) (Mar 2000) Deleted by Modification 83 12/31/08

F.3 Place Of Performance (MSFC 52.237-91) (Feb 2001)

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

(End of Clause)

F.4 Bills Of Lading (NFS 1852.247-73) (JUN 2002)

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

(a) Commercial Bills of Lading. All domestic shipments shall be made via commercial bills of lading (CBL). The Contractor shall prepay domestic transportation charges. The Government shall reimburse the Contractor for these charges if they are added to the invoice as a separate line item supported by the paid freight receipts. If paid receipts in support of the invoice are not obtainable, a statement as described below must be completed, signed by an authorized company representative, and attached to the invoice.

"I certify that the shipments identified below have been made, transportation charges have been paid by (company name), and paid freight or comparable receipts are not obtainable.

Contract or Order Number: _____

Destination: _____".

(b) Government Bills of Lading. (1) International (export) and domestic overseas shipments of items deliverable under this contract shall be made by Government bills of lading (GBL). As used in this clause, "domestic overseas" means non-continental United States, i.e. Hawaii, Commonwealth of Puerto Rico, and possessions of the United States.

(2) At least 15 days before shipment, the Contractor shall request in writing GBLs from:

Carolyn Greenwood
Transportation Officer
AD42T

If time is limited, requests may be by telephone: 256-544-2718

Requests for GBLs shall include the following information.

- (i) Item identification/ description.
- (ii) Origin and destination.
- (iii) Individual and total weights.

- (iv) Dimensional Weight.
- (v) Dimensions and total cubic footage.
- (vi) Total number of pieces.
- (vii) Total dollar value.
- (viii) Other pertinent data.

(End of Clause)

F.5 Delivery Schedule

The Contractor shall deliver the items required to be furnished by this contract as follows:

<u>Item No.</u>	<u>Description</u>	<u>Quantity</u>	<u>Delivery Date</u>	<u>Shipping Address</u>
	SEE ATTACHMENT J-1			*SEE BELOW

*SHIP TO: National Aeronautics and Space Administration
 George C. Marshall Space Flight Center
 Attn: AS40/Central Receiving
 Building 4631
 Marshall Space Flight Center, AL 35812
 (And Other Locations As Approved In Writing The Contracting Officer)

(End of Clause)

F.6 Free On Board (FOB) Point

(a) The FOB point for deliverables under this contract shall be the George C. Marshall Space Flight Center, Marshall Space Flight Center, AL 35812, at the sites requiring the deliverables, or for specific items, when so directed by the Contracting Officer or his duly authorized representative, at the Contractor's facilities.

(b) Those items having the FOB point at the Contractor's facilities in accordance with (a) above shall be shipped as directed by the Contracting Officer or his duly authorized representative and in accordance with F.4 or alternately in accordance with clause 52.247-1, "Commercial Bill of Lading Notations."

(End of Clause)

F.7 Section 10721 Rates (MSFC 52.247-90) (FEB 2001)

The Contractor shall use carriers that offer acceptable service at reduced rates (Section 10721 rates), if available.

(End of Clause)
[END OF SECTION]

SECTION G - CONTRACT ADMINISTRATION DATA

G.1 Listing Of Clauses Incorporated By Reference

NOTICE: The following contract clauses pertinent to this section are hereby incorporated by reference:

I. FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1)

CLAUSE
NUMBER DATE TITLE

None included by reference.

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

CLAUSE
NUMBER DATE TITLE

1852.227-11	JUL 1997	PATENT RIGHTS RETENTION BY THE CONTRACTOR (SHORT FORM)
1852.242-71	DEC 1988	TRAVEL OUTSIDE OF THE UNITED STATES
1852.242-73	NOV 2004	NASA CONTRACTOR FINANCIAL MANAGEMENT REPORTING
1852.245-70	JUL 1997	CONTRACTOR REQUESTS FOR GOVERNMENT-OWNED EQUIPMENT

(End of Clause)

G.2 Submission Of Vouchers For Payment (NFS 1852.216-87) (MAR 1998)

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

(b) (1) If the contractor is authorized to submit interim cost vouchers directly to the NASA paying office, they shall be prepared in accordance with paragraph (c) of this clause and submitted to:

NASA Shared Services Center
Financial Management Division (FMD)
Accounts Payable
Bldg. 1111, C. Road
Stennis Space Center MS 39529

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 (DCAA) has authorized the Contractor to submit interim 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 the cognizant DCAA office;
- (2) Five copies of SF 1034A, SF 1035A, or equivalent Contractor's attachment to the following offices by insertion in the memorandum block of their names and addressees:

- (i) Copy 1 - NASA Contracting Officer
- (ii) Copy 2 - DCAA Auditor
- (iii) Copy 3 - Contractor
- (iv) Copy 4 - Contract Administration Office, if delegated
- (v) Copy 5 - Project Manager

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

(d) Public vouchers for payment of fee shall be prepared similarly to the procedure in paragraph (c) of this clause, and be forwarded to:

NASA Shared Services Center
Financial Management Division (FMD)
Accounts Payable
Bldg. 1111, C. Road
Stennis Space Center MS 39529

Phone 1-877-677-2123
Fax 1-866-209-5415
E-Mail NSSC-AccountsPayable@nasa.gov

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

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

(End of Clause)

G.3 Designation of New Technology Representative and Patent Representative
(NFS 1852.227-72) (JUL 1997)

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

New Technology Representative/CD30
NASA Marshall Space Flight Center
Marshall Space Flight Center AL 35812

Patent Representative/LS01
NASA Marshall Space Flight Center
Marshall Space Flight Center AL 35812

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

(End of Clause)

G.4 Technical Direction (NFS 1852.242-70) (SEP 1993)

(a) Performance of the work under this contract is subject to the written technical direction of the Contracting Officer Technical Representative (COTR), who shall be specifically appointed by the Contracting Officer in writing in accordance with NASA FAR Supplement 1842.270. "Technical direction" means a directive to the Contractor that approves approaches, solutions, designs, or refinements; fills in details or otherwise completes the general description of work or documentation items; shifts emphasis among work areas or tasks; or furnishes similar instruction to the Contractor. Technical direction includes requiring studies and pursuit of certain lines of inquiry regarding matters within the general tasks and requirements in Section C of this contract.

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

- (1) Constitutes an assignment of additional work outside the Performance Work Statement;
- (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)

1852.245-71

G.5 Installation-Accountable Government Property (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). Under this clause, the Government retains accountability for, and title to, the property, and the Contractor shall comply with the following:

NASA Procedural Requirements (NPR) 4100, NASA Materials Inventory Management Manual

NASA Procedural Requirements (NPR) 4200, NASA Equipment Management Procedural Requirements

NASA Procedural Requirement (NPR) 4300, NASA Personal Property Disposal Procedural Requirements

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's purchase order shall require the vendor to deliver the property to the installation central receiving area.

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

(iii) The Contractor shall establish a record of the property as required by FAR 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.

(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-5 and J-8 .

(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: Instrument Calibration, Repair, and Metrology, Reproduction, Transportation, Security, Janitorial Service, Mail Service, Library Service, Tools.

(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.6 LIST OF GOVERNMENT PROPERTY FURNISHED PURSUANT TO FAR 52.245-1 (DEVIATION)(SEP 2007)

For performance of work under this contract, the Government will make available Government property identified below or in Attachment J-5 of 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 HOSC Building 4663 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.7 MSFC 52.204-90 CONTRACTOR EMPLOYEE BADGING AND EMPLOYMENT TERMINATION CLEARANCE (JUL 2006)

- (a) It is anticipated that performance of the requirements of this contract will require employee access to and picture badging by the Marshall Space Flight Center. Contractor requests for badging of employees shall be by MSFC Form 1739, "MSFC Contractor Badge/Decal Application." Requests for badging shall be submitted to the appointed Contracting Officer Technical Representative or the Contracting Officer for completion and approval prior to processing by the MSFC Protective Services Office.
- (b) The Contractor shall establish procedures to ensure that each badged employee is properly cleared in accordance with MSFC Form 383-1, "Contractor Employee Clearance Document," when the access is no longer needed.
- (c) Requests for copies of MSFC Forms 383-1, and 1739 shall be directed to the MSFC Protective Services Office, Marshall Space Flight Center, Alabama 35812.

(End of Clause)

G.8 Statement Of Equivalent Rates For Federal Hires (FAR 52.222-42) (MAY 1989)

In compliance with the Service Contract Act of 1965, as amended, and the regulations of the Secretary of Labor (29 CFR part 4), this clause identifies the classes of service employees expected to be employed under the contract and states the wages and fringe benefits payable to each if they were employed by the contracting agency subject to the provisions of 5 U.S.C. 5341 or 5332.

This Statement is for Information Only:
It is not a Wage Determination

A. Classification, Grade, Rates

<u>Classification</u>	<u>Grade</u>	<u>Rate</u>
Engineering Technician IV	GS-07	17.81
Engineering Technician V	GS-11	21.78
Material Coordinator	WG-07	18.41
Secretary II	GS-06	14.38
Accounting Clerk III	GS-06	14.38

B. Fringe Benefits (applicable to all classifications)

1. Insurance and Health Programs
Life, accident, and health insurance and sick leave programs (22 percent of basic hourly rate).

2. Holidays
 - a. New Year's Day
 - b. Martin Luther King, Jr. Day
 - c. Presidents' Day
 - d. Memorial Day
 - e. Independence Day
 - f. Labor Day
 - g. Columbus Day
 - h. Veterans' Day
 - i. Thanksgiving Day
 - j. Christmas Day

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

4. Retirement
1.5 percent of basic hourly rate plus Thrift Saving Plan plus Social Security.

(End of Clause)

[END OF SECTION]

SECTION H - SPECIAL CONTRACT REQUIREMENTS**H.1 Listing Of Clauses Incorporated By Reference**

NOTICE: The following contract clauses pertinent to this section are hereby incorporated by reference:

I. FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1)

CLAUSE NUMBER	DATE	TITLE
52.223-5	AUG 2003	POLLUTION PREVENTION AND RIGHT- TO-KNOW INFORMATION (ALTERNATE I) (AUG 2003) AND (ALTERNATE II) (AUG 2003)

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

CLAUSE NUMBER	DATE	TITLE
1852.208-81	NOV 2004	RESTRICTIONS ON PRINTING AND DUPLICATING
1852.223-70	APR 2002	SAFETY AND HEALTH
1852.223-74	MAR 1996	DRUG- AND ALCOHOL-FREE WORKFORCE
1852.223-75	FEB 2002	MAJOR BREACH OF SAFETY OR SECURITY
1852.228-75	OCT 1988	MINIMUM INSURANCE COVERAGE
1852.237-70	DEC 1988	EMERGENCY EVACUATION PROCEDURES
1852.242-72	AUG 1992	OBSERVANCE OF LEGAL HOLIDAYS ALTERNATE II (OCT 2000)
1852.242-78	APR 2001	EMERGENCY MEDICAL SERVICES AND EVACUATION

(End of Clause)

H.2 Key Personnel And Facilities (NFS 1852.235-71) (MAR 1989)

(a) The personnel and/or facilities listed below (or specified in the contract Schedule) are considered essential to the work being performed under this contract. Before removing, replacing, or diverting any of the listed or specified personnel or facilities, the Contractor shall (1) notify the Contracting Officer reasonably in advance and (2) submit justification (including proposed substitutions) in sufficient detail to permit evaluation of the impact on this contract.

(b) The Contractor shall make no diversion without the Contracting Officer's written consent; provided, that the Contracting Officer may ratify in writing the proposed change, and that ratification shall constitute the Contracting Officer's consent required by this clause.

(c) The list of personnel and/or facilities (shown below or as specified in the contract Schedule) may, with the consent of the contracting parties, be amended from time to time during the course of the contract to add or delete personnel and/or facilities.

No key personnel/facilities will be listed at this time

(End of Clause)

H.3 Asbestos Material (MSFC 52.223-90) (JUN 2002)

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

(End of Clause)

H.4 Hazardous Material Reporting (MSFC 52.223-91) (FEB 2001)

(a) If during the performance of this contract, the Contractor brings any hazardous materials (hazardous as defined under the latest version of Federal Standard No. 313, including revisions adopted during the term of the contract) on-site to the Marshall Space Flight Center, a completed MSFC Form 4099 (MSFC Chemical Inventory Addition) shall be immediately forwarded to the address on the form. The Contractor shall be responsible for ensuring that all Contractor/subcontractor personnel are made aware of and comply with this clause.

(b) Nothing contained in this clause shall relieve the Contractor from complying with applicable Federal, State, and local laws, codes, ordinances, and regulations (including

the obtaining of licenses and permits) in connection with hazardous material; or with other clauses regarding hazardous materials, which may be contained in the contract.

(End of Clause)

H.5 Labor Provisions

Service Contract Act: Pursuant to the requirements of the Service Contract Act of 1965, as amended, and the applicable clauses incorporated in Section I, the minimum wages to be paid service employees under this contract shall be those set forth in the Department of Labor Wage Determinations (Attachment J-10).

NOTICE- This solicitation and resulting contract are subject to the statutory provisions of the Service Contract Act of 1965, as amended, (Contract Clause 52.222-41), and the implementing regulations of the Act outlined in Title 29 Code of Federal Regulations, Part 4.

As a prospective bidder/contractor you are liable for the proper interpretation, application, implementation, and administration of the mandatory provisions of this Act. Therefore, it is imperative that you take appropriate action when preparing your proposal to assure compliance and ensure that your corporate policies are congruous with the spirit and intent of the law.

(End of Clause)

H.6 Export Licenses (NFS 1852.225-70)(FEB 2000)—Alternate I (FEB 2000)

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

(b) The Contractor shall be responsible for obtaining export licenses, if required, before utilizing foreign persons in the performance of this contract, including instances where the work is to be performed on-site at Marshall Space Flight Center or, at the NASA Moscow Technical Liaison Office, or at any NASA installation where the foreign person will have access to export-controlled technical data or software.

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

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

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

(End of Clause)

H.7 Subcontracts

(a) In accordance with the clause entitled "Subcontracts (Cost Reimbursement and Letter Contracts) -- Alternate I," the following classes of subcontracts are designated for special surveillance, and the Contractor shall obtain the Contracting Officer's written consent before placement:

- (1) All cost reimbursement subcontracts;
- (2) All fixed price subcontracts exceeding \$500,000 total value, including all options, if the Contractor has an approved purchasing system; and,
- (3) All fixed price subcontracts exceeding \$100,000 total value, including all options, if the Contractor does not have an approved purchasing system.

(b) In conducting procurements for IT resources, the Contractor shall comply with the acquisition planning, publication, and competition requirements as generally set forth in the Federal Acquisition Regulation (FAR), Parts 6 and 39. Before issuing a solicitation for any IT resource procurement estimated to exceed \$2,500,000 in total value, the Contractor shall obtain the Contracting Officer's prior written consent to proceed with the procurement.

(c) All subcontracts shall be in the name of the contractor and shall not bind nor purport to bind the Government in any manner.

(End of Clause)

H.8 Excluded Functions and Responsibilities

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

- Policy-making or management of NASA operations;
- NASA Program or project management;
- Technical management of Government contracts;
- NASA management planning, programming, budgeting, review, and analysis;
- Government purchasing, contracting, contract administration, acceptance of materials and/or performance, and pay and accounting therefore;
- Direction or supervision of other Government Contractors or Government agencies, or otherwise acting as an agent to obligate or commit NASA in any capacity;
- Clerical and other administration-type functions required to be performed by civil service personnel; and
- Supervision of Government employees.

(End of Clause)

H.9 Applicability Of Section Clauses To Subcontracts

In the event the Contractor enters into subcontract(s) for performance of any of the services required under the Performance Work Statement of this contract, the Contractor hereby agrees that, in addition to all other requirements, the intent and purpose of the following contract clauses will be incorporated in any such subcontract(s) where the type of subcontract, or work to be performed, could make the clause applicable. All other appropriate clauses shall also be included in any subcontract as deemed appropriate.

- B.5 Premium for Scheduled Overtime
- B.9 Contract Extension Resulting from Protests
- E.1 Inspection of Supplies -- Cost Reimbursement
Inspection of Services -- Cost Reimbursement
- G.1 Patent Rights—Retention By The Contractor (Short Form)
NASA Contractor Financial Management Reporting
- G.3 Designation of New Technology Representative and Patent Representative
- G.5 Installation-Accountable Government Property (Deviation)
- G.6 List Of Government Property Furnished Pursuant To Far 52.245-1 (Deviation)
- G.7 Contractor Employee Badging and Employment Termination Clearance

- G.8 Statement of Equivalent Rates for Federal Hires
- H.1 Restrictions on Printing and Duplicating
 - Safety and Health
 - Observance of Legal Holidays
 - Emergency Medical Services and Evacuation
- H.3 Asbestos Material
- H.4 Hazardous Material Reporting
- H.5 Labor Provisions
- H.6 Export Licenses
- H.8 Excluded Functions and Responsibility
- H.10 Safety Performance Evaluation

(End of Clause)

H.10 MSFC 52.223-94 SAFETY PERFORMANCE EVALUATION, EVALUATION CRITERIA, AND PERFORMANCE RECOGNITION (FEB 2008)

1. CONTRACTOR RESPONSIBILITY. The Contractor is responsible for maintaining an effective safety program during the course of the contract with a goal to achieve a world-class program within the term of the contract. The Contractor will ensure that the requirements of the MSFC approved Contractor's Safety and Health Plan and applicable Data Requirement Documents (DRD) are met. Contractor safety performance evaluation will be based on the MSFC safety program elements. The Contractor shall conduct an annual self-evaluation based on these criteria. The Contracting Officer (CO)/ Contracting Officer Technical Representative (COTR), in coordination with the MSFC Industrial Safety Branch, will validate the Contractor's self-evaluation.

Annually, the agreed score will be used to assess performance appropriately—positive or negative.

For the purpose of assessing the annual score, the Contractor and the CO/COTR, in coordination with the MSFC Industrial Safety Branch, will reach a mutually agreeable determination based on the metrics reflected in the attachment. In cases where the Contractor and CO/COTR cannot reach agreement, the MSFC Ombudsman will hear arguments from both sides and make a final decision. This process shall not preclude the CO from taking immediate action for any serious, willful, blatant, or continued violations of MSFC safety policy or procedures.

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

MANAGEMENT COMMITMENT AND EMPLOYEE INVOLVEMENT HAZARD PREVENTION AND CONTROL

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

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

3. PERFORMANCE RECOGNITION.

Contractor performance will be recognized as follows:

Level I - Annual rating score of ≥ 36 and a Lost Time Case Rate (LTC) $\leq 50\%$ of the LTC for the applicable North American Industry Classification System (NAICS) rate.	<i>Formal award with public recognition. Appropriate past performance referrals provided.</i>
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Exception: Contractors with less than 100 employees located onsite MSFC. To be rated in Level I, the contractor shall have no lost time injuries during the past year.

Level II - Annual rating score of ≥ 28 based on the annual assessment score, and a LTC $<$ the applicable NAICS rate and the scores remain the same, or reflect improved performance, from the previous period. If scores reflect a decrease in performance, no letter of commendation will be issued.	<i>Formal letter of commendation. Will impact contract evaluation and past performance referrals.</i>
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Exception: Contractors with less than 100 employees located onsite MSFC. To be rated in Level II, the contractor shall have no more than one lost time injury during the past year.

<p>Level III - Annual rating score of < 16 or a LTC NAICS rate.</p>	<p><i>Formal letter expressing concern. Corrective Action Plan requested. Data placed in Past Performance</i></p>
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Failure to improve could result in contract options not being exercised.

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

<p>If contractor's Safety Performance evaluation does not fall within the above categories.</p>	<p><i>No recognition</i></p>
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NOTE: The most current Department of Labor NAICS rate, effective at the beginning of the annual evaluation period, will be utilized for LTC evaluation. Lost Time Incidents shall be recorded in accordance with NASA requirements specified in MWI 8621.1, "Close Call and Mishap Reporting and Investigation Program." Final decisions on any disputed lost time injury determinations will be handled by established Government regulatory procedures.

4. CONTRACTOR ACCOUNTABILITY FOR MISHAPS.

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

5. EVALUATION PROCESS.

The evaluation process will be based on the major elements and their sub-elements cited in Paragraph 2.

The evaluation process will include these steps:

- Contractor to conduct annual self-assessment and assign numerical score to each element.

- Contractor self assessments will address compliance with their approved Safety and Health Plan.
- Contractor to have self-assessment validated by CO/COTR and Industrial Safety Branch.
- On an annual basis, the CO will apply contract incentives/recognition or consequences based on the average quarterly scores. The CO will make a
- determination annually for items requested in paragraph 6 that are not reported. *(Also, see paragraph 7 below.)*

The evaluation process will use the Safety Health Management Implementation Guide and Assessment Matrix at Attachment 1.

6. SAFETY METRIC REPORTING.

The contractor shall report safety metrics to the extent specified in the contract.

7. FAILURE TO REPORT

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

Safety Performance
Evaluation Summary

Evaluation Criteria and Performance Recognition

EVALUATION CRITERIA

- Management Commitment and Employee Involvement
- System and Worksite Hazard Analysis
- Hazard Prevention and Control
- Safety and Health Training

Score	≥ 36 points (Annual Score)	≥ 28 points (Annual Score)	≤ 16 points (Annual Score)
	and	and	or

<i>LTC</i>	<p>$\leq 50\%$ of the LTC for the applicable NAICS rate</p> <p>Exception: Contractors with less than 100 employees located onsite MSFC shall have <u>no</u> lost time injuries during the past year.</p>	<p>< the applicable NAICS rate</p> <p>Exception: Contractors with less than 100 employees located onsite MSFC shall have <u>no more than one</u> lost time injury during the past year.</p>	<p>> the applicable NAICS rate</p> <p>Exception: Contractors with less than 100 employees located onsite MSFC. A Level III rating will be given when <u>greater than two</u> lost time injuries are reported during the past year.</p>
Grade Levels	I	II	III
Recognition	Formal award publicly recognized. Appropriate Past Performance referrals provided.	Formal letter of commendation – will impact contract evaluation and past performance. (Score must either be the same score or and higher from the last evaluation.)	Formal letter expressing concern. Corrective Action Plan requested. Data placed in Past Performance Database. Failure to improve could result in Contract Options not being exercised.

NOTE: If the contractor’s safety performance evaluation does not fall within one of the above categories, no recognition will be provided.

▪ **Deductions**

- Failure to report information on all personnel and property mishaps that meet the criteria of a NASA NPR 8621.1B, on a monthly basis, will result in a deduction of \$1,000 for each occurrence of failure to report. Information to be reported includes items listed in paragraph 6 of the clause.

Safety Health (S) Management Implementation Guide and Assessment Matrix

Score	Commitment and Involvement (Element 1)		Worksite System and Analysis (Element 2)	Hazard Prevention and Control (Element 3)	Safety and Health Training (Element 4)
	A. Management	B. Employee			
10	Benchmarking indicates “best in Class.” In areas of visible management leadership, responsibility/accountability, meaningful metrics, and incentive/recognition systems.	Employees fully involved, safety committees functioning well, is a complete behavior process functioning at least one year, employees involved in process planning and risk assessment.	All sub-elements fully in place and functioning well for at least one year.	All programs and sub-elements fully functioning for one year, strong professional support.	All training processes functioning, all levels of personnel trained to identified needs, management training ongoing.
9	All sub-elements are in place and functioning well, but have as yet to reach full maturity.	All processes functioning but for limited time, employees involved to great extent.	All sub-elements in place, employees actively participating.	All programs and sub-elements in place and functioning.	All training processes established, management initial training complete.
8	One sub-element not fully in place but all are being implemented.	Most processes in place, employee involvement growing.	All sub-elements functioning, employee participation growing.	At least five sub-elements functioning and one in final stage of implementation.	Most personnel trained to identified needs, training recordkeeping and recall system functioning.
7	Two sub-elements not fully implemented. Implementation in	Process activities expanding through organization. Committees	At least five sub-elements functioning and remainder	At least four sub-elements functioning, remaining two	Management and supervisor training in process specialized

	process on all elements. Employee participation and commitment widespread.	and teams functioning.	established.	developing.	training in process.
6	All sub-elements in process or in place. Strong management leadership and commitment have begun, metric systems in place, resourcing appropriate.	Employee representatives functioning, joint committees functioning, participating in risk assessment and accident investigation.	At least four sub-elements functioning and remaining three in process, employee participation beginning to spread through organization.	Medical and safety programs strengthening, emergency preparedness program established and exercised.	Management training in process developed, supervisor training developed, training recordkeeping and recall system developed.
5	Management commitment and leadership accepted by workers, worker participation and commitment begun, metric system.	Employee representatives appointed/elected, committees beginning to perform functions (investigation, analysis, process improvement).	All sub-elements established, employees beginning to participate.	Rules written, medical and safety programs developing Personal Protective Equipment adequate.	Training template completed for all personnel, training needs identified, process development begun, recordkeeping and recall system being developed.
4	Management commitment and leadership flowing down to workers, metric systems being developed, incentive/recognition system in process.	All processes being established, involvement and awareness enhancement growing.	At least five sub-elements initiated including self-assessment, hazard reporting, and mishap close call investigations.	Rules in process, emergency preparedness program being developed.	Training development in process, specialized training established, mandatory training in process
3	Generally good management commitment and leadership, implementation plans approved for all elements.	All process needs identified, awareness and involvement enhancement activities begun.	Job Hazard analysis established, investigations strengthened and include employees.	Medical program initiated safety and health program initiated.	Training needs evaluation complete, training templates in process, recordkeeping and recall system needs to be established
2	Management exhibits some aspects of leadership, accountability systems not well defined, employee participation framework defined, limited metrics.	Committees established, little activity, employee involvement beginning, awareness of process started.	Plans established to implement all sub-elements, at least two sub-elements beginning to function.	Personal protective equipment requirements established and being enforced, plans developed for other elements.	Training needs evaluation begun, training template forms developed.
1	Sub-elements have not been established to any significant extent, management leadership is lacking, little or no employee participation.	No committees, little or no employee involvement, no process, little process planning.	Two or fewer sub-elements established, no self-inspection, shallow accident investigation process.	Few or no programs or sub-elements established, few written rules, limited enforcement.	Training needs not established, no management training, limited or no supervisor training.

(End of Clause)

H. 11 Minimum Insurance Coverage. (NFS 1852.228-75) (OCT 1988)

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

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

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

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

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

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

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

(End of clause)

H.12 Engineering Change Proposals (NFS 1852.243-70) (October 2001)--Alternate II (September 1990)

(a) Definitions.

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

(b) Either party to the contract may originate ECPs. Implementation of an approved ECP may occur by either a supplemental agreement or, if appropriate, as a written change order to the contract.

(c) Any ECP submitted to the Contracting Officer shall include a "not-to-exceed" estimated cost increase or decrease adjustment amount, if any, and the required [time of delivery or period of performance] adjustment, if any, acceptable to the originator of the ECP. If the change is originated within the Government, the Contracting Officer shall obtain a written agreement with the contractor regarding the "not-to-exceed" estimated cost and period of performance adjustments, if any, prior to issuing an order for implementation of the change. An ECP accepted in accordance with the Changes clause of this contract shall not be considered an authorization to the Contractor to exceed the estimated cost in the contract Schedule, unless the estimated cost is increased by the change order or other contract modification.

(d) After submission of a contractor initiated ECP, the contracting officer may require the contractor to submit the following information:

(1) Cost or pricing data in accordance with FAR 15.403-5 if the proposed change meets the criteria for its submission under FAR 15.403-4; or

(2) Information other than cost or pricing data adequate for contracting officer determination of price reasonableness or cost realism. The contracting officer reserves the right to request additional information if that provided by the contractor is considered inadequate for that purpose. If the contractor claims applicability of one of the exceptions to submission of cost or pricing data, it shall cite the exception and provide rationale for its applicability.

(e) If the ECP is initiated by NASA, the contracting officer shall specify the cost information requirements, if any.

(End of clause)

H. 13 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 based upon the fact that this contract requires the Contractor to provide systems engineering and technical expertise to help define, test, verify, and deliver the Command Control Communications and Information (C3I) and ARES I data systems architecture team products for future NASA exploration projects or programs. Future solicitation(s) for these products may include specifications or statements of work that are derived from or based in whole or in part on the services provided by the Contractor under this contract.

(c) In order mitigate or avoid the possibility that the Contractor may actually develop specifications or statements of work described in paragraph (b), above, that may lead to an organizational conflict of interest, the Contractor shall fully comply with the approved Organizational Conflict of Interest Avoidance Plan submitted pursuant to Data Requirements

Document 1016-MA-009 of this contract. If the contracting officer determines that the Contractor has not fully complied with the Conflict of Interest Avoidance Plan, which results in an actual organizational conflict of interest, the restrictions upon future contracting, are as follows:

(1) If the Contractor, under the terms of this contract, or through the performance of tasks pursuant to this contract, is required to develop specifications or statements of work that are to be incorporated into a solicitation, the Contractor 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). NASA shall not unilaterally require the Contractor to prepare such specifications or statements of work under this contract.

(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. 14 Section 508 of the Rehabilitation Act of 1973 - Section 508 of the Rehabilitation Act of 1973 is applicable to this contract. The contractor shall comply with all technical standards of 1194.21 through 1194.26 as outlined in url <http://www.section508.gov/index.cfm?FuseAction=Content&ID=12> as applicable.

(End of clause)

**H.15 MSFC 52.223-93 ADVANCED NOTIFICATION OF CONTRACTOR
EMPLOYEE DISCIPLINE OR INVOLUNTARY TERMINATION (FEB 2008)**

The Contractor agrees to coordinate with the Investigations Unit Lead Investigator in the MSFC Protective Services Office before taking any action to discipline or involuntarily terminate any of its onsite employees. In addition, the Contractor agrees to immediately notify the Investigations Unit Lead Investigator in the MSFC Protective Services Office if any of its onsite employees exhibit any established indicators of potentially violent behavior.

(End of Clause)

[END OF SECTION]

SECTION I - CONTRACT CLAUSES

I.1 Listing Of Clauses Incorporated By Reference

NOTICE: The following contract clauses pertinent to this section are hereby incorporated by reference:

I. FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1)

CLAUSE NUMBER	DATE	TITLE
52.202-1	JUL 2004	DEFINITIONS
52.203-3	APR 1984	GRATUITIES
52.203-5	APR 1984	COVENANT AGAINST CONTINGENT FEES
52.203-6	SEP 2006	RESTRICTIONS ON SUBCONTRACTOR SALES TO THE GOVERNMENT
52.203-7	JUL 1995	ANTI-KICKBACK PROCEDURES
52.203-8	JAN 1997	CANCELLATION, RESCISSION AND RECOVERY OF FUNDS FOR ILLEGAL OR IMPROPER ACTIVITY
52.203-10	JAN 1997	PRICE OR FEE ADJUSTMENT FOR ILLEGAL OR IMPROPER ACTIVITY
52.203-12	SEP 2007	LIMITATION ON PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS
52.203-13	DEC 2007	CONTRACTOR CODE OF BUSINESS ETHICS AND CONDUCT
52.204-2	AUG 1996	SECURITY REQUIREMENTS
52.204-4	AUG 2000	PRINTED OR COPIED DOUBLE-SIDED ON RECYCLED PAPER
52.204-7	JUL 2006	CENTRAL CONTACTOR REGISTRATION
52.204-9	SEP 2007	PERSONAL IDENTITY VERIFICATION (PIV) OF CONTRACTOR PERSONNEL
52.209-6	SEP 2006	PROTECTING THE GOVERNMENT'S INTEREST WHEN SUBCONTRACTING WITH CONTRACTORS DEBARRED, SUSPENDED, OR PROPOSED FOR DEBARMENT
52.215-2	JUN 1999	AUDIT AND RECORDS--NEGOTIATION
52.215-8	OCT 1997	ORDER OF PRECEDENCE - UNIFORM CONTRACT FORMAT
52.215-10	OCT 1997	PRICE REDUCTION FOR DEFECTIVE COST OR PRICING DATA
52.215-11	OCT 1997	PRICE REDUCTION FOR DEFECTIVE COST OR PRICING DATA--MODIFICATIONS
52.215-12	OCT 1997	SUBCONTRACTOR COST OR PRICING DATA

52.215-13	OCT 1997	SUBCONTRACTOR COST OR PRICING DATA-- MODIFICATIONS
52.215-14	OCT 1997	INTEGRITY OF UNIT PRICES
52.215-15	OCT 2004	PENSION ADJUSTMENTS AND ASSET REVERSIONS
52.215-18	JUL 2005	REVERSION OR ADJUSTMENT OF PLANS FOR POSTRETIREMENT BENEFITS (PRB) OTHER THAN PENSIONS
52.215-19	OCT 1997	NOTIFICATION OF OWNERSHIP CHANGES
52.215-21	OCT 1997	REQUIREMENTS FOR COST OR PRICING DATA OR INFORMATION OTHER THAN COST OR PRICING DATA -- MODIFICATIONS
52.216-7	Dec 2002	ALLOWABLE COST AND PAYMENT
52.217-2	OCT 1997	CANCELLATION UNDER MULTIYEAR CONTRACTS
52.217-8	NOV 1999	OPTION TO EXTEND SERVICES
52.219-6	JUN 2003	NOTICE OF TOTAL SMALL BUSINESS SET- ASIDE
52.219-8	MAY 2004	UTILIZATION OF SMALL BUSINESS CONCERNS
52.219-14	DEC 1996	LIMITATION ON SUBCONTRACTING
52.222-1	FEB 1997	NOTICE TO THE GOVERNMENT OF LABOR DISPUTES
52.222-2	JUL 1990	PAYMENT FOR OVERTIME PREMIUMS
		Insert "\$ See Section B " in paragraph (a).
52.222-3	JUN 2003	CONVICT LABOR
52.222-19	FEB 2008	CHILD LABOR-COOPERATION WITH AUTHORITIES AND REMEDIES
52.222-21	FEB 1999	PROHIBITION OF SEGREGATED FACILITIES
52.222-37	SEP 2006	EMPLOYMENT REPORTS ON SPECIAL DISABLED VETERANS, VETERANS OF THE VIETNAM ERA, AND OTHER ELIGIBLE VETERANS
52.222-41	NOV 2007	SERVICE CONTRACT ACT OF 1965
52.223-6	MAY 2001	DRUG-FREE WORKPLACE
52.223-10	AUG 2000	WASTE REDUCTION PROGRAM
52.225-1	JUN 2003	BUY AMERICAN ACT-SUPPLIES
52.225-13	JUN 2008	RESTRICTIONS ON CERTAIN FOREIGN PURCHASES
52.227-1	DEC 2007	AUTHORIZATION AND CONSENT
52.227-2	DEC 2007	NOTICE AND ASSISTANCE REGARDING PATENT AND COPYRIGHT INFRINGEMENT
52.227-11	DEC 2007	PATENT RIGHTS-OWNERSHIP BY THE CONTRACTOR (AS MODIFIED BY THE NASA FAR SUPPLEMENT 1852.227-11)
52.227-14	DEC 2007	RIGHTS IN DATA--GENERAL As modified by 1852.227-14 NASA FAR Supplement
52.227-16	JUN 1987	ADDITIONAL DATA REQUIREMENTS
52.228-7	MAR 1996	INSURANCE--LIABILITY TO THIRD PERSONS

52.232-9	APR 1984	LIMITATION ON WITHHOLDING OF PAYMENTS
52.232-17	OCT 2008	INTEREST
52.232-22	APR 1984	LIMITATION OF FUNDS
52.232-23	JAN 1986	ASSIGNMENT OF CLAIMS
52.232-25	OCT 2008	PROMPT PAYMENT (ALTERNATE I) (FEB 2002)
52.232-33	OCT 2003	PAYMENT BY ELECTRONIC FUNDS TRANSFER - CENTRAL CONTRACTOR REGISTRATION
52.233-1	JUL 2002	DISPUTES
52.233-3	AUG 1996	PROTEST AFTER AWARD (ALTERNATE I) (JUN 1985)
52.237-2	APR 1984	PROTECTION OF GOVERNMENT BUILDINGS, EQUIPMENT, AND VEGETATION
52.237-3	JAN 1991	CONTINUITY OF SERVICES
52.242-1	APR 1984	NOTICE OF INTENT TO DISALLOW COSTS
52.242-3	MAY 2001	PENALTIES FOR UNALLOWABLE COSTS
52.242-4	JAN 1997	CERTIFICATION OF FINAL INDIRECT COSTS
52.242-13	JUL 1995	BANKRUPTCY
52.243-2	AUG 1987	CHANGES--COST-REIMBURSEMENT (ALTERNATE I) (APR 1984)
52.244-2	JUN 2007	SUBCONTRACTS (ALTERNATE I) (JUN 2007)
52.244-5	DEC 1996	COMPETITION IN SUBCONTRACTING
52.245-1	JUN 2007	GOVERNMENT PROPERTY
52.246-25	FEB 1997	LIMITATION OF LIABILITY-SERVICES
52.247-1	FEB 2006	COMMERCIAL BILL OF LADING NOTATIONS
52.248-1	FEB 2000	VALUE ENGINEERING
52.249-6	MAY 2004	TERMINATION (COST-REIMBURSEMENT)
52.249-14	APR 1984	EXCUSABLE DELAYS
52.251-1	APR 1984	GOVERNMENT SUPPLY SOURCES
52.253-1	JAN 1991	COMPUTER GENERATED FORMS
52.251-2	Jan 1991	INTERAGENCY FLEET MANAGEMENT SYSTEM VEHICLES AND RELATED SERVICES

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

CLAUSE NUMBER	DATE	TITLE
1852.204-76	MAY 2007	SECURITY REQUIREMENTS FOR UNCLASSIFIED INFORMATION TECHNOLOGY RESOURCES
1852.216-89	JUL 1997	ASSIGNMENT AND RELEASE FORMS
1852.219-74	SEP 1990	USE OF RURAL AREA SMALL BUSINESSES
1852.219-76	JUL 1997	NASA 8 PERCENT GOAL
1852.223-76	JUL 2003	FEDERAL AUTOMOTIVE STATISTICAL TOOL REPORTING

I.2 Approval Of Contract (FAR 52.204-1) (DEC 1989)

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

(End of Clause)

I.3 Equal Opportunity (FAR 52.222-26) (MAR 2007) (Alternate I) (FEB 1999)

Notice: The following terms of this clause are waived for this contract: None

(a) *Definition.* "United States," as used in this clause, 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)(1) If, during any 12-month period (including the 12 months preceding the award of this contract), the Contractor has been or is awarded nonexempt Federal contracts and/or subcontracts that have an aggregate value in excess of \$10,000, the Contractor shall comply with this clause, except for work performed outside the United States by employees who were not recruited within the United States. Upon request, the Contractor shall provide information necessary to determine the applicability of this clause.

(2) If the Contractor is a religious corporation, association, educational institution, or society, the requirements of this clause do not apply with respect to the employment of individuals of a particular religion to perform work connected with the carrying on of the Contractor's activities (41 CFR 60-1.5).

(c)(1) The Contractor shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. However, it shall not be a violation of this clause for the Contractor to extend a publicly announced preference in employment to Indians living on or near an Indian reservation, in connection with employment opportunities on or near an Indian reservation, as permitted by 41 CFR 60-1.5.

(2) The Contractor shall take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, or national origin. This shall include, but not be limited to-

- (i) Employment;
- (ii) Upgrading;
- (iii) Demotion;
- (iv) Transfer;
- (v) Recruitment or recruitment advertising;

(vi) Layoff or termination;

(vii) Rates of pay or other forms of compensation; and

(viii) Selection for training, including apprenticeship.

(3) The Contractor shall post in conspicuous places available to employees and applicants for employment the notices to be provided by the Contracting Officer that explain this clause.

(4) The Contractor shall, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.

(5) The Contractor shall send, to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, the notice to be provided by the Contracting Officer advising the labor union or workers' representative of the Contractor's commitments under this clause, and post copies of the notice in conspicuous places available to employees and applicants for employment.

(6) The Contractor shall comply with Executive Order 11246, as amended, and the rules, regulations, and orders of the Secretary of Labor.

(7) The Contractor shall furnish to the contracting agency all information required by Executive Order 11246, as amended, and by the rules, regulations, and orders of the Secretary of Labor. The Contractor shall also file Standard Form 100 (EEO-1), or any successor form, as prescribed in 41 CFR Part 60-1. Unless the Contractor has filed within the 12 months preceding the date of contract award, the Contractor shall, within 30 days after contract award, apply to either the regional Office of Federal Contract Compliance Programs (OFCCP) or the local office of the Equal Employment Opportunity Commission for the necessary forms.

(8) The Contractor shall permit access to its premises, during normal business hours, by the contracting agency or the OFCCP for the purpose of conducting on-site compliance evaluations and complaint investigations. The Contractor shall permit the Government to inspect and copy any books, accounts, records (including computerized records), and other material that may be relevant to the matter under investigation and pertinent to compliance with Executive Order 11246, as amended, and rules and regulations that implement the Executive Order.

(9) If the OFCCP determines that the Contractor is not in compliance with this clause or any rule, regulation, or order of the Secretary of Labor, this contract may be canceled, terminated, or suspended in whole or in part and the Contractor may be declared ineligible for further Government contracts, under the procedures authorized in Executive Order 11246, as amended. In addition, sanctions may be imposed and remedies invoked against the Contractor as provided in Executive Order 11246, as amended; in the rules, regulations, and orders of the Secretary of Labor; or as otherwise provided by law.

(10) The Contractor shall include the terms and conditions of this clause in every subcontract or purchase order that is not exempted by the rules, regulations, or orders of the Secretary of Labor issued under Executive Order 11246, as amended, so that these terms and conditions will be binding upon each subcontractor or vendor.

(11) The Contractor shall take such action with respect to any subcontract or purchase order as the Contracting Officer may direct as a means of enforcing these terms and conditions, including sanctions for noncompliance, provided, that if the Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of any direction, the Contractor may request the United States to enter into the litigation to protect the interests of the United States.

(d) Notwithstanding any other clause in this contract, disputes relative to this clause will be governed by the procedures in 41 CFR 60-1.1.

(End of clause)

I.4 Equal Opportunity for Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans (FAR 52.222-35) (SEP 2006) (Alternate I) (DEC 2001)

Notice: The following term(s) of this clause are waived for this contract:

None

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

"All employment openings" means all positions except executive and top management, those positions that will be filled from within the Contractor's organization, and positions lasting 3 days or less. This term includes full-time employment, temporary employment of more than 3 days duration, and part-time employment.

"Executive and top management" means any employee-

(1) Whose primary duty consists of the management of the enterprise in which the individual is employed or of a customarily recognized department or subdivision thereof;

(2) Who customarily and regularly directs the work of two or more other employees;

(3) Who has the authority to hire or fire other employees or whose suggestions and recommendations as to the hiring or firing and as to the advancement and promotion or any other change of status of other employees will be given particular weight;

(4) Who customarily and regularly exercises discretionary powers; and

(5) Who does not devote more than 20 percent or, in the case of an employee of a retail or service establishment, who does not devote more than 40 percent of total hours of work in the work week to activities that are not directly and closely related to the performance of the work described in paragraphs (1) through (4) of this definition. This paragraph (5) does not apply in the case of an employee who is in sole charge of an establishment or a physically separated branch establishment, or who owns at least a 20 percent interest in the enterprise in which the individual is employed.

"Other eligible veteran" means any other veteran who served on active duty during a war or in a campaign or expedition for which a campaign badge has been authorized.

"Positions that will be filled from within the Contractor's organization" means employment openings for which the Contractor will give no consideration to persons outside the Contractor's organization (including any affiliates, subsidiaries, and parent companies) and includes any openings the Contractor proposes to fill from regularly established "recall" lists. The exception does not apply to a particular opening once an employer decides to consider applicants outside of its organization.

"Qualified special disabled veteran" means a special disabled veteran who satisfies the requisite skill, experience, education, and other job-related requirements of the employment position such veteran holds or desires, and who, with or without reasonable accommodation, can perform the essential functions of such position.

"Special disabled veteran" means-

(1) A veteran who is entitled to compensation (or who but for the receipt of military retired pay would be entitled to compensation) under laws administered by the Department of Veterans Affairs for a disability-

(i) Rated at 30 percent or more; or

(ii) Rated at 10 or 20 percent in the case of a veteran who has been determined under 38 U.S.C. 3106 to have a serious employment handicap (*i.e.*, a significant impairment of the veteran's ability to prepare for, obtain, or retain employment consistent with the veteran's abilities, aptitudes, and interests); or

(2) A person who was discharged or released from active duty because of a service-connected disability.

"Veteran of the Vietnam era" means a person who-

(1) Served on active duty for a period of more than 180 days and was discharged or released from active duty with other than a dishonorable discharge, if any part of such active duty occurred-

(i) In the Republic of Vietnam between February 28, 1961, and May 7, 1975; or

(ii) Between August 5, 1964, and May 7, 1975, in all other cases; or

(2) Was discharged or released from active duty for a service-connected disability if any part of the active duty was performed-

(i) In the Republic of Vietnam between February 28, 1961, and May 7, 1975; or

(ii) Between August 5, 1964, and May 7, 1975, in all other cases.

(b) General.

(1) The Contractor shall not discriminate against the individual because the individual is a special disabled veteran, a veteran of the Vietnam era, or other eligible veteran, regarding any position for which the employee or applicant for employment is qualified. The Contractor shall take affirmative action to employ, advance in employment, and otherwise treat qualified special disabled veterans, veterans of the Vietnam era, and other eligible veterans without discrimination based upon their disability or veterans' status in all employment practices such as-

- (i) Recruitment, advertising, and job application procedures;
- (ii) Hiring, upgrading, promotion, award of tenure, demotion, transfer, layoff, termination, right of return from layoff and rehiring;
- (iii) Rate of pay or any other form of compensation and changes in compensation;
- (iv) Job assignments, job classifications, organizational structures, position descriptions, lines of progression, and seniority lists;
- (v) Leaves of absence, sick leave, or any other leave;
- (vi) Fringe benefits available by virtue of employment, whether or not administered by the Contractor;
- (vii) Selection and financial support for training, including apprenticeship, and on-the-job training under 38 U.S.C. 3687, professional meetings, conferences, and other related activities, and selection for leaves of absence to pursue training;
- (viii) Activities sponsored by the Contractor including social or recreational programs; and
- (ix) Any other term, condition, or privilege of employment.

(2) The Contractor shall comply with the rules, regulations, and relevant orders of the Secretary of Labor issued under the Vietnam Era Veterans' Readjustment Assistance Act of 1972 (the Act), as amended (38 U.S.C. 4211 and 4212).

(c) Listing openings.

(1) The Contractor shall immediately list all employment openings that exist at the time of the execution of this contract and those which occur during the performance of this contract, including those not generated by this contract, and including those occurring at an establishment of the Contractor other than the one where the contract is being performed, but excluding those of independently operated corporate affiliates, at an appropriate local public employment service office of the State wherein the opening occurs. Listing employment openings with the U.S. Department of Labor's America's Job Bank shall satisfy the requirement to list jobs with the local employment service office.

(2) The Contractor shall make the listing of employment openings with the local employment service office at least concurrently with using any other recruitment source or effort and shall

involve the normal obligations of placing a bona fide job order, including accepting referrals of veterans and nonveterans. This listing of employment openings does not require hiring any

particular job applicant or hiring from any particular group of job applicants and is not intended to relieve the Contractor from any requirements of Executive orders or regulations concerning nondiscrimination in employment.

(3) Whenever the Contractor becomes contractually bound to the listing terms of this clause, it shall advise the State public employment agency in each State where it has establishments of the name and location of each hiring location in the State. As long as the Contractor is contractually bound to these terms and has so advised the State agency, it need not advise the State agency of subsequent contracts. The Contractor may advise the State agency when it is no longer bound by this contract clause.

(d) *Applicability.* This clause does not apply to the listing of employment openings that occur and are filled outside the 50 States, the District of Columbia, the Commonwealth of Puerto Rico, the Commonwealth of the Northern Mariana Islands, American Samoa, Guam, the Virgin Islands of the United States, and Wake Island.

(e) Postings.

(1) The Contractor shall post employment notices in conspicuous places that are available to employees and applicants for employment.

(2) The employment notices shall-

(i) State the rights of applicants and employees as well as the Contractor's obligation under the law to take affirmative action to employ and advance in employment qualified employees and applicants who are special disabled veterans, veterans of the Vietnam era, and other eligible veterans; and

(ii) Be in a form prescribed by the Deputy Assistant Secretary for Federal Contract Compliance Programs, Department of Labor (Deputy Assistant Secretary of Labor), and provided by or through the Contracting Officer.

(3) The Contractor shall ensure that applicants or employees who are special disabled veterans are informed of the contents of the notice (e.g., the Contractor may have the notice read to a visually disabled veteran, or may lower the posted notice so that it can be read by a person in a wheelchair).

(4) The Contractor shall notify each labor union or representative of workers with which it has a collective bargaining agreement, or other contract understanding, that the Contractor is bound by the terms of the Act and is committed to take affirmative action to employ, and advance in employment, qualified special disabled veterans, veterans of the Vietnam era, and other eligible veterans.

(f) *Noncompliance.* If the Contractor does not comply with the requirements of this clause, the Government may take appropriate actions under the rules, regulations, and relevant orders of the Secretary of Labor issued pursuant to the Act.

(g) *Subcontracts*. The Contractor shall insert the terms of this clause in all subcontracts or purchase orders of \$100,000 or more unless exempted by rules, regulations, or orders of the Secretary of Labor. The Contractor shall act as specified by the Deputy Assistant Secretary of Labor to enforce the terms, including action for noncompliance.

(End of clause)

I.5 Affirmative Action For Workers With Disabilities (FAR 52.222-36) (JUN 1998)
Alternate I (JUN 1998)

Notice: The following term(s) of this clause are waived for this contract: None

(a) General.

(1) Regarding any position for which the employee or applicant for employment is qualified, the Contractor shall not discriminate against any employee or applicant because of physical or mental disability. The Contractor agrees to take affirmative action to employ, advance in employment, and otherwise treat qualified individuals with disabilities without discrimination based upon their physical or mental disability in all employment practices such as--

- (i) Recruitment, advertising, and job application procedures;
- (ii) Hiring, upgrading, promotion, award of tenure, demotion, transfer, layoff, termination, right of return from layoff, and rehiring;
- (iii) Rates of pay or any other form of compensation and changes in compensation;
- (iv) Job assignments, job classifications, organizational structures, position descriptions, lines of progression, and seniority lists;
- (v) Leaves of absence, sick leave, or any other leave;
- (vi) Fringe benefits available by virtue of employment, whether or not administered by the Contractor;
- (vii) Selection and financial support for training, including apprenticeships, professional meetings, conferences, and other related activities, and selection for leaves of absence to pursue training;
- (viii) Activities sponsored by the Contractor, including social or recreational programs; and
- (ix) Any other term, condition, or privilege of employment.

(2) The Contractor agrees to comply with the rules, regulations, and relevant orders of the Secretary of Labor (Secretary) issued under the Rehabilitation Act of 1973 (29 U.S.C. 793) (the Act), as amended.

(b) Postings.

(1) The Contractor agrees to post employment notices stating--

- (i) The Contractor's obligation under the law to take affirmative action to employ and advance in employment qualified individuals with disabilities; and
- (ii) The rights of applicants and employees.

(2) These notices shall be posted in conspicuous places that are available to employees and applicants for employment. The Contractor shall ensure that applicants and employees with disabilities are informed of the contents of the notice (e.g., the Contractor may have the notice read to a visually disabled individual, or may lower the posted notice so that it might be read by a person in a wheelchair). The notices shall be in a form prescribed by the Deputy Assistant Secretary for Federal Contract Compliance of the U.S. Department of Labor (Deputy Assistant Secretary) and shall be provided by or through the Contracting Officer.

(3) The Contractor shall notify each labor union or representative of workers with which it has a collective bargaining agreement or other contract understanding, that the Contractor is bound by the terms of Section 503 of the Act and is committed to take affirmative action to employ, and advance in employment, qualified individuals with physical or mental disabilities.

(c) Noncompliance.

If the Contractor does not comply with the requirements of this clause, appropriate actions may be taken under the rules, regulations, and relevant orders of the Secretary issued pursuant to the Act.

(d) Subcontracts.

The Contractor shall include the terms of this clause in every subcontract or purchase order in excess of \$10,000 unless exempted by rules, regulations, or orders of the Secretary. The Contractor shall act as specified by the Deputy Assistant Secretary to enforce the terms, including action for noncompliance.

(End of Clause)

I.6 Clauses Incorporated By Reference (FAR 52.252-2) (FEB 1998)

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

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

http://www.hq.nasa.gov/office/procurement/regs/nfstoc.htm
http://ec.msfc.nasa.gov/msfc/msfc_uni.html

(End of Clause)

I.7 Ombudsman NFS 1852.215-84(OCT 2003) (Alternate 1)(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 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,

National Aeronautics and Space Administration
DE01/Robin N. Henderson
Building 4200 Room 918A
George C. Marshall Space Flight Center
Marshall Space Flight Center, AL 35812

Telephone number: (256) 544-1919
Facsimile number: (256) 544-7920
E-Mail address: robin.n.henderson@nasa.gov

Concerns, issues, disagreements, and recommendations which cannot be resolved at the installation may be referred to the NASA ombudsman, the Director of the Contract Management Division, at 202-358-0445, facsimile 202-358-3083, e-mail james.a.balinskas@nasa.gov. Please do not contact the ombudsman to request copies of the solicitation, verify offer due date, or clarify technical requirements. Such inquiries shall be directed to the Contracting Officer or as specified elsewhere in this document.

(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.8 Representations, Certifications, And Other Statements Of Offerors Or Quoters
Incorporated By Reference (MSFC 52.252-90) (FEB 2001)**

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

(End of Clause)

I.9 Access to Sensitive Information NFS 1852.237-72(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. 10 Release of Sensitive Information NFS 1852.237-73(JUN 2005)

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

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

[END OF SECTION]

PART III - LIST OF DOCUMENTS, EXHIBITS AND OTHER ATTACHMENTS

SECTION J - LIST OF ATTACHMENTS

<u>Attachments</u>	<u>Title</u>	<u>Pages</u>
J-1	Performance Work Statement	J-1-1 through J-1-32
J-2	Data Procurement Document	J-2-1 through J-2-45
J-3	Applicable Regulations and Procedures	J-3-1 through J-3-3
J-4	Acronyms and Abbreviations	J-4-1 through J-4-11
J-5	Installation Accountable Property	J-5-1 through J-5-83
J-6	Work Breakdown Structure	J-6-1 through J-6-3
J-7	Fee Evaluation Plans	J-7-1 through J-7-6
J-8	Installation-Provided Property and Services	J-8-1 through J-8-2
J-9	SCA Wage Determination	J-9-1 through J-9-57
J-10	NASA Values	J-10-1 through J-10-1

ATTACHMENT J-1**PERFORMANCE WORK STATEMENT (PWS)****1.0 General**

This Performance Work Statement is divided into four paragraphs. Paragraph 1.0 introduces the PWS and provides a background of the HOSC and its related facilities. Paragraph 2.0 describes all management functions required which are applied to the programs and projects supported by the HOSC. Paragraphs 3.0 and 4.0 describe the engineering and operations services, respectively, to be applied to the programs and projects supported by the HOSC.

The principal place of performance of these activities is Marshall Space Flight Center (MSFC) located in Huntsville, Alabama, and the Michoud Assembly Facility (MAF) located in New Orleans, Louisiana. MSFC is a tenant to the U.S. Army on Redstone Arsenal. The HOSC is located within building 4663, which is at the corner of Martin Road and Dodd Road. All operational activity is located in MSFC building 4663 and MAF building 420. The contractor will be provided office and general engineering space, as required, within building 4663 or at other locations at MSFC and MAF.

The HOSC provides multi-program facilities, systems, and services, both local and remote, which support various mission phases of spacecraft payload and propulsion systems operations. Programs currently supported by the HOSC include the Space Shuttle, the International Space Station (ISS), the Chandra X-Ray Observatory (CXO) and the Constellation Program. The HOSC services are scalable to support additional programs.

The HOSC has the capability to support all phases of missions including planning, testing, simulations, pre-launch, launch, and all aspects of flight operations, as required by the various programs.

The contractor's mission is to provide system life-cycle development services and operations and maintenance to meet the requirements of the Mission Operations Laboratory (MOL) and its customers. The requirements defined in this PWS are for the HOSC and its related facilities and systems. Customers may be on-site, off-site, or at international locations.

The product-oriented development activities involved in this contract encompass all aspects of the entire life-cycle of ground systems development. Typical activities include: requirements definition, analysis and documentation; configuration management; systems, hardware, software and network engineering; technology transfer; and design, development, verification, validation, and implementation.

The service-oriented maintenance and operations activities include: sustaining engineering of developed systems at both local and remote locations; operations activity

preparation and simulation; flight evaluation activities; hardware and software maintenance; systems and facilities operations; data collection, processing, distribution, and archiving; validation and verification of data products and systems; and maintenance and operations of all systems.

For the purpose of this PWS, the customer is defined as the end-user of the services described. A MOL customer may be an organization such as a National Aeronautics and Space Administration (NASA) program, project office, staff office, NASA contractor, payload developer, educational institution, International Partner Space Agency or an individual within these organizations.

2.0 Management

The overall contractor program management responsibilities for the services and functions addressed in this PWS are exercised through the contractor management structure. The contractor shall be responsible for implementing, managing, measuring, and participating, in all internal and external processes necessary for the adequate execution of the activities described in this PWS. The contractor shall be governed by the processes defined within the Marshall Management System and the cited NASA Policy Directives (NPDs), NASA Procedural Requirements (NPRs), Marshall Policy Directives (MPDs), Marshall Procedural Requirements (MPRs), Marshall Work Instructions (MWIs), and the MOL Organizational Issuances (OIs). The Marshall Management System is documented in MPD1280.1, Marshall Quality Management System Manual.

The Agency's four shared values support NASA's commitment to technical excellence and express the ethics that guide the Agency's behavior. These values are the underpinnings of NASA's spirit and resolve. The contractor is expected to embrace, and operate within these values while performing the work defined in this PWS. As a result of this commitment, Marshall has established and manages by a MSFC Safety, Health, and Environmental (SHE) Policy, a Quality Policy, and the Core Values of Safety, Teamwork, Integrity and Mission Success. Further definition of the Core Values is contained in Attachment J-11, NASA Values.

The MSFC SHE Policy, is:

SAFETY: MSFC strives to prevent human injury and ensure the safety of all operations and products leading to mission success.

HEALTH: MSFC strives to prevent occupational illnesses and promote and maintain the physical and mental well-being of its employees to help ensure mission success.

ENVIRONMENTAL: Enabling Marshall's mission through environmental compliance and stewardship.

The Marshall Quality Policy is to provide quality products and services to our customers and partners through the NASA values: Safety, Teamwork, Integrity, and Mission Success.

2.1 Contract Management

The contractor shall provide, implement and maintain the requisite organization, disciplines and systems necessary to manage the personnel and resources required for the performance of these functions. These functions shall be applied to the HOSC programs and projects commensurate to the level and complexity of activity. These management services shall be applied to the programmatic requirements of MSFC-PLAN-904, HOSC Functional Requirements and Implementation Plan.

The contractor shall ensure that HOSC and related facilities capabilities and configurations fully support mission operations and development objectives in accordance with the EO-PLAN-001, Mission Operations Laboratory Management Plan. The contractor shall develop, implement, maintain and operate systems for planning, scheduling, controlling and reporting all HOSC services and functions and for analyzing and reporting contract performance. In performance of program management, the contractor shall:

- a. Prepare and maintain a Management Plan for the contracted effort in accordance with DRD 1016MA-001, Management Plan.
- b. Prepare and deliver Badged Employee and Remote IT User Listings in accordance with DRD 1016MA-010.
- c. Develop and maintain project, system, and facility schedules and staffing plans.
- d. Prepare and submit for approval status reports, metrics data, and documentation. as required by DRD 1016MA-003, Monthly Progress Reports.
- e. Provide necessary software and system development tools including hardware necessary to provide cost efficient development and operations.
- f. Provide training of personnel supporting HOSC mission operations in accordance with HOSC-PLAN-209, Console Training and Certification Plan. These activities shall ensure the technical competence of personnel assigned to mission support positions and their ability to perform in a mission support environment. The contractor shall provide training in support of engineering and software design and development activities.
- g. Provide, implement, and maintain adequate controls including contractor policies and procedures governing standards of conduct, procurement processes and practices, and prevention of waste, fraud, and mismanagement.
- h. Provide for travel to complete assigned tasks. The contractor shall provide for travel to attend training classes, to provide off-site system support, to participate in analysis at other facilities and in support of other engineering, design and development activities at remote sites.
- i. Prepare and submit for approval an Organizational Conflict of Interest (OCI) Avoidance Plan for Sensitive Information as defined in DRD 1016MA-009.

- j. Prepare and deliver Contractor Employee Clearance Documents in accordance with DRD 1016MA-011.
- k. Prepare and deliver Position Risk Designation for Non-NASA Employee Forms in accordance with DRD 1016MA-012.

The overall MSFC program management responsibilities for the services and functions addressed in this PWS are exercised through the established responsibility and authority of the Contracting Officer and the Contracting Officer's Technical Representative (COTR). Business Management

The contractor shall provide all aspects of business management to this contract. These include finance, personnel, clerical and planning. The contractor shall prepare, implement, and maintain a Work Breakdown Structure and Dictionary in accordance with DRD 1016MA-004, Work Breakdown Structure and Dictionary. The contractor shall provide planning, tracking, accumulating and reporting contract costs and provide other financial support required to meet the budgeting, cost reporting, billing and disclosure requirements of the contract in accordance with NPR 9501.2, NASA Contractor Financial Management Reporting. In performance of this function, the contractor shall provide, implement and maintain a cost accounting system. The system shall be fully integrated and shall provide status of committed, obligated, costed, and disbursed funds. The contractor shall provide projections and tracking of negotiated and accrued costs, and labor hours by NASA Financial Classification System. The contractor shall prepare inputs for program/project budget cycles and processes and prepare and submit Financial Management Reports in accordance with DRD 1016MA-002. The contractor shall provide cost analysis and assessments in support of all activities of the PWS.

2.3 Procurement

The contractor shall provide the equipment, software, upgrades, tools and materials, not otherwise furnished by the government, necessary to complete assigned tasks, in support of HOSC operations and development. In performance of procurement functions, the contractor shall provide all aspects of the procurement processes in compliance with applicable Federal Acquisition Regulations (FAR) and NASA FAR Supplement (NFS). The contractor shall provide all supplies and services not otherwise furnished by the government.

The contractor shall provide status of individual procurements and purchase orders. The contractor shall provide purchase planning in accordance with EO-OWI-002, Purchase Planning.

2.4 Property Management and Coordination

The contractor shall perform property management and administration of all property acquired by, or in possession of, the contractor and subcontractors including Government Furnished Property (GFP) in accordance with MPR 4000.2 Property Management. The contractor shall coordinate and comply with all MSFC property rules and regulations to include audits and inventories. In performance of this function, the contractor shall prepare and maintain a report identifying and listing all property provided by the Government for use by the contractor in the performance of contracted effort, and for which the contractor has been given physical custody. This report shall be prepared and maintained in accordance with DRD 1016LS-001, Government Property Management Plan. The contractor shall provide logistics functions, such as packing and preparation for shipping equipment for repair and relocating equipment to its installation point in compliance with MSFC property regulations. The contractor shall coordinate all property management functions with the cognizant MSFC property management organization.

2.5 IT Security and Export Control

The contractor shall provide Federal Information Processing (FIP) resource protection, personnel security, facility access procedures, policies and protection and the safeguarding of Privacy Act Information and proprietary data. In performance of this function, the contractor shall define and implement the Information Technology Security (ITS) plans, procedures and functions for each HOSC system necessary to provide protection of the information systems commensurate with the criticality level of the systems, applications, and data content. Also in performance of this function, the contractor shall receive, review and apply all applicable security alerts/patches for the systems in the HOSC.

Requirements for vulnerability scans on all existing and new systems connected to the HOSC networks using NASA provided software as determined by the MSFC IT Security Team are included in PWS paragraph 4.4.5, System Administration and Management.

The contractor shall coordinate IT Security Training for all the contractor employees as required by NASA/MSFC.

The contractor shall support disaster preparedness and recovery in accordance with MSFC-PLAN-2934, HOSC Emergency and Disaster Recovery Plan (EDRP). In addition, the contractor shall provide support for security incidents, internal and external audits and investigations, assessments and analysis. The contractor shall maintain an Export Control Program in accordance with applicable government and NASA regulations, and with the policies set forth in MPD 2190.1, MSFC Export Control Program. This Program shall include: identification of candidate exports; classification of candidate exports; identification of candidate license exceptions and exemptions; request of an export license, if required; and maintenance of records of export activities. The status of the contractor's export control activities shall be reported, as required, in routine written and oral reports.

2.6 Risk Management

The contractor shall implement a continuous risk management program for systems developments, operations and business following standard industry practices. Risks and the associated status shall be reported in accordance with EO-PLAN-001, MOL Management Plan. Risk mitigation activities shall be pursued to maintain safety, schedule, cost and technical performance.

2.7 Safety Program

The contractor shall establish and implement an industrial safety, health and environmental program and provide an On-Site Safety and Health Plan in accordance with DRD 1016SA-001. The contractor's industrial safety, health, and environmental program shall incorporate the following Safety and Health Program Core Process Requirement (CPR) elements documented in MPR 8715.1, Marshall Safety, Health, and Environmental (SHE) Program:

- a. Management leadership and employee involvement in the SHE program.
- b. System and worksite analysis.
- c. Hazard prevention and control.
- d. SHE training.
- e. Environmental compliance.

The contractor shall report mishaps and safety statistics to the MSFC Safety and Mission Assurance (S&MA) Office in accordance with DRD 1016SA-002.

2.8 Quality Management

The contractor shall establish, implement, and maintain quality assurance as a means of ensuring that products and services conform to specific requirements. The contractor shall provide quality management in accordance with HOSC-PLAN-661, HOSC Quality Plan.

2.9 Configuration Management

The contractor shall provide Configuration Management (CM) functions in accordance with EO-PLAN-002, MOL Configuration Management Plan. The contractor shall provide CM services to include configuration identification, configuration change control management, configuration status accounting, configuration verification and auditing. This includes maintenance of the existing documents, software libraries and test procedures under HOSC Management Coordination Group (HMCG) CM control as well as the management and performance of configuration audits. The contractor shall define in DRD 1016CM-001, Configuration Management Plan, the process for managing internal contractor documentation compatible with EO-PLAN-002. The contractor will

also provide the Secretary for the HMCG and provide an independent assessment of change traffic to the MOL Director.

2.9.1 Hardware Systems

The contractor shall maintain, and improve as necessary, configuration control of the hardware IT assets supporting development, test or mission operations. The contractor shall assure creation and maintenance of records for all infrastructure components and Configurations Items (CIs) stored in the configuration management database for tracking identification, control, status accounting, and verification. In performance of the hardware systems CM, the contractor shall provide definitions of hardware base configurations, definitions of packages of software releases, ensure physical client and server hardware products, operating system software products and versions, application development software products and versions for version control and definition and provide traceability of version history.

2.9.2 Software Systems

The contractor shall maintain, and improve as necessary, configuration control of the software and systems under development as well as those supporting HOSC mission operations. Contractor software configuration management shall track and control changes in the software including revision control and establishment of baselines through configuration identification, build management, process management and defect tracking. The contractor shall prepare software builds for integrated development testing and for delivery, and provide accessibility control, traceability of build and version history, and definition control of executable operational configurations. The contractor shall ensure that technology transfer and export documentation, rules, and regulations have been completed for each version of software and deliveries as required by NASA and MSFC policies.

2.9.3 Data Management

The contractor shall provide data management services to include document, data, and library management, status accounting, database management and maintenance, change board administrative services and configuration of HOSC websites in accordance with MSFC-PLAN-3046, HOSC Data Management Plan.

2.9.4 Facilities

The contractor shall provide CM for the floor plans and other physical configuration data as described in paragraph 4.6 Facilities using the HOSC Configuration Request (HCR) process, as defined in EO60-OWI-002, HOSC Configuration Request, as the principal CM tool. With Level 3 documentation (such as the MSFC-PLAN-904 Volume 2), the Engineering Change Request (ECR) process as defined in EO-PLAN-002, MOL Configuration Management Plan shall be utilized.

2.10 Documentation Support

The contractor shall maintain, and augment as necessary, the documentation required to support all aspects of the activity under this PWS. Documentation shall be prepared in accordance with MSFC-STD-555, MSFC Engineering Documentation Standard, where applicable. The contractor shall provide plan and procedure development and supporting documentation for delivered and updated systems.

The contractor shall manage and coordinate changes to new or existing Memorandums of Understanding (MOU), Interface Control Documents (ICD) and any other documents that define interfaces between the HOSC and external entities. The contractor shall provide document maintenance and development services for all documents maintained by the HOSC

Considering the Mission Operations Laboratory's (MOL) evolving role in MSFC work package support, the contractor shall assure that MOL documents are in compliance with MOL strategies and with the evolving NASA/MSFC directives, requirements, and guidance.

2.11 Electronic and Information Technology Accessibility

Development and maintenance activities executed under this contract shall comply with the Federal Acquisition Circular 97-27, Electronic and Information Technology (EIT) Accessibility, Section 508 of the Rehabilitation Act of 1973 by implementing the applicable Technical Standards (Subpart B) on a case by case manner, where covered electronic and information technology is capable of having accessibility devices added at some later time, as necessary. Technical Standards 1194.21 through 1194.26 of Section 508 shall apply.

2.12 Training and Certification

The contractor shall provide training of all personnel supporting HOSC mission operations in accordance with HOSC-PLAN-209, Console Training and Certification Plan. These activities shall ensure the technical competence of personnel assigned to

mission support positions and their ability to perform in a mission support environment. The contractor shall provide training in support of engineering and software design and development activities.

2.13 Program Vision and Leadership

Consistent with its commitment to Management by Core Values, the Marshall Space Flight Center is committed to the continual improvement of its processes, practices, and products. The contractor is expected to embrace this commitment, and provide the program vision and leadership required to ensure the proper focus on continual improvement and innovation. This includes innovations in management, resulting in process improvements or enhanced customer service, as well as technical innovations, resulting in increased quality or reliability of the HOSC facilities and systems. All continual improvement initiatives related to the work in this PWS shall be documented in the Ground Systems Department (FD40) Continual Improvement database.

The contractor shall provide technical information concerning any invention, discovery, improvement, or innovation made by the contractor in the performance of work under this contract. Technology Reports shall be prepared in accordance with DRD 1016CD-003. The contractor shall derive and document recommendations for the MOL processes and productivity improvements in areas including but not limited to: project management, risk, quality and systems engineering.

Indefinite Delivery/Indefinite Quantity (IDIQ) Deleted by Modification 83 12/31/08

2.14 Emergency Preparedness and Response

The Contractor's obligation may include resolution of unusual or emergency situations. The Contractor may be required to assist NASA, within the general scope of work, but in currently unidentified ways, in preparation for, or in response to emergencies.

Obligations under this requirement shall only arise when one or more of the criteria at FAR 18.001, enabling NASA to utilize "Emergency Acquisition Flexibilities", are met. If the emergency preparedness and response requirements result in changes to the contract, all contract adjustments will be processed in accordance with the Changes clause of this contract.

3.0 Engineering

The contractor shall develop operations concepts, systems concepts, system-level requirements, and designs for hardware, software, external interfaces, internal interfaces and operations. The contractor shall perform system requirements development, system analysis, systems integration and planning and sustaining engineering. The contractor shall develop system and software designs and provide design review support for all approved HOSC project requirements. These activities shall be performed for upgrades to

existing systems, new requirements for existing systems, mission-specific requirements. These activities shall also be performed for HOSC systems requirements and implementations of new NASA programs. The contractor shall review and assess the future direction of developments to take advantage of technical innovations that would result in increased quality, reliability or customer satisfaction for the HOSC facilities and systems.

The contractor shall prepare metrics data, status reports, management reports, analysis data and other reports and data as required by DRD 1016MA-003, Monthly Progress Reports. The contractor shall support meetings as required.

3.1 Engineering and Integration

Engineering capabilities for the HOSC contract include Systems Engineering, Software Engineering, Hardware Engineering, and Network Engineering, as well as Independent Verification and Validation. Paragraphs 3.1.1 through 3.1.5 describe the specific functions to be performed for each of these engineering elements. The actual performance of these engineering functions for each unique project is included in the project-unique requirements in Paragraphs 3.2 through 3.5.

The contractor shall develop and maintain a set of common engineering processes, procedures, and standards to be applied to HOSC projects.

The contractor shall develop the approach for systems engineering, integration, and development and report it in accordance with DRD 1016SE-001, System Development Plan.

3.1.1 Systems Engineering

The contractor shall perform engineering integration across all HOSC projects, to ensure the integrity and compatibility of the overall HOSC architecture. The contractor shall ensure that new projects and capabilities are effectively integrated into the existing HOSC architecture.

For Systems Engineering, the contractor shall provide the capabilities to perform the following functions:

- a. Ensure that HOSC and related facilities capabilities and configurations fully support mission operations and development objectives. Assess all HOSC related engineering change requests, maintain a current assessment of all open work on HOSC and related systems, provide systems coordination for external facilities utilizing HOSC components and architectures and maintain an official interface with HOSC customer organizations.

- b. At the systems level, develop and maintain system requirements documentation and Interface Control Documents (ICD). Identification and quantification of system goals shall also be developed and maintained. Perform technical analysis and assessments, hardware and software integration and testing, system change management, performance analysis, modeling and testing to ensure compliance with specifications and overall system performance. This includes the assessment of other documents that impact HOSC services and products. Provide alternative system design concepts, verification that the design is properly built and integrated, and a post-implementation assessment of how the system meets or met defined requirements. Participate in the CM process associated with these documents, as required, assessing impact to the HOSC products as part of the review process for these documents.
- c. Provide change package engineering services for all items requiring change board approval. These services include but are not limited to providing ECR assessment and presentation to the HOSC Management Coordination Group (HMCG) Board and providing HOSC Problem Report (HPR) assessment and resolution at the applicable HPR review board. These services shall be in accordance with the ECR process documented in EO-PLAN-002, and the HPR process documented in EO-OWI-006.
- d. Define integrated system architectures and designs to meet all system requirements, and incorporate Government Furnished Property (GFP) components into system architectures and designs, when applicable.
- e. Perform system analyses, trade studies and assessments to determine options and recommendations for selection of the best design for system capabilities, design and development.
- f. Determine system functional element interrelationships and interactions, predict system performance and compare competing design alternatives.
- g. Investigate vendor products and summarize options for make-or-buy.
- h. Perform risk assessments and define risk mitigation processes.
- i. Assess the potential usefulness of technological advances in improving efficiency and/or reducing cost.
- j. Develop and maintain hardware specifications, and develop and conduct engineering acceptance tests as required.
- k. Develop comprehensive system acquisition specifications and documents for end items and products that are to be acquired from manufacturers or vendors.
- l. Conduct system performance studies, recommending appropriate changes to eliminate potential system bottlenecks, resource conflicts and system overloads.

- m. Maintain knowledge on new and existing technologies relevant to the HOSC systems and operations.

3.1.2 Software Engineering

The contractor shall establish, implement, and maintain a Software Quality Assurance Program and provide a plan in accordance with DRD 1016QE-001, Software Quality Assurance Plan.

For Software Engineering, the contractor shall provide the capabilities to perform the following functions:

- a. Define and analyze detailed requirements, conduct software design and product code, conduct testing, validation and verification.
- b. Provide software cost estimation, risk analysis and life cycle analysis for new software application development including resources, effort, cost and schedule.
- c. Provide sustaining engineering for all operational systems. Provide maintenance builds for flight support, for COTS upgrades, for technology upgrades, and for necessary upgrades due to COTS deficiencies. Perform software design and development to support changing ICDs, changing vehicle requirements, problems encountered during flight, and external changes to the requirements.
- d. Perform design and development activities for upgrades to existing systems, mission specific requirements, and new programs to be supported by the facilities. Deliver maintenance software builds and new software builds as specified in the build definition for each project, and be responsible for the installation and integration of developed, procured or provided systems within the facility. Perform build management functions for software deliveries to include determination of build content, effort, and schedules, and maintenance of the build definition. Build content shall be based on ECR assessment at the HOSC Management Coordination Group (HMCG) Board and upon HOSC Problem Report (HPR) assessment at the applicable HPR review board.
- e. Provide administrative support to software integration build and test activities, such as cataloging internal problem reports and code check-in documents and preparing documentation that accompanies a delivered build. Provide resource management of the computer hardware and software used by the software engineering organization for developmental integration and test and for making software builds. Establish architectures for development activities, for developmental integration and test activities and for software build activities. Prepare architectural diagrams of the development, test and integration environments. Prepare software system line of code counts for each software system delivery prior to build content implementation and post build content implementation and delivery.

- f. Incorporate GFP components into all system software designs, integrate and test newly developed software components with existing components, develop software prototypes required for system design or capability analysis, and ensure improvements do not adversely affect ongoing operations.
- g. Provide fault isolation, determination and analysis, and identify proposed changes.
- h. Perform software test and integration to ensure the performance and functionality of the HOSC systems on equivalent or completely operational platforms. Use software test and integration methodologies that define standards and procedures to ensure complete, consistent meeting of functional requirements. Define, develop and execute all test software and data necessary to support system and subsystem testing, and ensure the correction of any discrepancies identified during verification activities. Develop test and integration reports including impact analysis of faults found.
- i. Provide for database management to include production of specific project and mission databases.
- j. Software shall be marketable, usable and intuitive, extensible, robust, reliable, fault tolerant, secure, maintainable, modular, and reusable.

3.1.3 Hardware Engineering

For Hardware Engineering, the contractor shall provide the capabilities to perform the following functions:

- a. Provide hardware engineering for all voice, video, computer, and data communications equipment utilized on this contract.
- b. Conduct system performance studies, recommending appropriate changes to eliminate potential system bottlenecks, resource conflicts, and system overloads. Perform capacity analysis of existing computational, storage and telecommunication systems and supporting resources to ensure that systems performance is compatible with specific system requirements. Provide capacity-planning recommendations based on analysis and changes in requirements and technology.
- c. Isolate problems in systems and effect proper resolution.
- d. Provide risk analysis and management that includes continual identification and assessment of technical, schedule, cost, security and organizational risks involved with the operation of systems.
- e. Perform technology assessments, system upgrade analysis and test, concept prototyping, product evaluations, and human/computer interface evaluations.

3.1.4 Network Engineering

For Network Engineering, the contractor shall provide the capabilities to perform the following functions:

- a. Provide network engineering services for all network equipment utilized on this contract.
- b. Provide network traffic analysis, capacity planning and network performance analysis. Manage and extend as necessary the Simple Network Management Protocol (SNMP) based monitoring and event triggering of alarms of the existing network monitoring system.
- c. Provide routing, wide area network interface and other network support required to transport data (this includes Internet Protocol (IP) telephony and packetized video as well as telemetry and other data) from and to the HOSC. This includes supporting appropriate protocols, firewalls, filters, encryption, Virtual Private Networks (VPNs) and other network-centric techniques to meet the security and interface requirements with external users/facilities.

3.1.5 Independent Verification and Validation (IV&V)

The contractor shall develop a verification program and document it as required by DRD 1016VR-001, Verification Plan for Independent Verification and Validation. The contractor shall provide the capabilities to perform the following functions:

- a. For upgrades to existing mission services and new systems, inspect, test, verify and validate that all system requirements and designs are implemented according to specification.
- b. Perform test and integration of systems to ensure the performance and functionality of the system on an equivalent or completely operational platform.
- c. Develop test plans and procedures that address both hardware and software elements, and internal and external interfaces.
- d. Develop test and integration reports including as-run procedures, test metrics and impact analysis of faults found.
- e. Ensure that Commercial Off-The-Shelf (COTS) software, both applications and operating systems, meet the HOSC-specific requirements without adversely affecting the applications or systems that will be utilized with it.
- f. Ensure that unique databases (e.g., command and/or telemetry) are compatible with the HOSC systems that require their use.

3.2 International Space Station (ISS) Project

The services described under this paragraph are specific to the International Space Station (ISS) project. The contractor shall perform engineering services for ISS payload operations facilities and systems. Included is the MSFC Payload Operations Center (POC). (POC and Payload Operations Integration Center (POIC) are used interchangeably throughout).

The contractor shall provide status, schedule, and metrics data in accordance with DRD 1016MA-003, Monthly Progress Reports. The contractor shall maintain a set of integrated ISS project schedules. The contractor shall provide for the collection, formulation, analysis and processing of ISS project requirements, including book manager functions for project documents.

Unless specifically noted in the respective subsequent paragraphs, the contractor shall perform System Engineering (PWS 3.1.1), Software Engineering (PWS 3.1.2), Hardware Engineering (PWS 3.1.3), Network Engineering (PWS 3.1.4), and IV&V (PWS 3.1.5) for each of the ISS-related HOSC facilities and systems described in the sub-paragraphs of PWS paragraph 3.2.

3.2.1 Payload Control Facilities

The contractor shall perform sustaining engineering for the ISS payload control facilities, consisting of the Payload Operations Center (POC) and the United States Operations Center (USOC) per MSFC-PLAN-904, HOSC Functional Requirements and Implementation Plan, and MSFC-RQMT-1440, Generic Requirements for the Enhanced HOSC System.

3.2.2 Remote Services

The contractor shall provide remote data, voice and video services in support of ISS payload operations, including support for remote ISS Telescience Support Centers (TSC), payload developers, and International Partner control centers. This includes providing and sustaining programmatic interfaces for all remote services including telemetry, commanding, voice, video and user data system access capabilities as defined in SSP 50305, the POIC to Generic User Interface Definition Document (PGUIDD), Volumes 1 & 2. The contractor shall provide these remote services in accordance with MSFC-PLAN-904, HOSC Functional Requirements and Implementation Plan, MSFC-RQMT-1440, Generic Requirements for the Enhanced HOSC System, EO-OWI-007, Remote

Servicing Plan, and MSFC-RQMT-3073, Internet Voice Distribution System (IVoDS) Document.

3.2.2.1 Telescience Resource Kit (TReK)

The contractor shall perform only IV&V (PWS 3.1.5) in support of Telescience Resource Kit (TReK) as defined by MSFC-RQMT-2629, HOSC TReK Requirements Document. The contractor shall verify/validate the TReK capabilities as well as the interfaces between TReK and HOSC services.

3.2.2.2 Internet Voice Distribution System (IVoDS)

The contractor shall perform sustaining engineering for the Internet Voice Distribution System (IVoDS) in accordance with the requirements documented in MSFC-RQMT-3073, IVoDS Requirements Document.

3.2.2.3 KSC Support-Deleted by Mod 83 12/31/08

3.2.3 Payload Data Services System (PDSS)

The services described under this paragraph are specific to the Payload Data Services System (PDSS).

3.2.3.1 PDSS Obsolescence Driven Avionics Redesign (ODAR) Project Upgrades

The contractor shall perform and complete software and hardware design, development, and testing of PDSS applications associated with the ODAR Project. Development shall be in accordance with the requirements documented in MSFC-PLAN-904, HOSC Functional Requirements and Implementation Plan, MSFC-SPEC-2123, PDSS Development Specification, and MSFC-SPEC-2262, PDSS to EHS Interface Requirements Specification.

3.2.3.2 PDSS Sustaining Engineering

The contractor shall perform sustaining engineering for the PDSS, including the upgrades defined in paragraph 3.2.3.1, in accordance with the requirements documented in MSFC-PLAN-904, HOSC Functional Requirements and Implementation Plan, MSFC-SPEC-2123, PDSS Development Specification, and MSFC-SPEC-2262, PDSS to EHS Interface Requirements Specification.

3.2.4 Payload Planning System (PPS)

The services described under this paragraph are specific to the Payload Planning System (PPS).

3.2.4.1 PPS ODAR Project Upgrades

The contractor shall perform and complete software and hardware design, development, and testing of PPS applications associated with the ODAR Project. Development shall be in accordance with the requirements documented in MSFC-SPEC-3229, Payload Planning System (PPS) System Specification.

3.2.4.2 PPS Sustaining Engineering

The contractor shall perform sustaining engineering for the Payload Planning System (PPS), including the upgrades defined in paragraph 3.2.4.1, in accordance with the requirements documented in MSFC-SPEC-3229, Payload Planning System (PPS) System Specification.

3.2.5 Enhanced HOSC System (EHS)

3.2.5.1 EHS Cost Savings Initiative- Deleted by Modification 83 12/31/08

3.2.5.2 EHS Sustaining Engineering-Deleted by Modification 83 12/31/08

The contractor shall perform sustaining engineering for the Enhanced HOSC System (EHS) in accordance with the requirements documented in MSFC-PLAN-904, HOSC Functional Requirements and Implementation Plan, and MSFC-RQMT-1440, Generic Requirements for the Enhanced HOSC System.

3.2.6 ISS Downlink Enhancement Architecture (IDEA)

The services described under this paragraph are specific to the ISS Downlink Enhancement Architecture (IDEA).

3.2.6.1 IDEA ODAR Project Upgrades

The contractor shall perform and complete hardware design, development, and testing of IDEA upgrades associated with the ODAR Project. Development shall be in accordance with the specifications documented in MSFC-SPEC-3341, ISS IDEA Architecture Control Document.

3.2.6.2 IDEA Sustaining Engineering

The contractor shall perform sustaining engineering for the IDEA, including the upgrades defined in paragraph 3.2.6.1, in accordance with the requirements documented in MSFC-SPEC-3341, ISS IDEA Architecture Control Document

3.2.7 ECLSS and MSG/MSRR Support

The contractor shall provide support for the Environmental Control Life Support System (ECLSS), JSC Mission Evaluations Room (MER) and Microgravity Sciences Glovebox/Material Science Research Rack (MSG/MSRR) Engineering Support Centers, in accordance with the requirements documented in MSFC-PLAN-904, HOSC Functional Requirements and Implementation Plan.

The contractor shall perform only System Engineering (PWS 3.1.1), Hardware Engineering (PWS 3.1.3), and Network Engineering (PWS 3.1.4) in support of the ECLSS, MER and MSG/MSRR Engineering Support Center.

3.2.8 JSC Backup Support

The services described under this paragraph are specific to JSC Backup support.

3.2.8.1 ISS Backup Control Center

The contractor shall provide sustaining engineering support for the ISS Backup Control Center, in accordance with the requirements documented in JSC-63742, Backup Control Center HOSC Level B Requirements.

The contractor will coordinate with JSC MCC-H facility engineering and mission control personnel to install a forward Ku-band Front End Processor (FEP) at MSFC. This installation will be incorporated into MSFC's facility and connectivity architecture to ensure all operational capability and security protection requirements are met.

The contractor shall perform only System Engineering (PWS 3.1.1), Hardware Engineering (PWS 3.1.3), and Network Engineering (PWS 3.1.4) in support of the ISS Backup Control Center.

3.2.8.2 JSC Telescience Support Center

The contractor shall provide support for the JSC Telescience Support Center (TSC), in accordance with the requirements documented in MSFC-PLAN-904, HOSC Functional Requirements and Implementation Plan.

The contractor shall perform only System Engineering (PWS 3.1.1), Hardware Engineering (PWS 3.1.3), and Network Engineering (PWS 3.1.4) in support of the JSC TSC.

3.2.8.3 ISS Mission Evaluations Room (MER)

The contractor shall provide support for the ISS MER, in accordance with the requirements documented in MSFC-PLAN-904, HOSC Functional Requirements and Implementation Plan.

The contractor shall perform only System Engineering (PWS 3.1.1), Hardware Engineering (PWS 3.1.3), and Network Engineering (PWS 3.1.4) in support of the ISS MER.

3.3 Shuttle Project

The services described under this paragraph are specific to the Shuttle project.

The contractor shall provide engineering services for the Shuttle Engineering Support Center (SESC), the Data Reduction Center (DRC) and the Meteorological Interactive Data Display System (MIDDS) Room. The contractor shall provide monthly status reports per DRD 1016MA-003.

Unless specifically noted in the respective subsequent paragraphs, the contractor shall perform System Engineering (PWS 3.1.1), Software Engineering (PWS 3.1.2), Hardware Engineering (PWS 3.1.3), Network Engineering (PWS 3.1.4), and IV&V (PWS 3.1.5) for each of the Shuttle-related HOSC facilities and systems described in the sub-paragraphs of PWS paragraph 3.3.

Specifically, the contractor shall provide engineering support to the Shuttle project as specified in PWS paragraphs 3.3.1 through 3.3.4.

3.3.1 Shuttle Engineering Support Center (SESC)

The contractor shall perform sustaining engineering for the SESC facility per MSFC-PLAN-904, HOSC Functional Requirements and Implementation Plan. The contractor shall provide for operational requirements for PC Goal software to support pre-launch, launch and flight operations as defined in MSFC-PLAN-904, HOSC Functional Requirements and Implementation Plan.

The contractor shall perform only System Engineering (PWS 3.1.1), Hardware Engineering (PWS 3.1.3), and Network Engineering (PWS 3.1.4) in support of the SESC.

3.3.2 Data Reduction Center (DRC)

The contractor shall perform sustaining engineering of data reduction services for Shuttle launches and related activities, including data acquisition, data reduction and archival of Space Shuttle launch and test data. Sustaining engineering shall be in accordance with MSFC-SPEC-3423, Data Reduction System Specification.

3.3.3 Meteorological Interactive Data Display System (MIDDS)

The contractor shall perform sustaining engineering of the MIDDS facility per MSFC-PLAN-904, HOSC Functional Requirements and Implementation Plan. The contractor shall ensure system wide compatibility with other MIDDS nodes, Johnson Space Center (JSC) and Cape Canaveral Air Force Station (CCAFS), and the MSFC MIDDS user community.

The contractor shall perform only System Engineering (PWS 3.1.1), Hardware Engineering (PWS 3.1.3), and Network Engineering (PWS 3.1.4) in support of the MIDDS.

3.4 Chandra X-Ray Observatory Project

The services described under this paragraph are specific to the Chandra X-Ray Observatory project.

The contractor shall perform sustaining engineering for the Timing Distribution System (TDS) in the Chandra Operations Control Center (OCC) located at the Chandra X-ray Center (CXC) in Cambridge, MA, in accordance with MSFC-PLAN-904, HOSC Functional Requirements and Implementation Plan.

The contractor shall perform System Engineering (PWS 3.1.1), Software Engineering (PWS 3.1.2), Hardware Engineering (PWS 3.1.3), Network Engineering (PWS 3.1.4), and IV&V (PWS 3.1.5), as required, in support of the Chandra Operations Control Center Timing Distribution System.

3.5 Project-Independent Engineering Tasks

The contractor shall provide support for project-independent engineering tasks, within the scope of the HOSC contract, as required.

The contractor shall perform System Engineering (PWS 3.1.1), Software Engineering (PWS 3.1.2), Hardware Engineering (PWS 3.1.3), Network Engineering (PWS 3.1.4), and IV&V (PWS 3.1.5), as required, in support of these tasks.

3.6 Constellation Program

The services described under this paragraph are specific to the Constellation Program.

3.6.1 Ares Ground Systems

The contractor shall support MOL activities for Ares ground systems requirements definition, reviews, data flows and architecture as applicable to HOSC support for data acquisition, processing, display, remote operations and archiving.

The contractor shall perform Systems Engineering (PWS 3.1.1), Software Engineering (PWS 3.1.2), Hardware Engineering (PWS 3.1.3), Network Engineering (PWS 3.1.4), and IV&V (PWS 3.1.5), as required, in support of these tasks.

3.6.2 Upper Stage Test Control Room

The contractor shall develop operations concepts; systems concepts; system-level requirements; and design, develop, integrate and sustain the hardware, software, interfaces and operations for the Ares Upper Stage test facility located at MAF.

The contractor shall perform Systems Engineering (PWS 3.1.1), Software Engineering (PWS 3.1.2), Hardware Engineering (PWS 3.1.3), Network Engineering (PWS 3.1.4), and IV&V (PWS 3.1.5), as required, in support of these tasks.

3.6.3 Ares Engineering Support Function

The contractor shall develop operations concepts; systems concepts; system-level requirements; and design, develop, integrate and sustain the hardware, software, interfaces and operations for the Ares engineering support function located at MSFC.

The contractor shall perform Systems Engineering (PWS 3.1.1), Software Engineering (PWS 3.1.2), Hardware Engineering (PWS 3.1.3), Network Engineering (PWS 3.1.4), and IV&V (PWS 3.1.5), as required, in support of these tasks.

3.6.4 Ares 1-X Data Reduction

The contractor shall perform sustaining engineering of data reduction services, including data acquisition, data reduction and archival of Ares 1-X launch and test data.

The contractor shall perform Systems Engineering (PWS 3.1.1), Software Engineering (PWS 3.1.2), Hardware Engineering (PWS 3.1.3), Network Engineering (PWS 3.1.4), and IV&V (PWS 3.1.5), as required, in support of these tasks.

3.6.5 Computing Systems Interoperability (CSI)

The contractor shall support MOL activities for the Constellation Program CSI System Integration Group (SIG) requirements definition, reviews, and architecture as applicable to ground systems and vehicle integration activities.

The contractor shall perform Systems Engineering (PWS 3.1.1), Software Engineering (PWS 3.1.2), Hardware Engineering (PWS 3.1.3), Network Engineering (PWS 3.1.4), and IV&V (PWS 3.1.5), as required, in support of these tasks.

3.6.6 Mission Systems Archive and Retrieval

The contractor shall support MOL activities for the Mission Systems Archive and Retrieval System as applicable to data storage and retrieval activities for Orion and Ares at JSC, KSC and MSFC.

The contractor shall perform Systems Engineering (PWS 3.1.1), Software Engineering (PWS 3.1.2), Hardware Engineering (PWS 3.1.3), Network Engineering (PWS 3.1.4), and IV&V (PWS 3.1.5), as required, in support of these tasks.

3.7 CCSDS

The contractor shall provide technical expertise and services to the CCSDS Working Group activity. This work shall include:

- a. Providing systems engineering and technical expertise to help define the data and communications standards for future NASA and interagency programs.
- b. Providing analysis of various options for the data standards that are being developed in the CCSDS working groups.
- c. Producing text and documentation which supports and defines the technical direction that NASA needs to have represented in CCSDS standards documents.
- d. Producing prototype data systems and software as needed to test and verify the concepts of the proposed CCSDS data standards.
- e. Leading and supporting various inter-agency team activities that are needed to develop CCSDS data standards.

4.0 Operations and Maintenance (O&M)

This paragraph defines all operations and maintenance (O&M) required to support the program requirements, systems and missions. Paragraphs 4.1 through 4.6 describe generic O&M functions to be performed for the HOSC, in support of all projects. Paragraphs 4.7 through 4.9 contain project-specific requirements.

The contractor shall develop the Operations and Maintenance approach to be used and report it in accordance with DRD 1016OP-001, Operations/Maintenance Plan. The systems operated and maintained are divided into two categories, infrastructure and project specific. Infrastructure (e.g., voice and video systems) includes those systems that provide services to multiple projects from a single system. Project specific systems are those systems that provide service to a single project.

The contractor shall provide operations and maintenance including upgrades support to the HOSC, in accordance with EO60-OWI-001, Ground Systems Operations. The contractor shall plan, schedule and configure the facility for mission operations activities including individual mission, simulation, and training sessions. The contractor shall execute testing and simulation for real-time activities to ensure operational support readiness.

The contractor shall provide voice, video, command, and data processing services in support of real-time operations. The HOSC services shall be provided based on project mission specific requirements for the duration of the mission.

The contractor shall continuously review and assess the future direction of operations and take advantage of technical innovations and process improvements that would result in increased quality, reliability or customer satisfaction for the HOSC facilities and systems.

4.1 Procedures Maintenance, Development and Testing

The contractor shall develop, maintain, verify and validate procedures necessary for the operation of the HOSC. Procedures relating to console operations, system operations, disaster recovery, operational workarounds and mission-specific operations shall be included. These procedures shall also include recovery and backup processes.

The contractor shall develop, maintain and test procedures necessary for the verification and validation of all HOSC data systems. These procedures shall include upgrades to existing systems and new systems to be integrated into the facility.

4.2 Problem Management and Resolution

The contractor shall provide for problem management and resolution within the HOSC and the remote user community for systems and facilities. The contractor shall maintain the automated problem management system to track and status problems, resolutions and problem trends by system and customer.

4.3 User Support Services

The contractor shall provide liaison services between HOSC operational personnel and the HOSC customers, in support of real-time flight operations.

The contractor shall provide HOSC users, both local and remote, with technical assistance for installation, configuration and operation of all HOSC systems.

The contractor shall provide help desk services to aid local and remote users in the operation of systems and functions. The contractor shall provide this service based on

project unique requirements. The contractor shall maintain a Help Desk to provide HOSC end-user training and support.

4.4 HOSC Mission Services

The contractor shall perform operations and maintenance on all HOSC systems. The contractor shall maintain operational services in accordance with project specific

requirements. The contractor shall provide operations of HOSC systems, with the capability to support operations on a 24-hour per day by 7 days per week basis, in response to project requirements. The contractor shall report the availability of HOSC mission services in accordance with DRD 1016MA-008, Performance Requirements Summary.

4.4.1 Voice Systems

The contractor shall provide voice services to all HOSC programs and projects. The contractor shall operate and maintain the central voice switch or switches, IVoDS gateways, cabling, voice instruments, and other supporting infrastructure, for internal HOSC users and external remote users. The contractor shall provide inter-center access control for operationally critical, private, or otherwise sensitive voice circuits during operations.

4.4.2 Video Systems

The contractor shall provide video services to all HOSC programs and projects. The contractor shall operate and maintain the central matrix switch or switches, video streaming system, cabling, end video instruments, and other supporting infrastructure for internal HOSC users.

4.4.3 Computer Systems

The contractor shall provide services for the utilization of databases, applications software, user computations, command files and other user products necessary for real-time support.

The contractor shall process mission-specific data and maintain access to controlled databases.

The contractor shall provide system monitoring, computer operations and identification of problems associated with HOSC hardware, systems configuration, operating systems, COTS and unique applications software.

The contractor shall provide system operational support services for HOSC resources and equipment to include computers, consoles, networks, databases and other special equipment for local and remote operations.

The contractor shall configure, operate, test and validate local network interfaces to include data network monitoring.

The contractor shall provide real-time maintenance and change-out to maintain critical systems.

The contractor shall identify and isolate problems associated with systems and networks, and perform/support problem resolution.

4.4.4 Data Storage

The contractor shall provide data storage services based on project requirements. This includes the data storage hardware and software as well as user access capabilities. Data storage services include capabilities for receiving, storing, processing, distributing, tracking, converting, recalling and protecting engineering and payload science data.

4.4.5 System Administration and Management

Systems Administration and Management shall encompass the full range of system activities needed to assure continued operations and development.

The contractor shall perform database administration for HOSC computer and network resources, install databases for mission support, configure accounts per mission-specific requirements, and establish HOSC computer system and database backup processes for system recovery purposes.

The contractor shall manage data storage devices, such as disks or tapes, and associated storage libraries.

The contractor shall create backup files for storage and maintenance according to approved policies and procedures.

The contractor shall install, checkout and test all hardware required to fulfill the O&M functions, including development systems. The contractor shall configure hardware for integrated development testing, delivery, and accessibility control of operational configurations.

The contractor shall install upgrades and patches to system software and COTS products.

The contractor shall provide development, test and operations support to investigate and resolve system problems.

The contractor shall perform system software installations and upgrades. The contractor shall track the release of HOSC software in accordance with NPR 2210.1, External Release of NASA Software and report it as described in DRD 1016MA-007.

The contractor shall provide administration functions to support the HOSC systems and networks required for HOSC operational and development activities.

The contractor shall configure system and network audit capabilities to collect and log security audit and network performance data, review network and system security audit logs daily, and provide support for Operating System and COTS installation, configuration and maintenance including backups and failure recoveries of all operational and development systems in accordance with MPD 2800.1, Management of IT Systems and Services at MSFC.

The contractor shall perform vulnerability scans on all existing and new systems connected to the HOSC networks using NASA provided software as determined by the MSFC IT Security Team. The contractor shall keep metrics on the security alerts/patches and prepare and deliver a monthly IT Security Status Report to NASA in accordance with DRD 1016MA-005.

The contractor shall monitor in real-time all systems and functions commensurate to the system's priority in order to assure continued operations. The contractor shall track and report system problems and status to assure closure of open issues.

The contractor shall perform preventive maintenance on all hardware and software systems required to support HOSC operations and development. The contractor shall track system maintenance activities status to assure closure of open issues and report them.

4.5 Ground Systems Requirements Integration

The contractor shall perform operations requirements integration and mission support planning for coordination of HOSC operational support activities, and coordinate operational support planning across all system elements to ensure implementation and maintenance uniformity in accordance with EO-PLAN-001, MOL Management Plan.

The contractor shall provide for the collection, formulation, integration, analysis and processing of system, mission and communication requirements from customers (within the HOSC as well as for remote users). The contractor shall integrate requirements and systems to enhance efficiencies and minimize costs. The contractor shall conduct

operations integration and planning to ensure coordination of all operations disciplines and integrated planning across all system elements, including Government-Furnished Property (GFP). The contractor shall support technical interchange meetings with users. The contractor shall forecast and assess future mission requirements. Reporting shall be in accordance with DRD 1016MA-003, Monthly Progress Report.

The contractor shall provide mission coordination services to ensure that all requirements and support commitments are interpreted and documented with regard to facility and system configurations.

The contractor shall collect and document mission-specific requirements for implementation and integration into HOSC systems and processes.

The contractor shall coordinate access to HOSC systems in accordance with HOSC-PROC-180, HOSC Standard Operating Procedure.

The contractor shall ensure inter-center operational support requirements and implementation program commitments are fulfilled.

The contractor shall evaluate mission support requirements for HOSC communications and data systems against current capabilities, verify operations procedures and management plans, and ensure that all necessary equipment is in operating condition prior to scheduled activity support.

4.6 Facilities

The contractor shall implement and maintain a uniform system for managing the use of assigned building 4663 facilities in accordance with HOSC-HDBK-003, HOSC Facility Document, HOSC-PLAN-009, HOSC Contingency Plan, MSFC-PLAN-2934, HOSC Emergency and Disaster Recovery Plan, and MSFC-PROC-1933, Huntsville Operations Support Center (HOSC) Access Procedures. The contractor shall provide facility planning, assessments, analysis and installation planning and support. The contractor shall plan and coordinate required facility modifications with cognizant HOSC facility personnel. Reporting shall be in accordance with DRD 1016MA-003, Monthly Progress Report.

The contractor shall provide HOSC facility coordination, workload control and systems scheduling services. The contractor shall integrate the product load, facility and equipment configurations, and systems to support mission activities.

The contractor shall maintain HOSC floor plans for all assigned facilities to document the location of furniture, equipment, and electrical services and plan for future facility requirements or expected changes in personnel and equipment locations that includes power, lighting, square footage, layout, heating, ventilation, and air conditioning (HVAC), and fire suppression and detection.

The contractor shall assess and implement HOSC Configuration Request (HCR) changes.

The contractor shall coordinate and status operational room configurations within the HOSC and provide computer-aided design drawings for any reconfiguration change and new facility development.

The contractor shall coordinate and schedule facility support activities including the configuration and reconfiguration of each facility without impacting on-going operations.

The contractor shall provide inter-center coordination and scheduling for external HOSC interfaces, and interfaces to remote sites.

4.7 International Space Station (ISS) Project

The services described under this paragraph are specific to the International Space Station (ISS) project. Paragraph 4.7.1 ISS specific requirements relative to the generic O&M functions described in PWS paragraphs 4.1 through 4.6. Paragraphs 4.7.2 through 4.7.4 define additional O&M tasks that must be performed in support of the ISS project.

4.7.1 Specific Mission Support

The International Space Station Payload Operations Integration Function (POIF) project uses all of the HOSC basic services to operate the Payload Operations Center (POC). The contractor shall maintain these services for the duration of the ISS POIF project. The contractor shall provide complete support for each ISS mission, experiment and ISS increment in accordance with the Increment Definition Requirements Document (DRD), Annex 5. The POIC Work Package Management Plan is defined in EO-WPMP-002 and the POIF Work Package Management Plan is defined in EO-WPMP-001.

Per PWS paragraph 4.3, User Support Services, the contractor shall provide training and Help Desk services related to the use and operation of equipment and systems to users, both local and remote, and operators. The contractor shall provide classroom and hands-on training, demonstrations, documentation, training materials and training records. The contractor shall deliver training in the form of training seminars and local/remote instructor led classes. Training records shall be developed and maintained..

Per PWS paragraph 4.4, HOSC Mission Services, the contractor shall provide voice, video and data processing services in support of ISS real-time payload operations on a continuous 24-hour basis. Day shift technical support to address critical problems encountered after normal working hours shall be provided on a call-in basis with a 2-hour response time. In addition to the 24-hour real-time support, the contractor shall provide 40 hours of weekly support to include ISS test activities, mission preparation, training, development test and simulation activities during the normal day shift.

Per PWS paragraph 4.5, Ground Systems Requirements Integration, the contractor shall maintain the Program Requirements Document (PRD)/Database in accordance with JSC-

27379, Support Requirements System Management Plan to reflect all inter-center requirements for the POC.

4.7.2 POC Database Production

The contractor shall produce POC command and telemetry databases in support of tests and flight. The contractor shall build, validate and deliver an average of 3 command and 3 telemetry databases per ISS Flight (engineering, preflight, and flight). The contractor shall process up to 3 Payload Data Library (PDL) exports for each of the 3 telemetry databases per flight as required. The contractor shall utilize procedures and scripts to ensure complete, consistent database population, and provide "as populated" database documentation.

4.7.3 Certification of Flight Readiness (CoFR)

The contractor shall report mission and systems validation, verification and Certification of Flight Readiness (CoFR) in accordance with EO60-OWI-003, Flight Certification for Ground Systems. The contractor shall certify systems and personnel where required.

KSC Payload Test and Checkout System (PTCS) Operations & Maintenance Support- Deleted by Modification 83 12/31/08

4.7.4 Payload Rack Checkout Units (PRCU) Support

The contractor shall provide payload end-to-end integration and test support by interfacing necessary POIC command and telemetry services to remote Payload Rack Checkout Units (PRCU). The contractor shall provide systems and operations support to all PRCU locations when scheduled.

Test activities shall not overlap between different locations' PRCU. Test services shall be available on an 8 hour per day by 5 days-per-week basis. This support will be provided during HOSC day shift.

4.7.5 ISS Backup Control Center

The contractor shall provide operations support needed to establish mission essential capabilities prior to the threat of possible hurricane impact to operations of the MCC-H.

In addition, the contractor shall provide operations support on an 'on call' basis to JSC engineering and flight operations team subsequent to establishing a BCC operational capability. Ongoing support will be required to support monthly test and exercise/simulation of the BCC to maintain readiness to assume operational control of the ISS immediately upon activation.

JSC will be responsible for the maintenance, operation, and life cycle replacement of the support equipment required by the BCC at MSFC. A unique requirement of the MSFC BCC is installation of an encryption device to provide command security. This equipment will be located in Building 4663 with both hardware and encryption key administration provided by the current contractor (ODIN, Unites, etc.).

Guidelines and Requirements

For ISS, MCC-H will transition mission control responsibility to the BCC at least 36 hours prior to the forecast onset of 50-knot (58 mph) winds at JSC (Level 2 threat). For Category 1 and 2 hurricanes, the MCC equipment will remain powered up and useable, but not monitored (system functionality is not guaranteed). A facility ride-out team will be available for fire watch only. An emergency power down and total evacuation will be executed for Category 3, 4, or 5 storms.

4.8 Shuttle Project

The services described under this paragraph are specific to the Shuttle project. Paragraph 4.8.1 contains Shuttle specific requirements relative to the generic O&M functions described in PWS paragraphs 4.1 through 4.6. Paragraph 4.8.2 defines additional O&M tasks that the must be performed in support of the Shuttle project.

4.8.1 Specific Mission Support

Per PWS paragraph 4.4, HOSC Mission Services, the contractor shall provide voice, video and data processing services in support of Shuttle test, simulation, pre-launch, launch and flight operations. The contractor shall provide on-site support during Level A Shuttle activities (Systems, Network, and MIDDS), and for special activities. The contractor shall coordinate system activities with other MIDDS nodes, Johnson Space Center (JSC) and Cape Canaveral Air Force Station (CCAFS), and the MSFC MIDDS user community.

The contractor shall provide on-call support for non-Level A Shuttle activities.

Per PWS paragraph 4.4, HOSC Mission Services, the contractor shall provide for inter-center communication coordination for test, simulation, pre-launch, launch and flight operations. NOTE: this procedure is inactive.

Per PWS paragraph 4.4.4, Data Storage, the contractor shall create a best-source merge of telemetry data from real-time, playback and dump sources. The contractor shall archive raw and processed telemetry data and create data reduction products as required. The

contractor shall provide support including loading of data, verification of historical data, checkout, maintenance and processing of data.

4.8.2 Certification of Flight Readiness (CoFR)

The contractor shall report mission and systems validation, verification and Certification of Flight Readiness (CoFR) in accordance with EO60-OWI-003, Flight Certification for Ground Systems. The contractor shall certify systems and personnel where required.

Chandra X-Ray Observatory- Deleted by Modification 83 12/31/08
Specific Mission Support- Deleted by Modification 83 12/31/08

4.9 Constellation Program

The services described under this paragraph are specific to the Constellation Program.

4.9.1 Ares Engineering Support Function

Per PWS paragraph 4.4.3, Computer Systems, the contractor shall provide services in support of the Ares operational portal.

Per PWS paragraph 4.4.4, Data Storage, the contractor shall provide services for the Ares operational portal.

Per PWS paragraph 4.4.5, System Administration and Management, the contractor shall provide services for the Ares operational portal.

4.9.2 Ares 1-X Data Reduction

Per PWS paragraph 4.4, HOSC Mission Services, the contractor shall provide voice, video and data processing services in support of Ares 1-X test, simulation, pre-launch, launch and flight operations. The contractor shall provide on-site support during Level A Ares 1-X activities (Systems, Network, and MIDDS), and for special activities. The contractor shall coordinate system activities with other MIDDS nodes, Johnson Space Center (JSC) and Cape Canaveral Air Force Station (CCAFS), and the MSFC MIDDS user community.

Per PWS paragraph 4.4, HOSC Mission Services, the contractor shall provide for inter-center communication coordination for test, simulation, pre-launch, launch and flight operations.

Per PWS paragraph 4.4.4, Data Storage, the contractor shall create a best-source merge of telemetry data from real-time, playback and dump sources. The contractor shall archive raw and processed telemetry data and create data reduction products as required. The contractor shall provide support including loading of data, verification of historical data, checkout, maintenance and processing of data.

4.9.3 CLV Logistics Database

Per PWS paragraph 4.4.3, Computer Systems, the contractor shall provide services in support of the CLV Logistics and ground support databases.

Per PWS paragraph 4.4.4, Data Storage, the contractor shall archive CLV Logistics and ground support databases and create products as required.

Per PWS paragraph 4.4.5, System Administration and Management, the contractor shall provide services for the CLV Logistics and ground support databases.

These services shall be available on an 8 hour per day by 5 days-per-week basis. This support will be provided during HOSC day shift.

DATA PROCUREMENT DOC.
NO. ISSUE
1016 Revision E

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CONTRACT/RFP

EXHIBIT NUMBER

J-2

ATTACHMENT NUMBER

Huntsville Operations Support Center (HOSC)

PROJECT/SYSTEM

DATA PROCUREMENT DOCUMENT

COLSA CORPORATION

CONTRACTOR

January 1, 2009

DATE

National Aeronautics and
Space Administration

National Aeronautics and Space Administration					DATA PROCUREMENT DOC.		
DOCUMENT CHANGE LOG					NO.	ISSUE	
					1016	Revision E	
INCORPORATED REVISIONS OUTSTANDING REVISIONS				AS OF:	SUPERSEDING:	PAGE:	
				01-01-09	04-24-08	1 of 2	
AUTHORITY	PORTION AFFECTED - PAGE NO./NO.				REMARKS		
(DPD Revision)	INTRO	SGR	DRL	DRD			
Contract Mod. 07				1016MA-003	Item 6: Changed title to: "Monthly Progress Report" Item 15.1 Inserted "Monthly" prior to "Progress Report" Item 15.3(a): Inserted "to WBS Level III" to end of sentence Item 15.4: Inserted "Monthly" prior to "Progress Reports"		
				1016MA-006	DELETED		
				1016MA-007	Item 6: Changed title to: "HOSC Software Release Quarterly Report" Item 7: Changed DESCRIPTION/USE to read: "To provide identification and tracking measures or metrics for HOSC Software releases. The release information, as established by NPD 2210.1, will be reported quarterly to the Software Release Authority at MSFC to enable compliance with reporting to the Director, Commercial Technology Division at NASA Headquarters." Item 12: Changed "Monthly" to "Quarterly" Item 15.3: Changed Contents to read: "For each software product (e.g. EHS, EPC, IVoDS), provide a list of approved users, including user organization/location/etc., applicable payload/experiment, and software version"		
Contract Mod.11			X		Additional changes incorporated in Mod. 07: Changed Title of MA-003 to "Monthly Progress Report", lined through MA-006 to indicate deletion, and changed Title of MA-007 to "HOSC Software Release Quarterly Report" The following change noted in the DCL for Mod. 07 was not incorporated but is for Rev. A:		
				1016MA-007	Item 7: Changed DESCRIPTION/USE to read: "To provide identification and tracking measures or metrics for HOSC Software releases. The release information, as established by NPD 2210.1, will be reported quarterly to the Software Release Authority at MSFC to enable compliance with reporting to the Director, Commercial Technology Division at NASA Headquarters."		
			X		DRL and Item 9: Changed QS to QD throughout entire DPD		
					1016MA-004	Item 3: Changed Data Type from 3 to 2	
					1016CM-001	Item 3: Changed Data Type from 2 to 1	
				1016SA-001	Item 3: Changed Data Type from 2 to 1		

DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.:** 1016 **ISSUE:** Revision E
2. **DRD NO.:** 1016SA-002
3. **DATA TYPE:** 3
4. **DATE REVISED:** 01-01-09
5. **PAGE:** 1/3
6. **TITLE:** Mishap and Safety Statistics Reports
7. **DESCRIPTION/USE:** To provide reporting of metrics, mishaps, close calls, and serious non-occupational injuries or illnesses.
8. **OPR:** QD12 9. **DM:** EO02
10. **DISTRIBUTION:** Per Contracting Officer's letter
11. **INITIAL SUBMISSION:**
 - a. **Safety Statistics** for the previous month shall be submitted by the 10th of each month after contract award.
 1. Safety statistics are reported using MSFC Form 4371, or an electronic notification system equivalent, or direct input to NASA Incident Reporting Information System (IRIS) database by the contractor designated IRIS representative.
 2. Safety statistics reports shall include: contract number, subcontractors, NAISC codes, number of employees, number of supervisors, hours worked, and number of injuries including days away from work and/or first-aid cases, and number of employees up-to-date with required MSFC Safety, Health, and Environmental (SHE) Training. (SHE training is only applicable to onsite contracts.)
 3. Access to IRIS database can be obtained from the MSFC S&MA IRIS administrator located in the MSFC Industrial Safety Branch (ISB) after contract award.
 - b. **Initial reporting for ALL mishaps (Type A, B, C and D mishaps and close calls)** for ALL contractors working onsite shall be reported to MSFC Industrial Safety Branch (ISB) as soon as possible, but **no later than 1 hour** of occurrence or awareness by:
 1. Direct input through the "SHE Report" located on the Safety, Health & Environmental (SHE) webpage located on "Inside Marshall." On the SHE webpage select the "Mishaps, Questions and Concerns" pull-down menu, then select "Report Mishaps/Close Calls/ Concerns." (At MSFC this is the preferred method of reporting), or
 2. Calling the Safety Hotline (256) 544-0046 or 544-HELP (4357), option "safety," or
 3. Direct input into the NASA Incident Reporting Information System (IRIS) by the contractor designated IRIS representative.
 - c. **Initial reporting for Type A and B mishaps and high visibility close calls** for contractors working offsite shall be reported to MSFC Industrial Safety Branch (ISB) as soon as possible, but **no later than 1 hour** of occurrence or awareness by either of the following methods in section b.2 or b.3.
 1. If a contractor employee has any type mishap while visiting a MSFC controlled site, they shall report immediately to their site sponsor in addition to other reporting requirements.
 - d. **Initial reporting for Type C and D and low visibility close calls** for contractors working offsite shall be reported via the Safety Statistics Report submitted monthly. Follow-up information for these type mishaps and close calls can be requested by MSFC ISB.
 - e. **Initial reports for all mishaps and close calls** shall provide as much information as possible, but at a minimum include the following: location and time of incident, number of fatalities, number hospitalized, type of damage, estimated cost, brief description, and contact person's name and phone number in accordance with MWI 8621.1 and NPR 8621.1.
 - f. **Reporting of a non-work-related fatality or serious injury or illnesses that occur to contractor employee while working onsite shall be within 24 hours** of occurrence or awareness of injury by:
 1. Notifying the Contracting Officer and MSFC ISB. (For contractors working offsite reporting of a non-work-related injury or illness notification is at the discretion of the family.)
 - g. **Follow-up reporting for ALL contractors:**
 1. **Type A or B mishaps, or high visibility mishaps or close calls:** Follow-up report **within 24 hours** through IRIS entry by the contractor designated IRIS representative, or electronic submittal to MSFC ISB.

DRD Continuation Sheet

TITLE: Mishap and Safety Statistics Reports

DRD NO.: 1016SA-002

DATA TYPE: 3

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11. **INITIAL SUBMISSION (CONTINUED):**

2. **Type C or D mishaps, or non-high visibility close calls:** Follow-up report or update within 6 days through IRIS entry by the contractor designated IRIS representative, or electronic submittal to MSFC ISB.
3. **Type A, B, and Close Calls with high visibility Type A or B potential Investigation Mishap Board Report:** submitted after completion of investigation. Corrective Action Plan submitted upon Endorsing Official approval.
4. **All Mishaps:** Follow-up Corrective Action Plan/Status 30 days after first mishap.
- h. **Safety Concerns, Hazards, and non-reportable mishaps** for contractors working onsite shall be reported per MPR 8715.1 and MWI 8715.13.

12. **SUBMISSION FREQUENCY:** Safety Statistics (MSFC Form 4371, IRIS entry, or an equivalent electronic submittal) - By the 10th of each month to MSFC ISB. All Mishaps: Monthly Follow-up Corrective Action Plan/Status until corrective actions implemented and closure received by updating record in IRIS data base (preferred) or electronic submittal to MSFC ISB.

13. **REMARKS:**

14. **INTERRELATIONSHIP:** DRD 1016SA-001, *Safety, Health, and Environmental (SHE) Plan*. PWS paragraph 2.7

15. **DATA PREPARATION INFORMATION:**

- 15.1 **SCOPE:** The Mishap and Safety Statistics Reports document all mishaps and close calls as required in NPR 8621.1.

15.2 **APPLICABLE DOCUMENTS:**

- | | |
|-------------|---|
| NPR 8621.1 | <i>NASA Procedural Requirements for Mishap and Close Call Reporting, Investigating, and Recordkeeping</i> |
| MPR 8715.1 | <i>MSFC Safety, Health, and Environmental (SHE) Program</i> |
| MWI 8621.1 | <i>Close Call and Mishap Reporting and Investigation Program</i> |
| MWI 8715.13 | <i>Safety Concerns Reporting System (SCRS)</i> |

- 15.3 **CONTENTS:** The Mishap and Safety Statistics Reports shall contain the information required by NPR 8621.1 and MWI 8621.1.

- 15.4 **FORMAT:** The following formats or electronic equivalent shall be submitted:

- a. MSFC Form 4371, "MSFC Contractor Accident and Safety Statistics."
- b. Mishap Board Report using the format provided in NPR 8621.1.
- c. Additional Information Submittal per MWI 8621.1.

- 15.5 **MAINTENANCE:** None required

15.6 **DEFINITIONS:**

NASA Mishap. An unplanned event that results in at least one of the following:

- a. Injury to non-NASA personnel, caused by NASA operations.
- b. Damage to public or private property (including foreign property), caused by NASA operations or NASA-funded development or research projects.
- c. Occupational injury or occupational illness to NASA personnel.
- d. NASA mission failure before the scheduled completion of the planned primary mission.

DRD Continuation Sheet

TITLE: Mishap and Safety Statistics Reports

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

- e. Destruction of, or damage to, NASA property except for a malfunction or failure of component parts that are normally subject to fair wear and tear and have a fixed useful life that is less than the fixed useful life of the complete system or unit of equipment, provided that the following are true: 1) there was adequate preventative maintenance; and 2) the malfunction or failure was the only damage and the sole action is to replace or repair that component.

Close Call. An event in which there is no injury or only minor injury requiring first aid and/or no equipment/property damage or minor equipment/property damage (less than \$1000), but which possesses a potential to cause a mishap.

High Visibility (Mishaps or Close Calls). Those particular mishaps or close calls, regardless of the amount of property damage or personnel injury, that the Administrator, Chief/OSMA, CD, AA/OIA, or the Center SMA director judges to possess a high degree of programmatic impact or public, media, or political interest including, but not limited to, mishaps and close calls that impact flight hardware, flight software, or completion of critical mission milestones.

Type A Mishap. A mishap resulting in one or more of the following: (1) an occupational injury or illness resulting in a fatality, a permanent total disability, or the hospitalization for inpatient care of 3 or more people within 30 workdays of the mishap; (2) a total direct cost of mission failure and property damage of \$1 million or more; (3) a crewed aircraft hull loss; (4) an occurrence of an unexpected aircraft departure from controlled flight (except high performance jet/test aircraft such as F-15, F-16, F/A-18, T-38, OV-10, and T-34, when engaged in flight test activities).

Type B Mishap. A mishap that caused an occupational injury or illness that resulted in a permanent partial disability, the hospitalization for inpatient care of 1-2 people within 30 workdays of the mishap, or a total direct cost of mission failure and property damage of at least \$250,000 but less than \$1,000,000.

Type C Mishap. A mishap resulting in a nonfatal occupational injury or illness that caused any days away from work, restricted duty, or transfer to another job beyond the day or shift on which it occurred, or a total direct cost of mission failure and property damage of at least \$25,000 but less than \$250,000.

Type D Mishap. A mishap that caused any nonfatal OSHA recordable occupational injury and/or illness that does not meet the definition of a Type C mishap, or a total direct cost of mission failure and property damage of at least \$1,000 but less than \$25,000.

Offsite. A contractor that is not located on a NASA Center or NASA-owned facility.

Onsite. A contractor that is located on a NASA Center or NASA-owned facility.

DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.:** 1016 **ISSUE:** Revision E
2. **DRD NO.:** **1016SE-001**
3. **DATA TYPE:** 2
4. **DATE REVISED:** 01-01-09
5. **PAGE:** 1/2
6. **TITLE:** System Development Plan
7. **DESCRIPTION/USE:** To describe systems engineering, integration, and development activities for the project.
8. **OPR:** EO02 9. **DM:** EO02
10. **DISTRIBUTION:** Per Contracting Officer's letter
11. **INITIAL SUBMISSION:** 60 days after Authority to Proceed (ATP)
12. **SUBMISSION FREQUENCY:** Update as required
13. **REMARKS:**
14. **INTERRELATIONSHIP:** PWS paragraph 3.1
15. **DATA PREPARATION INFORMATION:**
- 15.1 **SCOPE:** The System Development Plan describes the concepts and methodology for system engineering, hardware design and development, and software design and development.
- 15.2 **APPLICABLE DOCUMENTS:** None
- 15.3 **CONTENTS:** The System Development Plan shall include the following:
 - a. **General requirements:**
 1. The System Development Plan shall identify the concepts and methods to be employed for system engineering, hardware design and development, and software design and development.
 2. The plan shall serve as the implementation guide for HOSC facility development activities.
 - b. **Systems engineering:**
 1. The plan shall describe the contractor's system engineering activities for HOSC facilities and the methods to be utilized to accomplish these activities.
 2. The plan shall describe planning, requirements definition, requirements allocation, requirements/system analysis, market surveys, test support equipment definition, hardware/software integration (HSI), system integration, change evaluation, requirement/design review plans, GFP incorporation, design documentation, and design/development monitoring and coordination approaches.
 3. The plan shall describe the organization for managing system engineering activities including resource allocation, management methods, and activity coordination.
 - c. **Hardware engineering:**
 1. The plan shall describe the contractor's hardware engineering activities for HOSC facilities and the methods to be utilized to accomplish these activities.
 2. The plan shall describe hardware design/development methods, standards, and policies. The plan shall address development environment; drawing standards; prototyping policies; system sizing/capacity definition; product evaluations; GFP, COTS, existing component incorporation; design documentation; installation and delivery policies; hardware integration; developmental configuration management; and problem tracking.
 3. The plan shall describe the organization for managing hardware engineering activities including resource allocation, management methods, and activity coordination.

DRD Continuation Sheet**TITLE:** System Development Plan**DRD NO.:** 1016SE-001**DATA TYPE:** 2**PAGE:** 2/2**15. DATA PREPARATION INFORMATION (CONTINUED):****d. Software Engineering**

1. The plan shall describe the contractor's software engineering activities for HOSC facilities and the methods to be utilized to accomplish these activities.
2. The plan shall describe software design/development methods, standards, and policies. The plan shall address software lifecycle; development environment; coding standards; test and evaluation practices; prototyping policies; installation and delivery policies; product evaluation; GFP, COTS, existing software incorporation; design documentation; developmental configuration management; and problem tracking.
3. The plan shall describe the organization for managing software engineering activities including resource allocation, management methods, and activity coordination.

15.4 FORMAT: Contractor format is acceptable.**15.5 MAINTENANCE:** Changes shall be incorporated by change page or complete reissue.

DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO:** 1016 **ISSUE:** Revision E 2. **DRD NO.:** **1016VR-001**
3. **DATA TYPE:** 2 4. **DATE REVISED:** 01-01-09
5. **PAGE:** 1/1
6. **TITLE:** Verification Plan
7. **DESCRIPTION/USE:** To document the verification program to ensure HOSC facility systems and configurations are properly implemented and prepared.
8. **OPR:** EO02 9. **DM:** EO02
10. **DISTRIBUTION:** Per Contracting Officer's letter
11. **INITIAL SUBMISSION:** 60 days after Authority to Proceed (ATP)
12. **SUBMISSION FREQUENCY:** Update as required
13. **REMARKS:**
14. **INTERRELATIONSHIP:** PWS paragraph 3.1.5
15. **DATA PREPARATION INFORMATION:**
- 15.1 **SCOPE:** The Verification Plan describes the verification program concepts, methods, and organization for the verification of HOSC facility systems and configurations in support of new systems, system upgrades, and mission activities to ensure operational readiness.
- 15.2 **APPLICABLE DOCUMENTS:** None
- 15.3 **CONTENTS:** The Verification Plan shall contain the following:
 - a. Description of the verification concept and methodology.
 - b. Overview of the verification program for each HOSC facility.
 - c. Description of the verification methods to be utilized and level of testing to be performed for new systems, system upgrades, and mission activities.
 - d. Management approach, organizational structure, and organizational responsibilities for the verification program.
 - e. Relationship of verification program to system engineering, development, and mission activities.
 - f. Position of verification activities within development and mission activity timelines.
 - g. Policies on use of verification equipment and environments and location of verification tests.
 - h. Policies on verification of developed items, COTS items, GFP items, and temporary items.
- 15.4 **FORMAT:** Contractor format is acceptable.
- 15.5 **MAINTENANCE:** Changes shall be incorporated by change page or complete reissue.

ATTACHMENT J-3**APPLICABLE REGULATIONS AND PROCEDURES**

The following regulation and procedures, and the latest revision thereto, will be applicable to the contractor in performing the HOSC contract. This listing is not intended to relieve the contractor of its responsibility for identification of applicable regulations and procedures and compliance therewith, when performing work on-site at MSFC.

Specific documents will be hosted on a Web site at the following URL:

<https://upn.ums.msfc.nasa.gov/sites/ice/docrepository>. Access to the online documentation can be obtained by filling out the account request form provided on the Web site.

FEDERAL ACQUISITION REGULATIONS (FAR)

FAR	Federal Acquisition Regulation
FAR Circular 97-27	Electronic and Information Technology (EIT) Accessibility, Section 508 of the Rehabilitation Act of 1973

NASA FAR SUPPLEMENT (NFS)

NFS	NASA FAR Supplement
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NASA PROCEDURES AND GUIDELINES

NPG 2210.1	External Release of NASA Software
NPG 2810.1	Security of Information Technology
NPG 4200.1E	NASA Equipment Management Manual
NPG 5100.4B	Federal Acquisition Regulation Supplement, (NASA/FAR Supplement) Part 18-45 and latest revisions thereto
NPG 8621.1	NASA Procedures and Guidelines for Mishap Reporting, Investigating, and Recordkeeping
NPG 8715.3	NASA Safety Manual
NPG 9501.2	NASA Contractor Financial Management Reporting

NASA STANDARDS

NASA-STD-8719.11	Safety Standard for Fire Protection
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MARSHALL POLICY DIRECTIVES

MPD 1040.3	MSFC Emergency Plan
MPD 1280.1	MSFC Management Manual
MPD 1840.1	MSFC Environmental Health Program
MPD 1840.2	MSFC Hearing Conservation Program
MPD 1840.3	MSFC Respiratory Protection Program
MPD 2190.1	MSFC Export Control Program
MPD 2210.1	Documentation Input and Output of the MSFC Documentation Repository
MPD 2800.1	Management of IT Systems at MSFC
MPD 2810.1	IT Security
MPD 8900.1	Medical Operations Responsibilities for Human Space Flight Programs

MARSHALL PROCEDURES AND GUIDELINES

MPG 1810.1	MSFC Occupational Medicine
MPG 1840.2	MSFC Hazard Communication Program
MPG 1840.3	MSFC Hazardous Chemicals in Laboratories Protection Program
MPG 2190.1	MSFC Export Control Program
MPG 4000.2	MSFC Property Management
MPG 8500.1	MSFC Environmental Management Program
MPG 8715.1	Marshall Safety, Health and Environmental (SHE) Program

MARSHALL STANDARDS

MSFC-STD-555	MSFC Engineering Documentation Standard
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MARSHALL WORK INSTRUCTIONS

MWI 3410.1	Personnel Certification Program
MWI 4200.1A	Equipment Control
MWI 5116.1	Evaluation of Contractor Performance Under Contracts with Award Fee Provisions
MWI 8621.1	Close Call and Mishap Reporting and Investigation Program
MWI 8715.9	Occupational Safety Guidelines for MSFC Contractors

STANDARDS

29 CFR 1910	Department of Labor; Occupational Safety and Health Administration Standards for General Industry
40 CFR	Protection of the Environment
IEEE Std 730-1998	IEEE Standard for Software Quality Assurance Plans
NFPA Standards	National Fire Codes

**MISSION OPERATIONS LABORATORY ORGANIZATIONAL ISSUANCES
(OIs)**

EO60-OWI-001 Ground System Operations
 EO60-OWI-002 HOSC Configuration Request
 EO60-OWI-003 Flight Certification for Ground Systems
 EO-OWI-002 Purchase Planning
 EO-OWI-003 HOSC Task Directives
 EO-OWI-004 HOSC Contract Performance Evaluation
 EO-OWI-006 HOSC Problem report
 EO-OWI-007 Remote Servicing Plan
 EO-PLAN-001 Mission Operations Laboratory Management Plan
 EO-PLAN-002 Mission Operations Laboratory Configuration Management Plan
 EO-WPMP-001 Payload Operations Integration Function (POIF) Work Package Management Plan
 EO-WPMP-002 Payload Operations Integration Center (POIC) Work Package Management Plan

HOSC AND RELATED DOCUMENTATION

Please see attached document for these names

HOSC-PLAN-209	IST Training Plan
HOSC-PLAN-623	HOSC Project Plan
HOSC-PLAN-635	HOSC Project Risk Management Plan
HOSC-PLAN-661	HOSC Quality Plan
HOSC-PROC-1933	HOSC Access Procedures
JSC-27379	Support Requirements System Management Plan
MSFC-PLAN-904	HOSC Functional Requirements and Implementation Plan, Volumes 1 and 2
MSFC-PLAN-2929	HOSC Configuration Management Plan
MSFC-PLAN-3046	HOSC Data Management Plan
MSFC-PROC-1613	Joint Operations Procedures for the Kennedy Marshall Transmission Systems
MSFC-RQMT-1440	Generic Requirements for the Enhanced HOSC System
MSFC-RQMT-2467	HOSC Information Technology Security Requirements
MSFC-RQMT-3073	Internet Voice Distribution System IVoDS Document
MSFC-SPEC-2123	PDSS Development Specification
MSFC-SPEC-2262	Payload Data Services System (PDSS) to Enhanced HOSC System (EHS) Interface Requirements Specification
MSFC-SPEC-3229	Payload Planning System (PPS) System Specification
SSP 50305 V1	POIC to Generic User Interface Definition Document (Volumes 1)

HOSC AND RELATED DOCUMENTATION

HOSC-PLAN-009	HOSC Contingency Plan
HOSC-PROC-180	HOSC Standard Operating Procedures
MSFC-PLAN-2934	HOSC Emergency & Disaster Recovery Plan (EDRP)
MSFC-PLAN-3340	IDEA Development Plan

MM401A A070

Equipment	Description	AcquistnValue	Mfr Cod	Model number
1653976	POWEREDGE	4,659.00	DELLC	2650
1654088	PROCESSING UNIT	84,118.00	TELSY	TSI-CPI
1654089	PROCESSING UNIT	84,118.00	TELSY	TSI-CPI
3050478	SERVER, RACKMOUNT	5,629.00	SUPMI	CSE-94
3050479	SERVER, RACKMOUNT	5,629.00	SUPMI	CSE-94
3050480	SERVER, RACKMOUNT	5,629.00	SUPMI	CSE-94
1270755	ADAPTER, TELEPHONE	8,097.00	33875	8710460004
2193383	PRINTER, THERMAL	775.00	51186	EZ1300
2194149	READER, OPTICAL	2,105.00	1WHT1	AR-400-US
2194150	READER, OPTICAL	2,105.00	1WHT1	AR-400-US
2510392	SCANNER	1,535.00	30347	NONE
2510393	SCANNER	1,535.00	30347	NONE
2510394	SCANNER	2,105.00	30347	MC906R
2510395	SERVER, RACKMOUNT	6,650.00	1GE11	EMS
65427	TRANSPORT, MAGNETIC TAF	94,891.00	19139	3700J

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2196124	COMPUTER, MICRO, LAPTOF	1,980.00	1GE11	PP04X	
2196125	COMPUTER, MICRO, LAPTOF	1,980.00	1GE11	PP04X	
2196126	COMPUTER, MICRO, LAPTOF	1,980.00	1GE11	PP04X	|
2196128	COMPUTER, MICRO, LAPTOF	1,980.00	1GE11	PP04X	|
2196129	COMPUTER, MICRO, LAPTOF	1,980.00	1GE11	PP04X	|
2196130	COMPUTER, MICRO, LAPTOF	1,980.00	1GE11	PP04X	|
2196131	COMPUTER, MICRO, LAPTOF	1,980.00	1GE11	PP04X	|
2196132	COMPUTER, MICRO, LAPTOF	1,980.00	1GE11	PP04X	|
2197066	DISPLAY UNIT	560.00	0BDN7	LC-20D42U	
2197067	DISPLAY UNIT	560.00	0BDN7	LC-20D42U	
2197068	DISPLAY UNIT	560.00	0BDN7	LC-20D42U	
2197069	DISPLAY UNIT	560.00	0BDN7	LC-20D42U	
2197070	DISPLAY UNIT	560.00	0BDN7	LC-20D42U	
2197071	DISPLAY UNIT	560.00	0BDN7	LC-20D42U	
2197072	DISPLAY UNIT	560.00	0BDN7	LC-20D42U	
2197073	DISPLAY UNIT	560.00	0BDN7	LC-20D42U	
2197074	DISPLAY UNIT	560.00	0BDN7	LC-20D42U	
2197075	DISPLAY UNIT	560.00	0BDN7	LC-20D42U	
2197076	DISPLAY UNIT	560.00	0BDN7	LC-20D42U	

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2197095	DISPLAY UNIT	560.00	0BDN7	LC-20D42U
2197096	DISPLAY UNIT	560.00	0BDN7	LC-20D42U
2197097	DISPLAY UNIT	560.00	0BDN7	LC-20D42U
2197098	DISPLAY UNIT	560.00	0BDN7	LC-20D42U
2197099	DISPLAY UNIT	560.00	0BDN7	LC-20D42U
2197104	DISPLAY UNIT	560.00	0BDN7	LC-20D42U
2545843	SERVER, RACKMOUNT	20,556.00	1Z004	0863
2545864	SERVER, RACKMOUNT	7,242.00	1EJH5	NONE I
2197271	SERVER, RACKMOUNT	6,111.00	1GE11	POWER I
2197272	SERVER, RACKMOUNT	6,111.00	1GE11	POWER I
2197273	SERVER, RACKMOUNT	6,111.00	1GE11	POWER I
2196127	COMPUTER, MICRO, LAPTOP	1,980.00	1GE11	PP04X I
8326	RECEIVER	10,000.00	50666	MB302
9765	TRANSPORT, MAGNETIC TAPE	1,248.00	7X430	411TD
10301	TERMINAL, DATA PROCESSING	525.00	53073	4000
10356	CONTROLLER, TELECONFERENCE	9,273.00	0219B	81906513718
10441	MONITOR, WAVEFORM	6,102.00	80009	1755A
63917	DISPLAY UNIT	1,984.00	15476	VT340A2
64217	PRINTER, ADP	2,637.00	15476	LN035AA

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733008	TERMINAL, DATA PROCESSII	2,895.00	15476	VT241AA
733133	TERMINAL, DATA PROCESSII	2,380.00	15476	VT241AA
733135	TERMINAL, DATA PROCESSII	2,380.00	15476	VT241AA
733136	TERMINAL, DATA PROCESSII	2,980.00	15476	VT241AA
733139	TERMINAL, DATA PROCESSII	2,380.00	15476	VT241AA
733140	TERMINAL, DATA PROCESSII	2,980.00	15476	VT241AA
733148	TERMINAL, DATA PROCESSII	2,380.00	15476	VT241AA
733149	TERMINAL, DATA PROCESSII	2,380.00	15476	VT241AA
807706	TEST SET POWER-SPECIAL I	6,274.00	80009	1503B
836584	RECEIVER-TRANSMITTER, R	6,300.00	24672	2100R
836585	CALIBRATOR FREQUENCY	9,590.00	24672	2110
857681	MODEM, COMMUNICATIONS	1,092.00	39748	FX115EL
857689	MODEM, COMMUNICATIONS	1,092.00	39748	FX115EL
860041	TEST SET, COMMUNICATION	5,995.00	PHOMS	95500A500001
1012762	SYNCHRONIZER, DUAL TRAC	12,240.00	0GY63	CENTRALRUS
1014592	RECORDER-REPRODUCER, '	1,725.00	S5175	AG6300
1014593	RECORDER-REPRODUCER, '	1,725.00	S5175	AG6300
1014595	RECORDER-REPRODUCER, '	1,725.00	S5175	AG6300
1014596	RECORDER-REPRODUCER, '	1,725.00	S5175	AG6300

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1150071	MONITOR, TELEVISION	2,037.00	56472	PVM5310
1150072	MONITOR, TELEVISION	2,037.00	56472	PVM5310
1151930	COMPUTER, MICRO	2,070.00	0HNU5	WIN AT386
1151977	TEST SET, COMMUNICATION	6,645.00	PHOMS	F55000
1152255	MONITOR, TELEVISION	2,037.00	56472	PVM5310
1152302	TEST SET, COMMUNICATION	6,645.00	PHOMS	F55000
1152500	COMPUTER, MICRO	5,456.00	7X430	147B
1152755	TEST SET, COMMUNICATION	7,595.00	PHOMS	F51480
1152930	MODEM, COMMUNICATIONS	1,463.00	39748	FX115EHSMA
1153626	TERMINAL, DATA PROCESSII	1,357.00	S5769	VT240
1154072	DISPLAY UNIT	992.00	56472	PVM1344Q
1154170	MEASUREMENT SET, VIDEO	19,500.00	80009	VM700
1154262	PROBE, TEST	9,776.00	NETWR	NP7100
1222179	TERMINAL, DATA PROCESSII	1,995.00	15476	VX20A-AA
1222183	DISPLAY UNIT	2,900.00	15476	VR320DA
1223219	DISK DRIVE UNIT	3,420.00	7X430	811X571A
1223301	COMPUTER, MICRO	6,407.00	7X430	147B
1225397	DISK DRIVE UNIT	3,420.00	7X430	811X571A
1225398	DISK DRIVE UNIT	756.00	7X430	411X559A

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1273008	DISPLAY UNIT	600.00	15476	VR241A
1273009	DISPLAY UNIT	600.00	15476	VR241A
1273010	DISPLAY UNIT	600.00	15476	VR241A
1273014	DISPLAY UNIT	600.00	15476	VR241A
1273015	DISPLAY UNIT	600.00	15476	VR241A
1273019	DISPLAY UNIT	600.00	15476	VR241A
1273023	DISPLAY UNIT	600.00	15476	VR241A
1273025	DISPLAY UNIT	600.00	15476	VR241A
1273026	DISPLAY UNIT	600.00	15476	VR241A
1273027	DISPLAY UNIT	600.00	15476	VR241A
1278897	PRINTER, ADP	2,285.00	15476	LN05CA
1278914	PRINTER, ADP	2,285.00	15476	LN05CA
1279850	CONVERTER, VIDEO	15,625.00	YAMSH	CVS980
1279851	CONVERTER, VIDEO	15,625.00	YAMSH	CVS980
1280731	CONSOLE, COMMUNICATION	5,894.00	33875	MLP2C
1280732	CONSOLE, COMMUNICATION	5,894.00	33875	MLP2C
1280733	CONSOLE, COMMUNICATION	5,894.00	33875	MLP2C
1280751	CONSOLE, COMMUNICATION	5,894.00	33875	MLP2C
1280753	CONSOLE, COMMUNICATION	5,894.00	33875	MLP2C

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1283338	DISPLAY UNIT	975.00	15476	VR299DA
1284915	COMPUTER, MICRO	2,835.00	56634	2646654001
1285239	ADAPTER, TELEPHONE	9,651.00	33875	8710460003
1397391	ADAPTER, TELEPHONE	6,277.00	33875	8710460004
1397392	ADAPTER, TELEPHONE	6,568.00	33875	8710460003
1397393	ADAPTER, TELEPHONE	6,568.00	33875	8710460003
1397394	ADAPTER, TELEPHONE	6,568.00	33875	8710460003
1398402	INTERFACE, COMPUTER	1,017.00	EXTRN	6011503
1400916	RECEIVER, VIDEO	1,271.00	59338	6604R
1400917	RECEIVER, VIDEO	1,271.00	59338	6604R
1400918	RECEIVER, VIDEO	1,271.00	59338	6604R
1400949	GENERATOR, SIGNAL	8,335.00	80009	1910
1401035	COMPUTER, MICRO	10,682.00	15476	PE30A-AA
1402300	DISPLAY UNIT	1,440.00	1Z004	GDM20D11
1402317	COMPUTER, MICRO	14,200.00	1Z004	CMNB006Y66
1439488	DISK DRIVE UNIT	1,005.00	7X430	411X545A
1440113	CONSOLE, COMMUNICATION	5,894.00	33875	MLP2C
1440852	OSCILLOSCOPE	6,831.00	89536	PM3394A063
1440853	OSCILLOSCOPE	6,831.00	89536	PM3394A063

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1534862	ADAPTER, TELEPHONE	12,313.00	33875	8710460003
1535218	TRANSPORT, MAGNETIC TAF	1,800.00	63000	4350XT
1535324	COMPUTER, MICRO	6,206.00	7X430	544
1535325	COMPUTER, MICRO	6,206.00	7X430	544
1536244	COMPUTER, MINI	109,114.00	1Z004	CMNA011
1536469	PRINTER, ADP	1,857.00	28480	C2039A
1536588	SERVER, TERMINAL	3,496.00	AMXXX	AXFMINI
1536589	SERVER, TERMINAL	3,496.00	0B2J2	AXFMINI
1536590	SERVER, TERMINAL	2,506.00	AMXXX	AXFBP
1536972	CONTROLLER, TELECONF	15,367.00	0219B	RC5000
1536973	CONTROLLER, TERMINAL	20,000.00	0219B	RM5000
1536974	CONTROLLER, TERMINAL	20,000.00	0219B	RM5000
1537048	REPRODUCER, VIDEO	3,050.00	CANON	RE650MKII
1537161	CAMERA-RECORDING, VIDEO	690.00	VIDLA	FLEXCAM
1537295	ADAPTER, TELEPHONE	5,135.00	33875	8710460005
1537296	ADAPTER, TELEPHONE	5,135.00	33875	8710460005
1537297	ADAPTER, TELEPHONE	5,135.00	33875	8710460005
1537298	ADAPTER, TELEPHONE	5,135.00	33875	8710460005
1537460	TRANSPORT, MAGNETIC TAF	2,278.00	7X430	411X844AST

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1538285	CABLEMETER, FIBER OPTICS	6,795.00	89536	672
1538310	DATA DISTRIBUTION SYSTEM	246,018.00	1EE69	NONE
1538575	ROUTER, COMMUNICATIONS	37,497.00	0GX96	7000
1538821	DISPLAY UNIT	2,947.00	7X430	GDM20D10
1538837	DISK DRIVE UNIT	2,407.00	15476	BA350KB
1538940	ROUTER, COMMUNICATIONS	14,138.00	0GX96	7000
1614626	MIXER, STAGE FREQUENCY	1,123.00	54715	SCM810
1634693	SERVER, RACKMOUNT	3,510.00	1GE11	SMP01
1634695	SERVER, RACKMOUNT	3,510.00	1GE11	SMP01
1665542	SERVER, RACKMOUNT	5,061.00	1GE11	SMP01
1665543	SERVER, RACKMOUNT	5,061.00	1GE11	SMP01
1665585	SWITCH, ETHERNET	6,197.00	0GX96	WS-C3550-12T
1665586	SWITCH, ETHERNET	6,197.00	0GX96	WS-C3550-12T
1665587	SWITCH, ETHERNET	6,197.00	0GX96	WS-C3550-12T
1665588	SWITCH, ETHERNET	6,197.00	0GX96	WS-C3550-12T
1665589	SWITCH, ETHERNET	6,197.00	0GX96	WS-C3550-12T
1665590	SWITCH, ETHERNET	6,197.00	0GX96	WS-C3550-12T
1665591	SWITCH, ETHERNET	6,197.00	0GX96	WS-C3550-12T
1665592	SWITCH, ETHERNET	6,197.00	0GX96	WS-C3550-12T

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1665639	SWITCH, ETHERNET	6,048.00	0GX96	WS-3550-12T
1665642	SERVER, RACKMOUNT	4,315.00	1B0C5	TS-2100GPS
1665643	SERVER, RACKMOUNT	4,315.00	1B0C5	TS-2100GPS
1665644	SERVER, RACKMOUNT	4,315.00	1B0C5	TS-2100GPS
1665645	SERVER, RACKMOUNT	4,315.00	1B0C5	TS-2100GPS
1665646	CAMERA, VIDEO	2,794.00	66557	GR-HD1U
1665647	COMPUTER, POCKET	1,020.00	28480	H550
1665648	ANALYZER, DIGITAL DATA	5,520.00	3D583	ONE T0
1665652	SWITCH, ETHERNET	6,250.00	0GX96	WS-3550-12T
1665654	SWITCH, ETHERNET	6,197.00	0GX96	WS-C3I
1665684	SERVER, RACKMOUNT	3,610.00	SUPMI	CSE-94
1665685	SERVER, RACKMOUNT	3,610.00	SUPMI	CSE-94
1665686	SERVER, RACKMOUNT	3,610.00	SUPMI	CSE-94
1665687	SERVER, RACKMOUNT	3,610.00	SUPMI	CSE-94
1665688	SERVER, RACKMOUNT	3,610.00	SUPMI	CSE-94
1665689	SERVER, RACKMOUNT	3,610.00	SUPMI	CSE-94
1665690	SERVER, RACKMOUNT	3,610.00	SUPMI	CSE-94
1665692	SERVER, RACKMOUNT	3,610.00	SUPMI	CSE-94
1665693	SERVER, RACKMOUNT	3,610.00	SUPMI	CSE-94

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1665715	SWITCH, ETHERNET	6,135.00	0GX96	WS-3550-12T
1665716	SWITCH, ETHERNET	6,135.00	0GX96	WS-3550-12T
1665717	SWITCH, ETHERNET	6,135.00	0GX96	WS-3550-12T
1665718	SWITCH, ETHERNET	6,135.00	0GX96	WS-3550-12T
1665720	SWITCH, ETHERNET	6,135.00	0GX96	WS-3550-12T
1665721	SWITCH, ETHERNET	6,135.00	0GX96	WS-3550-12T
1665722	SWITCH, ETHERNET	6,135.00	0GX96	WS-3550-12T
1665723	SWITCH, ETHERNET	6,135.00	0GX96	WS-3550-12T
1665724	SWITCH, ETHERNET	6,135.00	0GX96	WS-3550-12T
1665725	SWITCH, ETHERNET	6,135.00	0GX96	WS-3550-12T
1665726	SWITCH, ETHERNET	6,135.00	0GX96	WS-3550-12T
1665727	SWITCH, ETHERNET	6,135.00	0GX96	WS-3550-12T
1667025	SWITCH, ETHERNET	6,135.00	0GX96	WS355012T
1667043	SWITCH, ETHERNET	6,105.00	0GX96	WS-3550-12T
1667044	SWITCH, ETHERNET	6,105.00	0GX96	WS-3550-12T
1667054	SWITCH, ETHERNET	6,105.00	0GX96	WS-3550-12T
1667104	SWITCH, ETHERNET	6,168.00	0GX96	WS-C3550-12T
1667105	SWITCH, ETHERNET	6,168.00	0GX96	WS-C3550-12T
1667106	SWITCH, ETHERNET	6,168.00	0GX96	WS-C3550-12T

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1724319	COMPUTER, MICRO	11,486.00	7X430	544
1724320	COMPUTER, MICRO	11,486.00	7X430	544
1724524	PRINTER, ADP	3,559.00	28480	C3167A
1724526	PRINTER, ADP	3,559.00	28480	C3167A
1724527	PRINTER, ADP	3,559.00	28480	C3167A
1724530	PRINTER, ADP	3,559.00	28480	C3167A
1724533	CHASSIS, ELECTRICAL-ELEC	214,154.00	0GX96	7513
1724534	CHASSIS, ELECTRICAL-ELEC	45,494.00	0GX96	7513
1724658	DISK DRIVE UNIT	1,022.00	7X430	611X5152A
1724879	RECORDER, TELEMETRIC DA	119,737.00	S0482	DIR1000M
1724880	RECORDER, TELEMETRIC DA	119,737.00	S0482	DIR1000M
1724881	BUFFER, TELEMETRIC DATA	77,647.00	S0482	DFC1800N
1724882	BUFFER, TELEMETRIC DATA	77,647.00	S0482	DFC1800N
1725238	DISPLAY UNIT	949.00	S0482	CPD17SF2
1726193	PRINTER, ADP	3,963.00	28480	C3167A
1726194	PRINTER, ADP	3,963.00	28480	C3167A
1726195	PRINTER, ADP	3,963.00	28480	C3167A
1726196	PRINTER, ADP	3,963.00	28480	C3167A
1726198	PRINTER, ADP	3,963.00	28480	C3167A

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1727675	EXPANSION UNIT, COMMUNI	55,943.00	15422	LINK19
1727676	EXPANSION UNIT, COMMUNI	89,422.00	15422	LINK19
1727677	MULTIPLEXER	148,466.00	15422	TX3
1727678	EXPANSION UNIT, COMMUNI	41,892.00	15422	LINK19
1727679	MULTIPLEXER	51,832.00	15422	TX3
1727680	EXPANSION UNIT, COMMUNI	72,789.00	15422	LINK19
1727681	EXPANSION UNIT, COMMUNI	80,167.00	15422	LINK19
1727682	MULTIPLEXER	140,111.00	15422	TX3
1727753	COMPUTER, MINI	203,221.00	1Z004	CMNA011
1727755	TRANSPORT, MAGNETIC TAF	6,752.00	1Z004	TH4BA-CU
1740652	LIFT, PROJECTOR	5,005.00	0KPL7	7EXRD9
1740653	LIFT, PROJECTOR	5,005.00	0KPL7	7EXRD9
1740664	MONITOR, TELEVISION	1,044.00	S0482	PVM1354Q
1740665	MONITOR, TELEVISION	1,044.00	S0482	PVM1354Q
1740666	MONITOR, TELEVISION	1,044.00	S0482	PVM1354Q
1740667	MONITOR, TELEVISION	1,044.00	S0482	PVM1354Q
1740668	MONITOR, TELEVISION	1,044.00	S0482	PVM1354Q
1740726	CHASSIS, ELECTRICAL-ELEC	5,065.00	53071	FR1215B10A
1740727	CHASSIS, ELECTRICAL-ELEC	5,065.00	53071	FR1215B10A

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1896494	SWITCHING UNIT, ELECTRO	137,637.00	PESIN	RC5000DUAL
1896495	CHASSIS, ELECTRICAL-ELEC	6,000.00	PESIN	RM5000
1896496	CHASSIS, ELECTRICAL-ELEC	6,000.00	PESIN	RM5000
1896497	CHASSIS, ELECTRICAL-ELEC	7,000.00	PESIN	MVDA5000
1896498	CHASSIS, ELECTRICAL-ELEC	7,000.00	PESIN	MVDA5000
1896568	ANALYZER, DATA ERROR	14,490.00	61141	6000A
1896605	SERVER, TERMINAL	44,441.00	7X430	3000
1896610	DISPLAY UNIT	3,317.00	7X430	GDM20E20
1896774	ANALYZER, NETWORK	13,996.00	0HX28	S166LPR16EC
1896830	CAMERA-RECORDING, VIDEO	945.00	1Z004	CMNB006C
1898197	COMPUTER, MICRO	4,282.00	7X430	150
1898198	DISK DRIVE UNIT	1,575.00	7X430	611CD
1898199	DISPLAY UNIT	2,950.00	7X430	GDM20E20
1898246	TEST SET, COMMUNICATION	6,695.00	51778	D400
1898249	OPTICAL READER, DATA EN	705.00	61722	MNG590A
1898326	COMPUTER, MICRO	6,121.00	58802	PAC64
1898428	TEST ADVISOR	5,009.00	28480	E6325A
1898429	TEST ADVISOR	5,009.00	28480	E6325A
1899550	COMPUTER, MICRO	44,312.00	1Z004	CMNB0

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1935541	HUB, ETHERNET	899.00	UNISY	3C16670A
1935543	HUB, ETHERNET	899.00	UNISY	3C16670A
1935670	ROUTER, COMMUNICATIONS	22,451.00	0GX96	C4500
1935734	DISK DRIVE UNIT	1,850.00	28480	C2966D
1935779	CONSOLE, COMMUNICATION	5,129.00	33875	MLP3
1935780	CONSOLE, COMMUNICATION	5,129.00	33875	MLP3
1935781	CONSOLE, COMMUNICATION	5,129.00	33875	MLP3
1935782	CONSOLE, COMMUNICATION	5,129.00	33875	MLP3
1935783	CONSOLE, COMMUNICATION	5,129.00	33875	MLP3
1935784	CONSOLE, COMMUNICATION	5,129.00	33875	MLP3
1935785	CONSOLE, COMMUNICATION	5,129.00	33875	MLP3
1935786	CONSOLE, COMMUNICATION	5,129.00	33875	MLP3
1935787	CONSOLE, COMMUNICATION	5,129.00	33875	MLP3
1935788	CONSOLE, COMMUNICATION	5,129.00	33875	MLP3
1935789	CONSOLE, COMMUNICATION	5,129.00	33875	MLP3
1935790	CONSOLE, COMMUNICATION	5,129.00	33875	MLP3
1935791	TELEPHONE CONFERENCE (	8,733.00	33875	RB/MLP3D
1935792	TELEPHONE CONFERENCE (8,733.00	33875	RB/MLP3D
1935793	TELEPHONE CONFERENCE (8,733.00	33875	RB/MLP3D

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1935813	TELEPHONE CONFERENCE (8,440.00	33875	RB/MLP3I
1935814	TELEPHONE CONFERENCE (8,440.00	33875	RB/MLP3I
1935815	CONSOLE, COMMUNICATION	5,129.00	33875	MLP3
1935816	CONSOLE, COMMUNICATION	5,129.00	33875	MLP3
1935817	CONSOLE, COMMUNICATION	5,129.00	33875	MLP3
1935818	CONSOLE, COMMUNICATION	5,129.00	33875	MLP3
1935819	CONSOLE, COMMUNICATION	5,129.00	33875	MLP3
1935820	CONSOLE, COMMUNICATION	5,129.00	33875	MLP3
1935821	CONSOLE, COMMUNICATION	5,129.00	33875	MLP3
1935822	CONSOLE, COMMUNICATION	5,129.00	33875	MLP3
1935823	CONSOLE, COMMUNICATION	5,129.00	33875	MLP3
1935824	CONSOLE, COMMUNICATION	5,129.00	33875	MLP3
1935825	CONSOLE, COMMUNICATION	5,129.00	33875	MLP3
1935826	CONSOLE, COMMUNICATION	5,129.00	33875	MLP3
1935827	CONSOLE, COMMUNICATION	5,129.00	33875	MLP3
1935828	CONSOLE, COMMUNICATION	5,129.00	33875	MLP3
1935829	CONSOLE, COMMUNICATION	5,129.00	33875	MLP3
1935830	CONSOLE, COMMUNICATION	5,129.00	33875	MLP3
1935831	CONSOLE, COMMUNICATION	5,129.00	33875	MLP3

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1935851	TELEPHONE CONFERENCE (8,440.00	33875	RB/MLP3I
1935852	TELEPHONE CONFERENCE (8,440.00	33875	RB/MLP3I
1935853	TELEPHONE CONFERENCE (	8,440.00	33875	RB/MLP3I
1935854	TELEPHONE CONFERENCE (	8,440.00	33875	RB/MLP3I
1935855	TELEPHONE CONFERENCE (	8,440.00	33875	RB/MLP3I
1935856	TELEPHONE CONFERENCE (	8,440.00	33875	RB/MLP3I
1935857	TELEPHONE CONFERENCE (	8,440.00	33875	RB/MLP3I
1935858	TELEPHONE CONFERENCE (	8,440.00	33875	RB/MLP3I
1935859	TELEPHONE CONFERENCE (	8,440.00	33875	RB/MLP3I
1935860	TELEPHONE CONFERENCE (	8,440.00	33875	RB/MLP3I
1935861	TELEPHONE CONFERENCE (	8,440.00	33875	RB/MLP3I
1935862	TELEPHONE CONFERENCE (	8,440.00	33875	RB/MLP3I
1935863	TELEPHONE CONFERENCE (	8,440.00	33875	RB/MLP3I
1935864	TELEPHONE CONFERENCE (	8,440.00	33875	RB/MLP3I
1935865	TELEPHONE CONFERENCE (	8,440.00	33875	RB/MLP3I
1935924	TELEPHONE CONFERENCE (	8,733.00	33875	RB/MLP3D
1935925	TELEPHONE CONFERENCE (	8,733.00	33875	RB/MLP3D
1935926	TELEPHONE CONFERENCE (8,733.00	33875	RB/MLP3D
1935928	TELEPHONE CONFERENCE (8,733.00	33875	RB/MLP3D

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1936287	TELEPHONE CONFERENCE (8,733.00	33875	RB/MLP3D
1936288	CONSOLE, COMMUNICATION	5,129.00	33875	MLP3
1936289	CONSOLE, COMMUNICATION	5,129.00	33875	MLP3
1936290	CONSOLE, COMMUNICATION	5,129.00	33875	MLP3
1936291	CONSOLE, COMMUNICATION	5,129.00	33875	MLP3
1936292	CONSOLE, COMMUNICATION	5,129.00	33875	MLP3
1936293	CONSOLE, COMMUNICATION	5,129.00	33875	MLP3
1936294	CONSOLE, COMMUNICATION	5,129.00	33875	MLP3
1936295	CONSOLE, COMMUNICATION	5,129.00	33875	MLP3
1936296	CONSOLE, COMMUNICATION	5,129.00	33875	MLP3
1936297	CONSOLE, COMMUNICATION	5,129.00	33875	MLP3
1936298	TELEPHONE CONFERENCE (	8,440.00	33875	RB/MLP3I
1936299	TELEPHONE CONFERENCE (	8,440.00	33875	RB/MLP3I
1936300	TELEPHONE CONFERENCE (	8,440.00	33875	RB/MLP3I
1936621	TELEPHONE CONFERENCE (	8,733.00	33875	RB/MLP3D
1936622	TELEPHONE CONFERENCE (	8,733.00	33875	RB/MLP3D
1936623	TELEPHONE CONFERENCE (	8,733.00	33875	RB/MLP3D
1936624	TELEPHONE CONFERENCE (8,733.00	33875	RB/MLP3D
1936625	TELEPHONE CONFERENCE (8,733.00	33875	RB/MLP3D

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1936971	DISK DRIVE UNIT	1,850.00	28480	C6390A4GB
1937053	TELEPHONE CONFERENCE (8,733.00	33875	RB/MLP3D
1937054	TELEPHONE CONFERENCE (	8,733.00	33875	RB/MLP3D
1937055	TELEPHONE CONFERENCE (	8,733.00	33875	RB/MLP3D
1937056	CONSOLE, COMMUNICATION	5,129.00	33875	MLP3
1937057	CONSOLE, COMMUNICATION	5,129.00	33875	MLP3
1937058	CONSOLE, COMMUNICATION	5,129.00	33875	MLP3
1937059	CONSOLE, COMMUNICATION	5,129.00	33875	MLP3
1937060	TELEPHONE CONFERENCE (	8,440.00	33875	RB/MLP3I
1937061	TELEPHONE CONFERENCE (	8,440.00	33875	RB/MLP3I
1937062	TELEPHONE CONFERENCE (	8,440.00	33875	RB/MLP3I
1937063	TELEPHONE CONFERENCE (	8,440.00	33875	RB/MLP3I
1937202	TRANSPORT, MAGNETIC TAF	825.00	7X430	611TD
1937422	CONSOLE, COMMUNICATION	5,129.00	33875	MLP3
1937423	CONSOLE, COMMUNICATION	5,129.00	33875	MLP3
1937424	CONSOLE, COMMUNICATION	5,129.00	33875	MLP3
1937425	TELEPHONE CONFERENCE (	8,733.00	33875	RB/MLP3I
1937426	TELEPHONE CONFERENCE (8,733.00	33875	RB/MLP3I
1937427	TELEPHONE CONFERENCE (8,733.00	33875	RB/MLP3I

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1958106	PRINTER, ADP	1,000.00	28480	6LXI
1958110	CAMERA-RECORDING, VIDEO	500.00	06763	YH7B57M
1958411	LIBRARY, STORAGE MODULE	123,963.00	55299	POWER
1958412	CONTROL UNIT, STORAGE M	31,568.00	55299	9311
1958416	LIBRARY MANAGEMENT UNI	34,752.00	55299	9330
1958417	COMPUTER, MICRO	7,200.00	55299	MARST
1958419	DISPLAY UNIT	1,642.00	7X430	GDM17E20
1958420	COMPUTER, MICRO	7,324.00	7X430	SPARC5
1962124	SERVER, TERMINAL	3,153.00	0GX96	CISCO2511
1962125	SERVER, TERMINAL	3,153.00	0GX96	CISCO2511
1962375	PRINTER, ADP	3,000.00	28480	C4087A
1962675	ARRAY, STORAGE	45,956.00	7X430	ENTERPRISE
1962980	DISPLAY UNIT	500.00	024U5	700VX
1963002	COMPUTER, MICRO	3,488.00	59100	PENTIUM
1963005	COMPUTER, MICRO	12,944.00	7X430	ENTER
1963009	DISK DRIVE UNIT	2,423.00	7X430	N218
1963010	DISK DRIVE UNIT	3,154.00	7X430	711
1963099	PRINTER, ADP	3,195.00	28480	C4216A
1963144	PRINTER, ADP	2,410.00	28480	C4112A

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1963370	CHASSIS, ELECTRICAL-ELEC	6,212.00	49956	8710461
1963371	CHASSIS, ELECTRICAL-ELEC	6,212.00	49956	8710460
1963372	CHASSIS, ELECTRICAL-ELEC	6,599.00	49956	8710461
1963373	CHASSIS, ELECTRICAL-ELEC	6,599.00	49956	8710461
1963374	CHASSIS, ELECTRICAL-ELEC	6,599.00	49956	8710461
1963379	COMPUTER, MICRO	38,743.00	1Z004	CMNB0
1963621	COMPUTER, MICRO	9,233.00	1Z004	CMNB0
1963704	DISK DRIVE UNIT, READ/WRI	3,750.00	WYTRO	DD1000
1963735	ROUTER, COMMUNICATIONS	10,807.00	0GX96	C2900
1963738	COMPUTER, MICRO, LAPTOP	2,826.00	024U5	NBKU375
1963811	SWITCHING UNIT	9,560.00	0E0R8	ER9817
1963847	ARRAY, STORAGE	37,194.00	7X430	45G
1963871	COMPUTER, MICRO	2,940.00	7X430	ULTRA5
1963872	COMPUTER, MICRO	2,940.00	7X430	ULTRA5
1963874	DISK DRIVE UNIT	1,260.00	7X430	611
1963876	DISK DRIVE UNIT	1,260.00	7X430	611
1963878	MONITOR, VIDEO, COLOR	1,180.00	S5175	BT-H1390Y
1963879	MONITOR, WAVEFORM	5,040.00	56614	TVM710
1964033	RECORDER-REPRODUCER, '	1,482.00	S5175	AG-6740P

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1964217	COMPUTER, MICRO	1,410.00	IMPEX	P11450
1964237	COMPUTER, MICRO	1,410.00	IMPEX	P11450
1964241	DISPLAY UNIT	500.00	MS052	VCDTS21383
1964242	DISPLAY UNIT	500.00	IMPEX	VCDTS21383
1964246	DISPLAY UNIT	500.00	MS052	VCDTS
1964249	DISPLAY UNIT	500.00	MS052	VCDTS
1964251	DISPLAY UNIT	500.00	MS052	VCDTS
1964259	DISPLAY UNIT	500.00	MS052	VCDTS
1964272	DISPLAY UNIT	500.00	MS052	VCDTS
1964432	DISPLAY UNIT	1,245.00	7X430	AK8GD
1964484	DISPLAY UNIT	765.00	VIESO	G810-2M
1964487	DISPLAY UNIT	765.00	VIESO	G810-2M
1964719	COMPUTER, MICRO, LAPTOP	3,453.00	024U5	NBKU376
1964888	CHASSIS, ELECTRICAL-ELEC	23,689.00	1Z004	DT043099
1964983	SYSTEM, STATION TIMING	19,860.00	52407	PRR10 |
1964984	SYSTEM, STATION TIMING	18,602.00	52407	PRR10 |
1964994	COMPUTER, MICRO	8,941.00	1Z004	CMNB0
1964996	COMPUTER, MICRO	8,941.00	1Z004	CMNB0
1964999	COMPUTER, MICRO	8,941.00	1Z004	CMNB0

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1965798	TAPE DRIVE UNIT	525.00	7X430	4MMDDS-2
1965799	TAPE DRIVE UNIT	525.00	7X430	4MMDDS-2
1965800	TAPE DRIVE UNIT	525.00	7X430	4MMDDS-2
1965805	PRINTER, ADP	5,385.00	28480	C6075A
1965843	CHASSIS, ELECTRICAL-ELEC	5,974.00	0GX96	560-187-87S
1965890	PROJECTOR, VIDEO	4,495.00	1V389	LCXNB2U
1965921	PRINTER, ADP	3,154.00	28480	C4216A
1965922	PRINTER, ADP	2,435.00	28480	C4112A
1965923	PRINTER, ADP	2,435.00	28480	C4112A
1965924	PRINTER, ADP	2,435.00	28480	C4112A
2014527	COMPUTER, MICRO	2,210.00	65685	DESKPRO
2014708	DISK DRIVE UNIT	11,178.00	7X430	EXB220
2014739	CHASSIS, ELECTRICAL-ELEC	79,704.00	0GX96	WS-C6I
2014740	CHASSIS, ELECTRICAL-ELEC	79,704.00	0GX96	WS-C6I
2014741	CHASSIS, ELECTRICAL-ELEC	62,812.00	0GX96	WS-C6I
2014742	CHASSIS, ELECTRICAL-ELEC	62,812.00	0GX96	WS-C6I
2014822	FILESERVER	10,017.00	65685	ML370
2014875	DISK DRIVE UNIT	1,229.00	7X430	NONE
2014887	DISK DRIVE UNIT	1,481.00	7X430	NONE

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2015161	JUKEBOX, OPTICAL LIBRARY	1,260.00	65685	DS-TL891NT
2015162	DISPLAY UNIT	862.00	65685	PE1141
2015208	CHASSIS, ELECTRICAL-ELEC	50,506.00	0GX96	WS-C6I
2015209	CHASSIS, ELECTRICAL-ELEC	50,506.00	0GX96	WS-C6I
2015274	PRINTER, ADP	1,592.00	65685	C4254A
2015294	PROJECTOR, VIDEO	11,520.00	1V389	LC-X2U
2015295	PROJECTOR, VIDEO	11,520.00	1V389	LC-X2U
2015439	COMPUTER, MICRO	569.00	CAMAR	50XMAX
2015461	COMPUTER, MICRO	569.00	CAMAR	50XMAX
2015464	COMPUTER, MICRO	569.00	CAMAR	50XMAX
2015467	COMPUTER, MICRO	569.00	CAMAR	50XMAX
2015494	HARD, DRIVE	1,669.00	65685	COMPA
2015522	HARD, DRIVE	1,790.00	65685	DESKPROEN
2015559	DISK DRIVE UNIT	1,162.00	7X430	390000202
2015577	ARRAY, STORAGE	23,450.00	7X430	A5100
2015578	ARRAY, STORAGE	40,035.00	7X430	A5100
2015644	COMPUTER, MICRO	72,216.00	0G3K8	AX6151AT
2015645	COMPUTER, MICRO	72,216.00	0G3K8	AX6151AT
2015755	COMPUTER, MICRO	708.00	28480	NONE

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2016694	COMPUTER, MICRO	2,336.00	0G3K8	7400SERVER
2016695	COMPUTER, MICRO	2,336.00	0G3K8	7400SERVER
2016697	COMPUTER, MICRO	2,336.00	0G3K8	7400SERVER
2016699	COMPUTER, MICRO	2,336.00	0G3K8	7400SERVER
2016700	COMPUTER, MICRO	2,336.00	0G3K8	7400SERVER
2016701	COMPUTER, MICRO	2,336.00	0G3K8	7400SERVER
2016702	COMPUTER, MICRO	2,336.00	0G3K8	7400SERVER
2016704	COMPUTER, MICRO	2,336.00	0G3K8	7400SERVER
2016705	COMPUTER, MICRO	2,187.00	0G3K8	7400SERVER
2016715	COMPUTER, MICRO	4,518.00	1GE11	WHL
2016717	COMPUTER, MICRO	4,518.00	1GE11	WHL
2016718	COMPUTER, MICRO	4,518.00	1GE11	WHL
2016719	COMPUTER, MICRO	4,518.00	1GE11	WHL
2016720	COMPUTER, MICRO	4,518.00	1GE11	WHL
2016721	COMPUTER, MICRO	4,518.00	1GE11	WHL
2016769	DISPLAY UNIT	637.00	1GE11	1701FP
2016770	COMPUTER, MICRO	1,434.00	0G3K8	ATXSTI
2016775	COMPUTER, MICRO	1,434.00	0G3K8	ATXSTI
2016777	COMPUTER, MICRO	1,434.00	0G3K8	ATXSTI

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2016895	DISPLAY UNIT	864.00	0G3K8	LCD1830
2016896	DISPLAY UNIT	864.00	0G3K8	LCD1830
2016897	DISPLAY UNIT	864.00	0G3K8	LCD1830
2016898	DISPLAY UNIT	864.00	0G3K8	LCD1830
2016899	DISPLAY UNIT	864.00	0G3K8	LCD1830
2016900	DISPLAY UNIT	864.00	0G3K8	LCD1830
2016901	DISPLAY UNIT	864.00	0G3K8	LCD1830
2016902	DISPLAY UNIT	864.00	0G3K8	LCD1830
2016924	DISPLAY UNIT	768.00	S0482	CPD-G520
2016962	COMPUTER, MICRO	5,388.00	28480	5X140
2016963	COMPUTER, MICRO	5,388.00	28480	5X140
2016993	COMPUTER, MICRO	4,518.00	1GE11	WHL
2016994	DISPLAY UNIT	864.00	S5769	LCD 1830
2016995	DISPLAY UNIT	864.00	S5769	LCD 1830
2016996	DISPLAY UNIT	864.00	S5769	LCD 1830
2016997	DISPLAY UNIT	864.00	S5769	LCD 1830
2016998	DISPLAY UNIT	864.00	S5769	LCD 1830
2016999	DISPLAY UNIT	864.00	S5769	LCD 1830
2017000	DISPLAY UNIT	864.00	S5769	LCD 1830

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2017020	DISPLAY UNIT	864.00	S5769	LCD 1830
2017021	DISPLAY UNIT	864.00	S5769	LCD 1830
2017022	DISPLAY UNIT	864.00	S5769	LCD 1830
2017023	DISPLAY UNIT	864.00	S5769	LCD 1830
2017024	DISPLAY UNIT	864.00	S5769	LCD 1830
2017025	DISPLAY UNIT	864.00	S5769	LCD 1830
2017026	DISPLAY UNIT	864.00	S5769	LCD 1830
2017027	DISPLAY UNIT	864.00	S5769	LCD 1830
2017028	DISPLAY UNIT	864.00	S5769	LCD 1830
2017029	DISPLAY UNIT	864.00	S5769	LCD 1830
2017030	DISPLAY UNIT	864.00	S5769	LCD 1830
2017031	DISPLAY UNIT	864.00	S5769	LCD 1830
2017032	DISPLAY UNIT	864.00	S5769	LCD 1830
2017033	DISPLAY UNIT	864.00	S5769	LCD 1830
2017034	DISPLAY UNIT	864.00	S5769	LCD 1830
2017035	DISPLAY UNIT	864.00	S5769	LCD 1830
2017036	DISPLAY UNIT	864.00	S5769	LCD 1830
2017037	DISPLAY UNIT	864.00	S5769	LCD 1830
2017038	DISPLAY UNIT	864.00	S5769	LCD 1830

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2017418	COMPUTER, MICRO	1,434.00	0G3K8	ATXSTFE4600
2017420	COMPUTER, MICRO	1,434.00	0G3K8	ATXSTFE4600
2017422	COMPUTER, MICRO	1,434.00	0G3K8	ATXSTFE4600
2017430	COMPUTER, MICRO	1,434.00	0G3K8	ATXSTFE4600
2017436	COMPUTER, MICRO	1,434.00	0G3K8	ATXSTFE4600
2017439	COMPUTER, MICRO	1,434.00	0G3K8	ATXSTFE4600
2017441	COMPUTER, MICRO	1,434.00	0G3K8	ATXSTFE4600
2017582	TRANSPORT, MAGNETIC TAF	7,197.00	1Z004	GDM-20E21
2017693	COMPUTER, MICRO	4,505.00	1GE11	WHL
2017694	COMPUTER, MICRO	4,505.00	1GE11	WHL
2017695	COMPUTER, MICRO	5,981.00	1GE11	WHL
2017696	COMPUTER, MICRO	5,981.00	1GE11	WHL
2017697	DISPLAY UNIT	637.00	1GE11	1702FP
2017698	DISPLAY UNIT	637.00	1GE11	1702FP
2017706	COMPUTER, MICRO	4,505.00	1GE11	WHL
2017707	COMPUTER, MICRO	4,505.00	1GE11	WHL
2017708	COMPUTER, MICRO	4,505.00	1GE11	WHL
2017718	DISPLAY UNIT	1,440.00	1Z004	GDM20E21
2017721	COMMUNICATION SERVER	25,139.00	1Z004	CMN016

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2129302	MODULE, NETWORK ANALYS	9,597.00	0GX96	WS-X6380NAM
2129303	MODULE, NETWORK ANALYS	9,597.00	0GX96	WS-X6380NAM
2129307	COMPUTER, MICRO, LAPTOF	2,402.00	0G3K8	600YGR
2129313	SERVER, NETWORK	3,128.00	MS003	S2603
2129337	SERVER, RACKMOUNT	4,834.00	1TMQ0	NONE
2129338	SWITCH, FIBER OPTIC	9,000.00	1TNP0	BR2802-0008
2129340	SWITCH, FIBER OPTIC	9,000.00	1TNP0	BR2802-0008
2129344	SWITCH, FIBER OPTIC	9,000.00	1TNP0	BR2802-0008
2129367	COMPUTER, MICRO	1,285.00	0G3K8	ATXSTI
2129368	COMPUTER, MICRO	1,285.00	0G3K8	ATXSTI
2129369	COMPUTER, MICRO	1,285.00	0G3K8	ATXSTI
2129370	COMPUTER, MICRO	1,285.00	0G3K8	ATXSTI
2129375	COMPUTER, MICRO	1,285.00	0G3K8	ATXSTI
2129376	COMPUTER, MICRO	1,285.00	0G3K8	ATXSTI
2129378	COMPUTER, MICRO	1,285.00	0G3K8	ATXSTI
2129379	COMPUTER, MICRO	1,285.00	0G3K8	ATXSTI
2129380	COMPUTER, MICRO	1,285.00	0G3K8	ATXSTI
2129381	COMPUTER, MICRO	1,285.00	0G3K8	ATXSTI
2129382	COMPUTER, MICRO	1,285.00	0G3K8	ATXSTI

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2129468	SWITCH, ETHERNET	6,397.00	0GX96	WS-C3550-12T
2129469	SWITCH, ETHERNET	6,397.00	0GX96	WS-C3550-12T
2129470	SWITCH, ETHERNET	6,397.00	0GX96	WS-C3550-12T
2129471	SWITCH, ETHERNET	6,397.00	0GX96	WS-C3550-12T
2129472	SWITCH, ETHERNET	6,397.00	0GX96	WS-C3550-12T
2129473	SWITCH, ETHERNET	6,397.00	0GX96	WS-C3550-12T
2129481	DISPLAY UNIT	2,049.00	0G3K8	AR8215
2129482	DISPLAY UNIT	2,049.00	0G3K8	AR8215
2129499	COMPUTER, RACKMOUNT	4,582.00	MS003	NONE
2129512	DISPLAY UNIT	1,721.00	APCXX	S1-15
2129513	DISPLAY UNIT	1,721.00	APCXX	S1-15
2129514	DISPLAY UNIT	1,721.00	APCXX	S1-15
2129515	DISPLAY UNIT	1,721.00	APCXX	S1-15
2129516	DISPLAY UNIT	1,721.00	APCXX	S1-15
2129517	DISPLAY UNIT	1,721.00	APCXX	S1-15
2129518	DISPLAY UNIT	1,721.00	APCXX	S1-15
2129519	DISPLAY UNIT	1,721.00	APCXX	S1-15
2129520	DISPLAY UNIT	1,721.00	APCXX	S1-15
2129521	DISPLAY UNIT	1,721.00	APCXX	S1-15

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2129689	COMPUTER, RACKMOUNT	3,625.00	BYTEZ	NONE
2129690	COMPUTER, RACKMOUNT	3,625.00	BYTEZ	NONE
2129691	COMPUTER, RACKMOUNT	3,625.00	BYTEZ	NONE
2129692	COMPUTER, RACKMOUNT	3,625.00	BYTEZ	NONE
2129693	COMPUTER, RACKMOUNT	3,625.00	BYTEZ	NONE
2129694	COMPUTER, RACKMOUNT	3,625.00	BYTEZ	NONE
2129695	COMPUTER, RACKMOUNT	3,625.00	BYTEZ	NONE
2129696	COMPUTER, RACKMOUNT	3,625.00	BYTEZ	NONE
2129697	COMPUTER, RACKMOUNT	3,625.00	BYTEZ	NONE
2129698	COMPUTER, RACKMOUNT	3,625.00	BYTEZ	NONE
2129758	DISPLAY UNIT	863.00	1Z004	GDM5411
2129768	COMPUTER, MICRO	3,625.00	BYTEZ	NONE
2129770	COMPUTER, MICRO	3,625.00	BYTEZ	NONE
2129771	COMPUTER, MICRO	3,625.00	BYTEZ	NONE
2129777	SWITCH, FIBER OPTIC	9,000.00	1TNP0	BR2802-0008
2129780	SWITCH, FIBER OPTIC	9,500.00	1TNP0	BR2802-0008
2129796	COMPUTER, MICRO	4,844.00	1GE11	DHM
2129802	COMPUTER, RACKMOUNT	3,625.00	BYTEZ	NONE
2129803	COMPUTER, RACKMOUNT	3,625.00	BYTEZ	NONE

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2129933	COMPUTER, MICRO	1,184.00	65685	D510CA
2129934	COMPUTER, MICRO	1,184.00	65685	D510CA
2130745	COMPUTER, MICRO	1,184.00	65685	D510CA
2130746	COMPUTER, MICRO	1,184.00	65685	D510CA
2130747	COMPUTER, MICRO	1,184.00	65685	D510CA
2130748	COMPUTER, MICRO	1,184.00	65685	D510CA
2130749	DISPLAY UNIT	679.00	1R9X7	LCD1850E
2130750	DISPLAY UNIT	679.00	1R9X7	LCD1850E
2130751	DISPLAY UNIT	679.00	1R9X7	LCD1850E
2130752	DISPLAY UNIT	679.00	1R9X7	LCD1850E
2130753	DISPLAY UNIT	679.00	1R9X7	LCD1850E
2130754	DISPLAY UNIT	679.00	1R9X7	LCD1850E
2130755	DISPLAY UNIT	679.00	1R9X7	LCD1850E
2130757	DISPLAY UNIT	679.00	1R9X7	LCD1850E
2130758	DISPLAY UNIT	679.00	1R9X7	LCD1850E
2130759	DISPLAY UNIT	679.00	1R9X7	LCD1850E
2130760	DISPLAY UNIT	679.00	1R9X7	LCD1850E
2130761	DISPLAY UNIT	679.00	1R9X7	LCD1850E
2130762	DISPLAY UNIT	679.00	1R9X7	LCD1850E

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2130783	DISPLAY UNIT	679.00	1R9X7	LCD1850E
2130784	DISPLAY UNIT	679.00	1R9X7	LCD1850E
2130785	DISPLAY UNIT	679.00	1R9X7	LCD1850E
2130786	DISPLAY UNIT	679.00	1R9X7	LCD1850E
2130787	DISPLAY UNIT	679.00	1R9X7	LCD1850E
2130788	DISPLAY UNIT	679.00	1R9X7	LCD1850E
2130789	DISPLAY UNIT	679.00	1R9X7	LCD1850E
2130790	DISPLAY UNIT	679.00	1R9X7	LCD1850E
2130791	DISPLAY UNIT	679.00	1R9X7	LCD1850E
2130792	DISPLAY UNIT	679.00	1R9X7	LCD1850E
2130793	DISPLAY UNIT	679.00	1R9X7	LCD1850E
2130794	DISPLAY UNIT	679.00	1R9X7	LCD1850E
2130795	DISPLAY UNIT	679.00	1R9X7	LCD1850E
2130796	DISPLAY UNIT	679.00	1R9X7	LCD1850E
2130797	DISPLAY UNIT	679.00	1R9X7	LCD1850E
2130798	DISPLAY UNIT	679.00	1R9X7	LCD1850E
2130799	DISPLAY UNIT	679.00	1R9X7	LCD1850E
2130800	DISPLAY UNIT	679.00	1R9X7	LCD1850E
2130801	DISPLAY UNIT	679.00	1R9X7	LCD1850E

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2130822	DISPLAY UNIT	679.00	1R9X7	LCD1850E
2130823	DISPLAY UNIT	679.00	1R9X7	LCD1850E
2130824	DISPLAY UNIT	679.00	1R9X7	LCD1850E
2130825	DISPLAY UNIT	679.00	1R9X7	LCD1850E
2130826	DISPLAY UNIT	679.00	1R9X7	LCD1850E
2130827	DISPLAY UNIT	679.00	1R9X7	LCD1850E
2130828	DISPLAY UNIT	679.00	1R9X7	LCD1850E
2130829	DISPLAY UNIT	679.00	1R9X7	LCD1850E
2130830	DISPLAY UNIT	679.00	1R9X7	LCD1850E
2130831	DISPLAY UNIT	679.00	1R9X7	LCD1850E
2130832	DISPLAY UNIT	679.00	1R9X7	LCD1850E
2130975	DISPLAY UNIT	599.00	65685	7020
2130976	DISPLAY UNIT	599.00	65685	7020
2131036	ANALYZER, DATA ERROR	7,646.00	61141	6000A
2131093	DISPLAY UNIT	679.00	1R9X7	LCD1850E
2131111	CONTROLLER, COMPUTER	20,000.00	0DCP0	RS-1600-FC
2131157	COMPUTER,MINI	1,576.00	64928	S24-DS11
2131158	SERVER,RACKMOUNT	3,796.00	1GE11	POWER
2131159	SERVER,RACKMOUNT	3,796.00	1GE11	POWER

National Aeronautics and Space Administration					DATA PROCUREMENT DOC.
DOCUMENT CHANGE LOG					NO. ISSUE
					1016 Revision E
INCORPORATED REVISIONS OUTSTANDING REVISIONS				AS OF: 01-01-09	SUPERSEDING: 04-24-08
					PAGE: 2 of 2
AUTHORITY	PORTION AFFECTED - PAGE NO./NO.				REMARKS
(DPD Revision)	INTRO	SGR	DRL	DRD	
Contract Mod. 42			X	X	Updated Organizational codes as required throughout document
			X	X	Added DRD 1016MA-009 – Organizational Conflict of Interest (OCI) Avoidance Plan
Contract Mod. 59				1016CD-001 & 1016MA-005	Item 15.2 - Changed title of NFS 1852.204-76 to "Security Requirements for Unclassified Information Technology Resources (November 2004 [Deviation])
			X	1016CD-002	Deleted – replaced by 1016MA-010
			X	X	Added the following DRDs: 1016MA-010, Badged Employee and Remote IT User Listing; 1016MA-011, Contractor Employee Clearance Document; 1016MA-012, Position Risk Designation for Non-NASA Employees Form
				X	Updated Organizational codes as required throughout document
Contract Mod. 75			X	X	Deleted the following DRD: 1016CD-001, Information Technology Security Plan(s)
				1016SA-001	Replaced with current standard
				1016SA-002	Replaced with current standard
Contract Mod. 83 (Revision E)					Replaced Statement of General Requirements (SGR) with current (pages J-2-5 through J-2-10).
				1016LS-001	Replaced with current standard.
				1016MA-010	Replaced with current standard.
				1016SA-001	Replaced with current standard.
				1016SA-002	Replaced with current standard.

MSFC - Form 3461-1 (Rev. September 2007)

1.0 INTRODUCTION

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

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

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

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

1.2.3 Data Requirements Descriptions (DRD's)

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

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

<u>CATEGORY SYMBOL</u>	<u>DESCRIPTION</u>
CD	Contractual Data
CM	Configuration Management
LS	Logistics/Support
MA	Management
OP	Operations
QE	Quality Engineering
SA	Safety
SE	Systems Engineering
VR	Verification

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

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

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

1.2.4 Document Change Log (DCL): The Document Change Log chronologically records all revision actions that pertain to the DPD.

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

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

<u>TYPE</u>	<u>DESCRIPTION</u>
1*	All issues and interim changes to those issues require written approval from the requiring organization before formal release for use or implementation.
2*	NASA reserves a time-limited right to disapprove in writing any issues and interim changes to those issues. The contractor shall submit the required data to NASA for review not less than 45 calendar days** prior to its release for use. The contractor shall clearly identify the release target date in the "submitted for review" transmittal***. If the data is unacceptable, NASA will notify the contractor within 45 calendar days** from the date of submission, regardless of the intended release date***. The contractor shall resubmit the information for reevaluation if disapproved. The submittal is considered approved if the contractor does not receive disapproval or an extension request from NASA within 45 calendar days**.
3	These data shall be delivered by the contractor as required by the contract and do not require NASA approval. However, to be a satisfactory delivery, the data shall satisfy all applicable contractual requirements and be submitted on time.
4	These data are produced or used during performance of the contract and are retained by the contractor. They shall be delivered only when NASA requests in writing and shall be delivered in accordance with the instructions in the request. The contractor shall maintain a list of these data and shall furnish copies of the list to NASA when requested to do so.
5	These data are incidental to contract performance and are retained by the contractor in those cases where contracting parties have agreed that formal delivery is not required. However, the Contracting Officer or the Contracting Officer's Representative shall have access to and can inspect this data at its location in the contractor's or subcontractor's facilities, or in an electronic database accessible to the Government.
*	Note: Type 1 and Type 2 data may be placed under NASA configuration management control when designated by NASA. CM control requires the contractor to submit Type 1 and Type 2 data updates through Engineering Change Proposals (ECPs).
**	Note: This time limit may be tailored for individual DRD's to meet the requirements of the procuring activity.
***	Note: If the contractor does not identify a release target date or if the intended release date is shorter than 45 calendar days from the date of submission, the 45 calendar days review cycle stands (or the tailored Type 2 time limitation for the specific procurement).

2.0 STATEMENT OF GENERAL REQUIREMENTS

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

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

2.2 Subcontractor Data Requirements

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

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

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

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

2.3.2 Format

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

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

2.3.3 Data Restriction Marking

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

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

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

International Traffic in Arms Regulations (ITAR) Notice

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

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

Export Administration Regulations (EAR) Notice

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

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

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

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

If the contract contains NFS 1852.237-73, a sensitive information legend may be applicable to information delivered under this contract

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

2.3.4 Transmittal

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

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

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

- a. Transmittal memorandum that specifies the meta-data below for each data transmittal:
 1. Contract number.
 2. Data Requirements Description (DRD) number.
 3. DRD data type (specified in Item 3 on the DRD).

4. Submission date or milestone being satisfied.
 5. Document number and revision.
 6. Document title.
 7. File names of all files being delivered; file naming convention shall clearly identify the document being delivered.
 8. Distribution (as defined by the Contracting Officer's letter).
 9. Requested response date.
 10. Contractor assigned data restriction (export controlled, limited rights data, SBIR, restricted computer software, copyrighted, etc.) if not marked on data.
 11. NASA Records Retention Schedule (NRRS) number, if applicable. (See NPR 1441.1, NASA Records Retention Schedules)
- b. Printable electronic files or hardcopy data.
- 2.3.5 Electronic data deliverables should be transmitted directly to the MSFC Repository through the Digital Asset Manager web interface. Instructions for electronic data submittals can be found at http://cio.msfc.nasa.gov/repository/repository_submittal.html. Document submitters must register for a Documentum user account through the NASA Account Management System (NAMS). Computer-Aided Design (CAD) drawings shall be submitted in the original native vector, Hewlett-Packard Graphic Language (HPGL), and raster image formats.
- 2.4 **Printing:** All printing, duplicating, or binding shall be in accordance with NFS 1852.208-81, Restrictions on Printing and Duplicating. Printing of formal reports and Type 1 and 2 data in book format shall be in accordance with the following general specifications:
- a. Method of reproduction – offset/xerography.
 - b. Finished size – 8 1/2" X 11".
 - c. Paper – 20-pound opaque bond.
 - d. Cover – Litho cover stock.
 - e. Pages shall be printed on both sides; blank pages shall be avoided when possible.
 - f. Oversize pages shall be avoided when possible, but if necessary shall be folded to 8 1/2" X 11".
 - g. Binding shall be the most economical method commensurate with the size of the report and its intended use.
- 2.5 **Contractor's Internal Documents:** The contractor's internal documents shall be used to meet the data requirements of this DPD unless a specific format is required by the applicable DRD.
- 2.6 **Document Identification:** Type 1 and 2 documents published by the contractor and submitted in response to the data requirements of this DPD shall be identified within an organized identification numbering system prescribed to NASA by the contractor and, if applicable, as approved by NASA. For all data types, the document number, change legend, date, and title constitute the minimum identification of the specific document and shall appear on the cover and title page. The contract number shall also appear on the cover and title page as separate markings. The originator and organization shall be included on the title page. The document number, change legend, and date shall appear on each page of the document. In the front matter of each document, identify the DPD number and applicable DRD number(s) required for document preparation. Successive issues or revisions of documents shall be identified in the same manner as the basic issue and shall have appropriate change identification. Drawings and ECP's are excluded from the marking provisions of this paragraph. All Type 1 documentation, excluding configuration management requirements, shall be marked "PRELIMINARY PENDING NASA APPROVAL," and once approved shall be reissued with "APPROVED BY NASA" and the date and approval authority annotated on the cover.
- 2.7 **Reference to Other Documents and Data Deliverables in Data Submittals:** All referenced documents shall be made readily available to the cognizant NASA organization upon request. The contractor should make sure that the references are available to NASA in a manner which does not incur delays in the use of the response document. Reference may be made, within one data submittal, to other data submittals delivered in response to this DPD in those cases where the data required by one DRD may have been delivered by the contractor in response to another DRD. The reference to previously-submitted data shall include the applicable DRD number, data submittal version date, and location within the referenced document.

2.8 Maintenance of Type 1 Document Submittals

- 2.8.1 Revisions of Type 1 documentation may be accomplished either by individual page revision or by a complete reissue of the document identified in accordance with requirements of 2.7 above, with the exception of drawings (which shall be revised in accordance with contract configuration management requirements).
- 2.8.2 Individual page revisions shall be made as deemed necessary by the contractor or as directed by the Contracting Officer.
- 2.8.3 A Type 1 document shall be completely reissued when, in the opinion of the contractor and/or NASA, the document has been revised to the extent that it is unusable in its present state, or when directed by the Contracting Officer. When complete reissues are made, the entire contents of the document shall be brought up to date and shall incorporate revised pages. All revisions shall be recorded. A revision log shall identify complete reissues except for periodic reports and documents which are complete within themselves as final.
- 2.8.4 Changes of a minor nature to correct obvious typing errors, misspelled words, etc., shall only be made when a technical change is made, unless the accuracy of the document is affected.
- 2.8.5 All revised pages shall be identified by a revision symbol and a new date. Each document shall contain a log of revised pages that identify the revision status of each page with the revision symbol. This list shall follow the table of contents in each document. The line or lines revised on a given page shall be designated by the use of vertical line in the margin of the page, and the change authority shall be indicated adjacent to the change.
- 2.8.6 Contractor Type 1 documents shall not be submitted containing pen and ink markups which correct, add to, or change the text, unless schedule problems exist and approval is obtained in writing from the Contracting Officer. Such markups, however, shall not exceed 20 percent of the page content and shall be acceptable provided that the reproduced copies are legible. In addition, hand-drawn schematics, block diagrams, data curves, and similar charts may be used in original reports in lieu of formally prepared art work, as long as legibility of copies is not impaired. Acceptability shall be determined by the Contracting Officer.

3.0 DPD MAINTENANCE PROCEDURES

- 3.1 NASA-Initiated Change: New and/or revised data requirements shall be incorporated by contract modification to which the new or revised portion of the DPD shall be appended. The contractor shall notify the Contracting Officer in the event a deliverable data requirement is imposed and is not covered by a DRD, or when a DRD is changed by a contract modification and for which no revision to DPD is appended. In such cases, the contractor shall submit the requested changes to NASA for approval. See paragraph 3.3.1 for change procedures.
- 3.2 Contractor-Initiated Change: Contractor-proposed data requirements or proposed changes to existing requirements shall be submitted to NASA for approval.
- 3.3 DPD Change Procedures
- 3.3.1 Changes to a contractual issue of this DPD shall be identified by NASA on the Document Change Log.
- 3.3.2 The date of the DPD shall be entered under the "as of" block of the Document Change Log. The date that was in the "as of" block shall be entered in the "Superseding" block.
- 3.3.3 The Document Change Log entitled "Incorporated Revisions" shall be changed to indicate the modification number, portions affected, and remarks. All changes to the DPD/DRDs shall be identified in the "Remarks" column.

3.4 DPD Reissues

3.4.1 The DPD shall be reissued by NASA for each contract modification that affects the DPD and shall supersede the existing DPD in its entirety. Reissues shall be issued by contractual direction. The issue symbol, which shall commence with "A" and progress through "Z," shall be entered in the DPD identification block of each DRD page of the DPD.

HUNTSVILLE OPERATIONS SUPPORT CENTER (HOSC)
Data Requirements List

<u>DRD</u>	<u>DATA TYPE</u>	<u>TITLE</u>	<u>OPR</u>
CD - Contractual Data			
1016CD-001	2	Information Technology Security Plan(s)	IS10
1016CD-002	3	On-site Employee Location List	PS10
1016CD-003	3	Technology Reports	ED03
CM - Configuration Management			
1016CM-001	1	Configuration Management Plan	ED03/EO02
LS - Logistics Support			
1016LS-001	2	Government Property Management Plan	AS41
MA - Management			
1016MA-001	1	Management Plan	EO02
1016MA-002	3	Financial Management Report (533M)	CS40
1016MA-003	3	Monthly Progress Report	EO02
1016MA-004	2	Work Breakdown Structure (WBS) and WBS Dictionary	CS40/QD02
1016MA-005	3	IT Security Status Report	EO02
1016MA-006	3	Systems Status Monthly Report	EO02
1016MA-007	3	HOSC Software Release Quarterly Report	EO02
1016MA-008	3	Performance Requirements Summary	EO02
1016MA-009	2	Organizational Conflict of Interest (OCI) Avoidance Plan	PS22
1016MA-010	3	Badged Employee and Remote IT User Listing	AS50
1016MA-011	3	Contractor Employee Clearance Document	AS50
1016MA-012	3	Position Risk Designation Form for Non-NASA Employee Form	AS50
OP - Operations			
1016OP-001	2	Operations/Maintenance Plan	EO02
QE - Quality Engineering			
1016QE-001	1	Software Quality Assurance Plan	QD40
SA - Safety			
1016SA-001	1	Safety, Health and Environmental (SHE) Plan	AS10/QD12
1016SA-002	3	Mishap and Safety Statistics Reports	QD12
SE - System Engineering			
1016SE-001	2	System Development Plan	EO02
VR - Verification			
1016VR-001	2	Verification Plan	EO02

DRD Continuation Sheet

TITLE: Technology Reports

DRD NO.: 1016CD-003

DATA TYPE: 3

PAGE: 2/3

15. DATA PREPARATION INFORMATION (CONTINUED):

5. Employer status (e.g., Government, college or university, non-profit organization, small business firm, large entity).
 6. Origin (e.g., NASA grant number, NASA prime contract number, subcontractor, joint effort, multiple contractor contribution, other).
 7. NASA Contracting Officer's Technical Representative (COTR).
 8. Contractor/grantee New Technology Representative.
 9. Brief abstract providing a general description of the innovation:
 - (a) Description of the problem or objective that motivated the innovation's development.
 - (b) Technically complete and easily understandable description of innovation developed to solve or meet the objective.
 - (c) Unique or novel features of the innovation and the results or benefits of its application.
 - (d) Speculation regarding potential commercial applications and points of contact (including names of companies producing or using similar products).
 10. Additional documentation.
 11. Degree of technological significance (e.g., modification of existing technology, substantial advancement in the art, major breakthrough).
 12. State of development (e.g., concept only, design, prototype, modification, production model, used in current work).
 13. Patent status.
 14. Dates or approximate time period during which this innovation was developed.
 15. Previous or contemplated publication or public disclosure including dates.
 16. Answers to the following questions (for software only):
 - (a) Using outsiders to beta-test code? If yes, done under beta-test agreement?
 - (b) Modifications to this software continue by civil servant and/or contractual agreement?
 - (c) Previously copyrighted (if so, by whom?)?
 - (d) Were prior versions distributed (if yes, supply NASA or Contractor contract)?
 - (e) Contains or is based on code owned by a non-federal entity (if yes, has a license for use been obtained?)?
 - (f) Has the latest version been distributed without restrictions as to use or disclosure for more than one year (if yes, supply date of disclosure)?
 17. Name(s) and signature(s) of innovator(s).
- b. Interim NASA-MSFC Technology Report: This report shall consist of a complete listing of subject inventions for the previous 12-month period or certify that there are none. Completion of MSFC Form 4204 will satisfy this reporting requirement. Use of the form is preferred; however an alternate format is acceptable provided all required information is provided.
 - c. Final NASA-MSFC Technology Report: This report shall consist of a comprehensive list of all subject inventions for the duration of the contract or certification that there are none. Completion of MSFC Form 4204 will satisfy this reporting requirement. Use of the form is preferred; however an alternate format is acceptable provided all required information is provided.
 - d. Report on utilization of subject inventions: This report provides information on the utilization of a subject invention or on efforts at obtaining such utilization that are being made by the contractor or its licensees or assignees. Per FAR 52.227-11, this report shall include information regarding the status of development, date of first commercial sale or use, gross royalties received by the contractor, and other data requested by the Contracting Officer.

DRD Continuation Sheet

TITLE: Technology Reports

DRD NO.: 1016CD-003

DATA TYPE: 3

PAGE: 3/3

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

- 15.4 **FORMAT:** The Disclosure of Invention and New Technology (Including Software) report may use NASA Form 1679 (February 1998) or provide sufficient information to meet the reporting requirement.

The interim and final NASA-MSFC Technology Reports may use MSFC Form 4204 (February 1993) or provide sufficient information to meet the reporting requirement.

Referenced forms may be obtained from the Contracting Officer or New Technology Representative.

- 15.5 **MAINTENANCE:** None required

DATA REQUIREMENTS DESCRIPTION (DRD)

- | | | |
|-------------------------|-------------------|--------------------------------------|
| 1. DPD NO.: 1016 | ISSUE: Revision E | 2. DRD NO.: 1016CM-001 |
| 3. DATA TYPE: 1 | | 4. DATE REVISED: 01-01-09 |
| | | 5. PAGE: 1/1 |
6. **TITLE:** Configuration Management Plan
7. **DESCRIPTION/USE:** To describe the contractor's method for accomplishing the configuration management requirements of the contract using the existing configuration management system as a baseline.
8. **OPR:** ED03/EO02 9. **DM:** EO02
10. **DISTRIBUTION:** Per Contracting Officer's letter
11. **INITIAL SUBMISSION:** 60 days after Authority to Proceed (ATP)
12. **SUBMISSION FREQUENCY:** One time, revise as required
13. **REMARKS:**
14. **INTERRELATIONSHIP:** PWS paragraph 2.9
15. **DATA PREPARATION INFORMATION:**
- 15.1 **SCOPE:** The Configuration Management Plan (CMP) provides the contractor's proposed management approach for implementation of configuration management.
- 15.2 **APPLICABLE DOCUMENTS:**
 EO-PLAN-002 *MOL Configuration Management Plan*
- 15.3 **CONTENTS:** The plan shall describe the contractors approach to the Configuration Management of the hardware, software, firmware and documentation to be utilized on this contract. The plan shall be compatible with MSFC-PLAN-2929, Configuration Management Plan for the Huntsville Operations Support (HOSC). The plan shall include configuration identification, interface control, change control, documentation, status accounting, and configuration verification. The plan shall include a schedule referenced to phase-in of all the major milestones needed to track implementation.
- 15.4 **FORMAT:** Contractor format is acceptable with MSFC approval.
- 15.5 **MAINTENANCE:** Changes shall be incorporated by change page or complete reissue. Update as required to maintain current with program changes.

DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.:** 1016 **ISSUE:** Revision E
2. **DRD NO.:** 1016LS-001
3. **DATA TYPE:** 2
4. **DATE REVISED:** 01-01-09
5. **PAGE:** 1/1
6. **TITLE:** Government Property Management Plan
7. **DESCRIPTION/USE:** To describe the method of controlling and managing Government property.
8. **OPR:** AS41 9. **DM:** EO02
10. **DISTRIBUTION:** Cognizant property administrator
11. **INITIAL SUBMISSION:** Preliminary with proposal. Final two months after Authority to Proceed (ATP).
12. **SUBMISSION FREQUENCY:** Revise as required
13. **REMARKS:** This document shall be the official contract requirements document for the control and identification of all Government property.
14. **INTERRELATIONSHIP:** PWS paragraph 2.4
15. **DATA PREPARATION INFORMATION:**
- 15.1 **SCOPE:** The Government Property Management Plan defines the contractor's methods of care, accounting, and control of Government property.
- 15.2 **APPLICABLE DOCUMENTS:**

FAR	<i>Federal Acquisition Regulation, Part 45</i>
FAR	<i>Federal Acquisition Regulation, Part 52.245</i>
NFS 1852-245	<i>NASA/FAR Supplement and latest revisions thereto</i>
NFS 1852.245-80	<i>NASA FAR Supplement, Government Property Management Information (PIC 07-09)</i>
NPR 5100.4B	<i>Federal Acquisition Regulation Supplement (NASA/FAR Supplement) [48 CFR 1800-1899] (REVALIDATED 9/16/2008)</i>
- 15.3 **CONTENTS:** The Government Property Management Plan shall satisfy the requirements of the documents listed in 15.2, and the contract. This plan shall consist of those procedures which constitute the contractor's property management system and shall include the following categories:

a. Property management.	i. Reports.
b. Acquisition.	j. Consumption.
c. Receiving.	k. Utilization.
d. Identification.	l. Maintenance.
e. Records.	m. Subcontractor control.
f. Movement.	n. Disposition.
g. Storage.	o. Contract close-out.
h. Physical inventories.	
- 15.4 **FORMAT:** Contractor format is acceptable.
- 15.5 **MAINTENANCE:** Changes shall be incorporated by change page or complete reissue.

DATA REQUIREMENTS DESCRIPTION (DRD)

- | | | |
|-------------------------|-------------------|--------------------------------------|
| 1. DPD NO.: 1016 | ISSUE: Revision E | 2. DRD NO.: 1016MA-001 |
| 3. DATA TYPE: 1 | | 4. DATE REVISED: 01-01-09 |
| | | 5. PAGE: 1/2 |
6. **TITLE:** Management Plan
7. **DESCRIPTION/USE:** To provide an overall description of the process and methods planned for accomplishing the Performance Work Statement.
8. **OPR:** EO02 9. **DM:** EO02
10. **DISTRIBUTION:** Per Contracting Officer's letter
11. **INITIAL SUBMISSION:** 30 days after Authority to Proceed (ATP)
12. **SUBMISSION FREQUENCY:** Update as required
13. **REMARKS:**
14. **INTERRELATIONSHIP:** PWS paragraph 2.1a
15. **DATA PREPARATION INFORMATION:**
- 15.1 **SCOPE:** The Management Plan provides the basic planning document which describes the contractor's overall plan for performing the contracted scope of work.
- 15.2 **APPLICABLE DOCUMENTS:** None
- 15.3 **CONTENTS:** The Management Plan shall provide a description of the contractor's management concepts, practices, approaches, plans, and schedules necessary for accomplishing (managing and controlling) the tasks described in the Performance Work Statement. In addition, the plan shall present those management systems to be utilized to define and delegate task assignments and shall define the organizational relationships of the contractor, subcontractors, and the Government.
- Management Overview - A brief description of the project objectives, the system to be furnished, and the equipment (systems), and software that is to be provided. Include a concise summary of the contractor's management organization responsible for performance of the contract, including interrelationships with the Work Breakdown Structure (WBS), within the company and with other contractors, and proposed relationships with the NASA project management.
- Management Systems - This plan shall briefly describe how the various management systems are to be integrated and used for the overall project management and reporting of:
- a. Project management.
 - b. Contract management.
 - c. Financial management.
 - d. Data requirements management.
 - e. Schedules (planning and control).
 - f. Performance management (cost/schedule/technical).
 - g. Configuration management.
 - h. Engineering management.
 - i. Logistics management.
 - j. Test/verification management.
 - k. Subcontractor/vendor management.
 - l. Procurement management.
 - m. Government furnished property (GFP) management.
 - n. Systems engineering management.
 - o. Safety, reliability, maintainability, quality assurance.
 - p. Automated information management systems.

DRD Continuation Sheet

TITLE: Management Plan

DRD NO.: 1016MA-001

DATA TYPE: 1

PAGE: 2/2

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

- q. Communications.
- r. Support equipment management.
- s. Spares philosophy and planning.
- t. Facilities utilization and management.
- u. Project reviews.
- v. Environmental impact management.
- w. Risk Management.

NOTE: It is not intended that this plan duplicate other plans called for in the Data Requirements List. This plan should summarize the overall project and reference or summarize other plans where appropriate and shall reference contractor internal procedures where applicable.

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

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

DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.:** 1016 **ISSUE:** Revision E
2. **DRD NO.:** 1016MA-002
3. **DATA TYPE:** 3
4. **DATE REVISED:** 01-01-09
5. **PAGE:** 1/1
6. **TITLE:** Financial Management Report (533M)
7. **DESCRIPTION/USE:** To provide monthly financial reports for monitoring program costs. The 533 reports are the official cost documents used at NASA for cost type, price re-determination, and fixed price incentive contracts.
8. **OPR:** CS40 9. **DM:** EO02
10. **DISTRIBUTION:** Per Contracting Officer's letter
11. **INITIAL SUBMISSION:** No later than 10 working days following the end of the contractor's accounting month and not more than 44 calendar days after Authority to Proceed (ATP).
12. **SUBMISSION FREQUENCY:** No later than 10 working days following the end of the contractor's accounting month
13. **REMARKS:**
14. **INTERRELATIONSHIP:** PWS paragraph 2.2
15. **DATA PREPARATION INFORMATION:**
- 15.1 **SCOPE:** The Financial Management Report provides data on accumulated costs and funding projections for management of the contract.
- 15.2 **APPLICABLE DOCUMENTS**
 NFS 1852.242-73 *NASA Contractor Financial Management Reporting, (July 1997)*
 NPR 9501.2 *NASA Contractor Financial Management Reporting*
- 15.3 **CONTENTS:** The elements of cost for financial reporting shall be mutually agreed by the contractor and NASA project office and cover labor hours by function, direct labor cost, materials, subcontracts, interdivisional work, other direct rates, overhead by pool, fringe, G&A, and fee. Changes or additions to elements of cost shall be by mutual agreement between the contractor and the NASA project manager. The data contained in the reports must be auditable using Generally Accepted Accounting Principles. The 533M Report shall include actuals and projections at the total contract level. A summary page at the contract level shall be included reflecting the cumulative since inception cost for the contract.
- 15.4 **FORMAT:** The NASA Form 533M shall be prepared per NPG 9501.2 and NFS 1852.242-73. Contractor format is acceptable provided all necessary requirements are met. Electronic submission of contractor data is required.
- 15.5 **MAINTENANCE:** None required

DATA REQUIREMENTS DESCRIPTION (DRD)

- | | | |
|-------------------------|-------------------|----------------------------------|
| 1. DPD NO.: 1016 | ISSUE: Revision E | 2. DRD NO.: 1016MA-003 |
| 3. DATA TYPE: 3 | | 4. DATE REVISED: 01-01-09 |
| | | 5. PAGE: 1/2 |
6. **TITLE:** Monthly Progress Report
7. **DESCRIPTION/USE:** To provide data for the assessment of contract progress and HOSC system performance/quality. To provide visibility to contractor and MSFC Management of actual and potential problems, and progress toward meeting the requirements of the contract.
8. **OPR:** EO02 9. **DM:** EO02
10. **DISTRIBUTION:** Per Contracting Officer's letter
11. **INITIAL SUBMISSION:** Ten calendar days following the end of the first two months after Authority to Proceed (ATP)
12. **SUBMISSION FREQUENCY:** Progress Report: Monthly, no later than the 20th day of the calendar month following the end of the accounting month. Metrics: Monthly, no later than the 10th day of the calendar month following the end of the accounting month.
13. **REMARKS:**
14. **INTERRELATIONSHIP:** PWS paragraph 2.1d, 3.0, 3.2, 3.3, 4.4.5, 4.5 and 4.6
15. **DATA PREPARATION INFORMATION:**
- 15.1 **SCOPE:** The Monthly Progress Report provides a comprehensive status on all active tasks and the necessary information to assess status and identify problems that need resolution for accomplishment of the contract tasks. The Metrics shall provide information regarding the quality and timeliness of overall HOSC systems performance and product deliveries.
- 15.2 **APPLICABLE DOCUMENTS:** None
- 15.3 **CONTENTS:** The Monthly Progress Report shall include the following:
- a. **Progress Report:**
 1. For each WBS Level II task, provide the following by facility/project:
 - (a) Narrative report of status to WBS Level III.
 - (b) Narrative report of planned effort for next reporting period.
 - (c) Schedule, showing progress of Level III elements.
 - (d) Labor expended by category.
 2. Status of significant Problem Reports, Change Requests, and other issues as appropriate, including anticipated schedule and resource impacts.
 - b. **Metrics:** The specific metrics data to be provided shall be determined by mutual agreement between the contractor and the NASA project manager. System performance/quality and product delivery metrics shall cover the following major topics:
 1. Software development and test.
 2. Problem reports.
 3. Facility outages.
 4. Help desk information.
 5. Key accomplishments and plans.

DRD Continuation Sheet

TITLE: Monthly Progress Report

DRD NO.: 1016MA-003

DATA TYPE: 3

PAGE: 2/2

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

15.4 **FORMAT:** The Monthly Progress Report shall be in report format. Submittal shall be standard hardcopy or other media as directed by the Contracting Officer. The Metrics data shall be in spreadsheet or other format, as mutually agreed to between the contractor and the NASA project manager. Electronic submittal of the Metrics data is required.

15.5 **MAINTENANCE:** None required

DATA REQUIREMENTS DESCRIPTION (DRD)

- | | | |
|-------------------------|-------------------|----------------------------------|
| 1. DPD NO.: 1016 | ISSUE: Revision E | 2. DRD NO.: 1016MA-004 |
| 3. DATA TYPE: 2 | | 4. DATE REVISED: 01-01-09 |
| | | 5. PAGE: 1/2 |
6. **TITLE:** Work Breakdown Structure (WBS) and WBS Dictionary
7. **DESCRIPTION/USE:** To establish a framework for reporting program cost, schedule, and technical performance. To provide a basis for uniform planning, reporting status, program visibility, and assignment of responsibilities.
8. **OPR:** CS40/QD02 9. **DM:** EO02
10. **DISTRIBUTION:** Per Contracting Officer's letter
11. **INITIAL SUBMISSION:** 30 days after Authority to Proceed (ATP)
12. **SUBMISSION FREQUENCY:** Update as required. Revised pages shall be submitted 10 calendar days after contract WBS changes (following Government approval).
13. **REMARKS:**
14. **INTERRELATIONSHIP:** PWS paragraph 2.2
15. **DATA PREPARATION INFORMATION:**
- 15.1 **SCOPE:** The Work Breakdown Structure (WBS) establishes a product-oriented logical subdivision of hardware, software, services, facilities, etc., that make up the total project scope of work. The WBS Dictionary provides a narrative description of the tasks and effort to be performed in each WBS element.
- 15.2 **APPLICABLE DOCUMENTS:** None
- 15.3 **CONTENTS:**
- a. The WBS index shall include:
 1. Line item number.
 2. WBS elements/tasks listed by title and indented to reflect the level (e.g., level 1 is total contract; levels 2 and following are successively lower levels).
 3. Indication of phase (i.e., research, development, test and evaluation; or production; or both) with which the WBS element is associated.
 4. Contract line item associated with the WBS element.
 5. Performance Work Statement (PWS) paragraph numbers associated with the WBS element.
 6. Specification number of the specification that covers the WBS element (if applicable). If the specification is associated with more than one WBS element, indicate the specification paragraph numbers associated with the WBS element.
 7. Contract end item number of WBS element (if applicable).
 - b. WBS Dictionary - The WBS dictionary shall describe the technical and cost content of every WBS element and efforts associated with each element (e.g., design, development, manufacturing). For WBS elements specified elsewhere for cost reporting, the WBS dictionary definitions shall also include the exact narrative of the directly associated PWS paragraphs. The WBS dictionary shall be arranged in the same order as the contract WBS index. Following the description of the WBS element shall be a listing of lower level WBS elements. The WBS dictionary shall include the following for each WBS element:
 1. WBS element title, number, and element task description.
 2. Performance measurement criteria (PMC).
 3. PWS paragraph number.

DRD Continuation Sheet**TITLE:** Work Breakdown Structure (WBS) and WBS Dictionary**DRD NO.:** 1016MA-004**DATA TYPE:** 2**PAGE:** 2/2**15. DATA PREPARATION INFORMATION (CONTINUED):**

4. Specification (number and title) associated with the WBS element.
 5. Contract line item associated with the WBS element.
 6. Date, revision number, revision authorization and approved changes.
 7. Contract end item/data item number and quantity.
 8. Cost content and description.
 9. WBS code and work order/work authorization.
 10. Technical content.
 11. System contractor.
 12. Associate or subcontractor.
 13. Applicable PWS narrative.
- 15.4 **FORMAT:** The WBS shall be in a chart format showing element relationships, arranged in the same order as the WBS provided in the Request for Proposal. The WBS Dictionary shall be ordered in consonance with the WBS index and shall reference each WBS element by its identifier and name.
- 15.5 **MAINTENANCE:** Changes shall be incorporated by change page or complete reissue.

DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.:** 1016 **ISSUE:** Revision E
2. **DRD NO.:** **1016MA-005**
3. **DATA TYPE:** 3
4. **DATE REVISED:** 01-01-09
5. **PAGE:** 1/1
6. **TITLE:** Information Technology (IT) Security Status Report
7. **DESCRIPTION/USE:** To provide metrics on the security alerts/patches and prepare a monthly summary. To provide visibility to contractor and MSFC Management of actual and potential IT Security problems and progress toward meeting the requirements of the contract.
8. **OPR:** EO02/EO60 9. **DM:** EO02
10. **DISTRIBUTION:** Per Contracting Officer's letter
11. **INITIAL SUBMISSION:** Ten calendar days following the end of the first month after Authority to Proceed (ATP)
12. **SUBMISSION FREQUENCY:** Monthly, no later than the 10th day of the calendar month following the end of the accounting month
13. **REMARKS:**
14. **INTERRELATIONSHIP:** PWS paragraph 4.4.5
15. **DATA PREPARATION INFORMATION:**
- 15.1 **SCOPE:** The IT Security Status Report shall provide the metrics necessary to ensure that the IT Security systems is being properly monitored and that all alerts are dealt with and that the patches are installed on the appropriate systems in a timely manner.
- 15.2 **APPLICABLE DOCUMENTS:**

NPR 2810.1	<i>Security of Information Technology</i>
NFS 1804.470-3	<i>Security Plan for unclassified Federal Information Technology systems</i>
NFS 1852.204-76	<i>Security Requirements for Unclassified Information Technology Resources (May 2007)</i>
- 15.3 **CONTENTS:** The IT Security Status Report shall provide metrics on the number of security alerts, the number of security patches received and installed, and the system(s) the security patch(es) were installed on for the given month and the total since ATP.
- 15.4 **FORMAT:** The IT Security Status Report shall be in presentation chart format. Submittal shall be standard hard copy or other media as directed by the Contracting Officer.
- 15.5 **MAINTENANCE:** None required

DATA REQUIREMENTS DESCRIPTION (DRD)

- | | | |
|-------------------------|-------------------|----------------------------------|
| 1. DPD NO.: 1016 | ISSUE: Revision E | 2. DRD NO.: 1016MA-007 |
| 3. DATA TYPE: 3 | | 4. DATE REVISED: 01-01-09 |
| | | 5. PAGE: 1/1 |
6. **TITLE:** HOSC Software Release Quarterly Report
7. **DESCRIPTION/USE:** To provide identification and tracking measures or metrics for HOSC Software releases. The release information, as established by NPD 2210.1, will be reported quarterly to the Software Release Authority at MSFC to enable compliance with reporting to the Director, Commercial Technology Division at NASA Headquarters.
8. **OPR:** EO02 9. **DM:** EO02
10. **DISTRIBUTION:** Per Contracting Officer's letter
11. **INITIAL SUBMISSION:** Ten calendar days following the end of the first three months after Authority To Proceed (ATP)
12. **SUBMISSION FREQUENCY:** Quarterly, no later than the 20th day of the calendar month following the end of the accounting month.
13. **REMARKS:**
14. **INTERRELATIONSHIP:** PWS paragraph 4.4.5
15. **DATA PREPARATION INFORMATION:**
- 15.1 **SCOPE:** The HOSC Software Release Quarterly Report shall provide a comprehensive status on the usage of all HOSC software releases.
- 15.2 **APPLICABLE DOCUMENTS:** None
- 15.3 **CONTENTS:** For each software product (Eg., EHS, EPC, IVoDS), provide a list of approved users, including user organization/location/etc., applicable payload/experiment, and software version.
- 15.4 **FORMAT:** The report shall be in spreadsheet format. Submittal shall be standard hard copy or other media as directed by the Contracting Officer.
- 15.5 **MAINTENANCE:** None required

DATA REQUIREMENTS DESCRIPTION (DRD)

- | | | |
|-------------------------|--------------------------|--------------------------------------|
| 1. DPD NO.: 1016 | ISSUE: Revision E | 2. DRD NO.: 1016MA-008 |
| 3. DATA TYPE: 3 | | 4. DATE REVISED: 01-01-09 |
| | | 5. PAGE: 1/1 |
6. **TITLE:** Performance Requirements Summary
7. **DESCRIPTION/USE:** To provide necessary data for the assessment of the contractor performance incentive fee criteria.
8. **OPR:** EO02/EO60 9. **DM:** EO02
10. **DISTRIBUTION:** Per Contracting Officer's letter
11. **INITIAL SUBMISSION:** Ten calendar days following the end of the first three months after Authority to Proceed (ATP)
12. **SUBMISSION FREQUENCY:** Monthly, no later than the 10th day of the calendar month following the end of the accounting month.
13. **REMARKS:**
14. **INTERRELATIONSHIP:** PWS paragraph 4.4
15. **DATA PREPARATION INFORMATION:**
- 15.1 **SCOPE:** The Performance Requirements Summary will provide metrics regarding the availability of mission critical services, to be used in the determination of the performance incentive fee.
- 15.2 **APPLICABLE DOCUMENTS:** None
- 15.3 **CONTENTS:** The Performance Requirements Summary shall include the following metrics and provide:
- a. Percentage (%) of service availability during the month, for each of the following mission services:
 1. Telemetry Processing & Distribution.
 2. Command Preparation & Execution.
 3. Provision of Operations Control Products.
 4. Voice Communication.
 - b. For each outage encountered during the month:
 1. Service affected.
 2. Duration of outage.
 3. Cause of outage.
- 15.4 **FORMAT:** The report shall be in spreadsheet format. Submittal shall be standard hard copy or other media as directed by the Contracting Officer.
- 15.5 **MAINTENANCE:** None required

DATA REQUIREMENTS DESCRIPTION (DRD)

- | | | |
|-------------------------|-------------------|--------------------------------------|
| 1. DPD NO.: 1016 | ISSUE: Revision E | 2. DRD NO.: 1016MA-009 |
| 3. DATA TYPE: 2 | | 4. PAGE REVISED: 01-01-09 |
| | | 5. PAGE: 1/2 |
6. **TITLE:** Organizational Conflict of Interest (OCI) Avoidance Plan
7. **DESCRIPTION/USE:** To demonstrate to the Government that the contractor will mitigate organizational conflicts of the interest and ensure that the contractor provides unbiased impartial advice and adequately protects sensitive, proprietary data belonging to other contractors.
8. **OPR:** PS22 9. **DM:** PS22
10. **DISTRIBUTION:** Per Contracting Officer's letter
11. **INITIAL SUBMISSION:** 10 days after contract modification 41 approval
12. **SUBMISSION FREQUENCY:** Update as required
13. **REMARKS:** Reference is made to Clauses: NFS 1809.505-4, *Obtaining Access to Sensitive Information*; NFS 1837.203-70, *Providing Contractors Access to Sensitive Information*; NFS 1837.203-71, *Release of Contractors' Sensitive Information*; 1837.203-72, *NASA Contract Clauses*; I10; 1852.237-72, *Access to Sensitive Information*; I11; 1852.237-73, *Release of Sensitive Information*.
14. **INTERRELATIONSHIP:** PWS paragraph 2.1i
15. **DATA PREPARATION INFORMATION:**
- 15.1 **SCOPE:** The Organizational Conflict of Interest Avoidance Plan demonstrates that no organizational conflict of interest exists or that any such potential conflicts have been adequately avoided or mitigated.
- 15.2 **APPLICABLE DOCUMENTS:** None
- 15.3 **CONTENTS:** The Organizational Conflict of Interest Avoidance Plan shall include the following:
- a. Organizational conflicts of interest pertaining to biased ground rules or impaired objectivity, the contractor shall order or shall either:
 1. Warrant it has no conflicting business relationships that might create a conflict with the performance work statement, or
 2. Describe all business relationships it currently has that might create a conflict with the performance work statement in this contract by demonstrating how:
 - (a) Parts of the company performing this contract shall be physically isolated from those parts of the company performing work for the conflicting business relationships.
 - (b) That the management reporting chains for between this contract and the work for its conflicting business relationship are separated from each other.
 - (c) That employees cannot transfer from the portion of the company performing this contract to the portion of the company performing the work for the conflicting business relationships.
 - (d) That each employee performing this contract signs an express, binding written agreement setting forth all responsibilities and duties to avoid organizational conflicts of interest and to protect sensitive data provided under this contract.
 - (e) That techniques are in place to ensure that the company shall not favor its conflicting business relationships and will avoid the appearance of conflicts of interest.

DRD Continuation Sheet

TITLE: Organizational Conflict of Interest (OCI) Avoidance Plan **DRD NO.:** 1016MA-009
DATA TYPE: 2 **PAGE:** 2/2

15. DATA PREPARATION INFORMATION (CONTINUED):

- b. With regard to access to nonpublic information, the mitigation plan shall contain a plan to safeguard all proprietary/sensitive data the contractor receives. This plan shall include:
 - 1. The contractor shall not disclose the proprietary/sensitive data relating to this contract.
 - 2. The contractor only shall use the proprietary/sensitive data for purposes of this contract.
 - 3. Information, whether in hard copy or on electronic media, shall be marked, handled, stored and destroyed in order to preclude an unauthorized disclosure of information.
 - 4. Information Technology shall be protected to prevent unauthorized disclosure of information.
 - 5. Employees performing the effort must sign an express binding written agreement clearly agreeing to protect sensitive data.
 - 6. Requirement that subcontractors have appropriate OCI mitigation procedures in place.
 - 7. Requirement for periodic self-audits, the results of which shall be made available to the government.
 - 8. Initial and periodic refresher OCI training for contractor personnel working on the contract.
 - 9. Describe organizational and employee sanctions for violation of the OCI contract clause or OCI Avoidance Plan provisions.
 - 10. Provisions on recording keeping requirements regarding OCI (e.g., training, written agreements). The contractor shall make these records available to and cooperate with any neutral third party the Government assigns to review adherence to their OCI mitigation plan.
 - 11. A provision requiring the contractor to report any real, apparent, or potential conflict of interests that arise to the Contracting Officer.
 - 12. A provision requiring the contractor to update the OCI Mitigation Plan upon occurrence of any event that will cause a change to the plan.
- c. The requirements of this DRD apply to each subcontractor performing work on this contract.

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

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

DATA REQUIREMENTS DESCRIPTION (DRD)

- | | | |
|-------------------------|-------------------|--------------------------------------|
| 1. DPD NO.: 1016 | ISSUE: Revision E | 2. DRD NO.: 1016MA-010 |
| 3. DATA TYPE: 3 | | 4. DATE REVISED: 01-01-09 |
| | | 5. PAGE: 1/1 |
6. **TITLE:** Badged Employee and Remote IT User Listing
7. **DESCRIPTION/USE:** To assist NASA in conducting contractor floor checks and to determine if the employees meet the minimum background investigation requirements.
8. **OPR:** AS50 9. **DM:** EO02
10. **DISTRIBUTION:** Per Contracting Officer's letter. One copy each shall go to MSFC's Protective Services Office and Facilities Planning and Business Management Office.
11. **INITIAL SUBMISSION:** No later than 10 working days after Authority to Proceed (ATP)
12. **SUBMISSION FREQUENCY:** Formal update quarterly and all submissions will be encrypted via email or on CDs as personnel changes occur to distribution. If deemed necessary by the Contracting Officer, the contractor shall submit the list at times other than stated.
13. **REMARKS:** Reference is made to Federal Acquisition Regulation (FAR) Clause, FAR 52.215-2, *Audit and Records--Negotiations* (June 1999), NPR 1600.1, *NASA Security Program Procedural Requirements*.
14. **INTERRELATIONSHIP:** PWS paragraph 2.1b
15. **DATA PREPARATION INFORMATION:**
- 15.1 **SCOPE:** The Badged Employee and Remote IT User Listing provides NASA with a list of all MSFC badged contractor employees, as well as, any contractor remote IT users who will have access to the MSFC IT system.
- 15.2 **APPLICABLE DOCUMENTS:** None
- 15.3 **CONTENTS:** The Badged Employee and Remote IT User Listing shall contain the data identified in Attachment A.
- 15.4 **FORMAT:** Contractor format shall be submitted via Attachment A.
- 15.5 **MAINTENANCE:** None required

ATTACHMENT A

COMPANY NAME:

CONTRACT NUMBER:

CONTRACT EXPIRATION DATE:

COMPANY POINT OF CONTACT:

PHONE NUMBER:

EMAIL ADDRESS:

NASA PROJECT MANAGER (SPONSOR) OR COTR:

ORGANIZATION CODE:

PHONE:

EMAIL:

LAST NAME	FIRST NAME (Given Name at Birth)	MIDDLE NAME (Given Name at Birth)	SOCIAL SECURITY NUMBER (Last 4 Digits Only)	DATE OF BIRTH	PLACE OF BIRTH (City, State)	DUTY POSITION	DUTY LOCATION (Bldg/Room)	SHIFT ASSIGNMENT	SUPERVISOR'S NAME

DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.:** 1016 **ISSUE:** Revision E
2. **DRD NO.:** **1016MA-011**
3. **DATA TYPE:** 3
4. **DATE REVISED:** 01-01-09
5. **PAGE:** 1/1
6. **TITLE:** Contractor Employee Clearance Document
7. **DESCRIPTION/USE:** To ensure that badged contractor employees who no longer require Center access properly clear all accounts when the access is no longer needed.
8. **OPR:** AS50 9. **DM:** EO02
10. **DISTRIBUTION:** Per Contracting Officer's letter
11. **INITIAL SUBMISSION:** Immediately when the access is no longer needed
12. **SUBMISSION FREQUENCY:** As required
13. **REMARKS:**
14. **INTERRELATIONSHIP:** PWS paragraph 2.1j
15. **DATA PREPARATION INFORMATION:**
- 15.1 **SCOPE:** The Contractor Employee Clearance Document provides verification that all badged employees have properly cleared all accounts when the access is no longer needed.
- 15.2 **APPLICABLE DOCUMENTS:** None
- 15.3 **CONTENTS:** The Contractor Employee Clearance Document shall contain all the information required by MSFC Form 383-1.
- 15.4 **FORMAT:** MSFC Form 383-1, "Contractor Employee Clearance Document".
- 15.5 **MAINTENANCE:** None required

DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.:** 1016 **ISSUE:** Revision E
2. **DRD NO.:** **1016MA-012**
3. **DATA TYPE:** 3
4. **DATE REVISED:** 01-01-09
5. **PAGE:** 1/1

6. **TITLE:** Position Risk Designation for Non-NASA Employee Form

7. **DESCRIPTION/USE:** To ensure that contractor employees are screened to an appropriate risk determination in accordance with NPR 1600.1, *NASA Security Program Procedural Requirements*, Chapter 4.

8. **OPR:** AS50 9. **DM:** EO02

10. **DISTRIBUTION:** Per Contracting Officer's letter. One copy shall go to MSFC Protective Services Office.

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

12. **SUBMISSION FREQUENCY:** Update as personnel or position changes occur.

13. **REMARKS:**

14. **INTERRELATIONSHIP:** PWS paragraph 2.1k

15. **DATA PREPARATION INFORMATION:**
- 15.1 **SCOPE:** The Position Risk Designation for Non-NASA Employee Form provides information necessary to determine the type of investigation required and how closely an individual is screened for a position.
- 15.2 **APPLICABLE DOCUMENTS:**
NPR 1600.1 *NASA Security Program Procedural Requirements*
- 15.3 **CONTENTS:** The Position Risk Designation for Non-NASA Employee Form shall contain all the information required by MSFC Form 4482 in accordance with NPR 1600.1, *NASA Security Program Procedural Requirements*.
- 15.4 **FORMAT:** MSFC Form 4482, "Position Risk Designation for Non-NASA Employee".
- 15.5 **MAINTENANCE:** None required

DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.:** 1016 **ISSUE:** Revision E 2. **DRD NO.:** **1016OP-001**
3. **DATA TYPE:** 2 4. **DATE REVISED:** 01-01-09
5. **PAGE:** 1/2
6. **TITLE:** Operations/Maintenance Plan
7. **DESCRIPTION/USE:** To provide the contractor and the Government a baseline document for operability/maintainability.
8. **OPR:** EO02 9. **DM:** EO02
10. **DISTRIBUTION:** Per Contracting Officer's letter
11. **INITIAL SUBMISSION:** 60 days after Authority to Proceed (ATP)
12. **SUBMISSION FREQUENCY:** Once, update as required
13. **REMARKS:**
14. **INTERRELATIONSHIP:** PWS paragraph 4.0
15. **DATA PREPARATION INFORMATION:**
- 15.1 **SCOPE:** The Operations/Maintenance Plan shall define all system operability and maintainability activities appropriate for providing the services and performing the functions set forth in the PWS.
- 15.2 **APPLICABLE DOCUMENTS:** None
- 15.3 **CONTENTS:** The Operations/Maintenance Plan shall define the ground operations and maintenance support of each facility. The plan describes organizational relationships, functional roles, responsibilities and methodologies, but does not provide specific operating procedures, capabilities or requirements. The plan shall address the overall operations and maintenance philosophy and capacities of integrated operations and peripheral support elements. The plan shall include:
 - a. Operating philosophy
 1. Organizational relationships.
 - (a) Internal and external relationships.
 - (b) Functional roles.
 - (c) Responsibilities and methodologies.
 2. Operational services.
 - (a) Standard services.
 - (b) Optional services.
 - (c) Responsiveness parameters.
 - (1) Return to service.
 - (2) Operational response time.
 3. Operational tools.
 - b. Maintenance philosophy.
 1. Availability parameters.
 - (a) Overall percentage of system availability.
 - (b) Preventive maintenance.
 - (1) Schedule for performing.
 - (2) Downtime required.
 - (3) Remedial maintenance.
 - (a) Response time.
 - (b) Meantime to repair.
 - (4) Methodology used to establish parameters.

DRD Continuation Sheet

TITLE: Operations/Maintenance Plan

DRD NO.: 1016OP-001

DATA TYPE: 2

PAGE: 2/2

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

2. Identification and analysis of risks.
 - (a) Impact of non-availability.
 - (b) Trade-offs.
3. Detailed performance approach.
 - (a) Preventive maintenance.
 - (b) Remedial maintenance.

15.4 **FORMAT:** Contractor format is acceptable.15.5 **MAINTENANCE:** Changes shall be incorporated by change page or complete reissue.

DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.:** 1016 **ISSUE:** Revision E
2. **DRD NO.:** **1016QE-001**
3. **DATA TYPE:** 1
4. **DATE REVISED:** 01-01-09
5. **PAGE:** 1/1
6. **TITLE:** Software Quality Assurance Plan
7. **DESCRIPTION/USE:** To describe the contractor's method for accomplishing the Software Quality Assurance requirements for the contract.
8. **OPR:** QD40 9. **DM:** EO02
10. **DISTRIBUTION:** Per Contracting Officer's letter
11. **INITIAL SUBMISSION:** 60 days after Authority to Proceed (ATP)
12. **SUBMISSION FREQUENCY:** Update as required
13. **REMARKS:**
14. **INTERRELATIONSHIP:** PWS paragraph 3.1.2
15. **DATA PREPARATION INFORMATION:**
- 15.1 **SCOPE:** The Software Quality Assurance Plan (SQAP) details the procedures, reviews, and audits required to accomplish Software Quality Assurance.
- 15.2 **APPLICABLE DOCUMENTS**
IEEE Std 730-1998 *IEEE Standard for Software Quality Assurance Plans*
- 15.3 **CONTENTS:** The Software Quality Assurance Plan shall provide the information defined in IEEE Std 730-1998.
- 15.4 **FORMAT:** Contractor format is acceptable.
- 15.5 **MAINTENANCE:** Changes shall be incorporated by change page or complete reissue. Update as required, to maintain current with program changes.

DATA REQUIREMENTS DESCRIPTION (DRD)

- 1. **DPD NO.:** 1016 **ISSUE:** Revision E
- 2. **DRD NO.:** 1016SA-001
- 3. **DATA TYPE:** 2
- 4. **DATE REVISED:** 01-01-09
- 5. **PAGE:** 1/5
- 6. **TITLE:** Safety, Health, and Environmental (SHE) Plan
- 7. **DESCRIPTION/USE:** A contractor generated document that describes the contractor's approach to assuring compliance with the Marshall Space Flight Center (MSFC) SHE core program requirements. The contractor's SHE Plan shall describe how the contractor will (1) prevent employee fatalities, (2) reduce the number of incidents, (3) reduce the severity of employee injuries and illnesses, and (4) protect the environment through the ongoing planning, implementation, integration and management control of the contractor's industrial safety, occupational health, and environmental program in accordance with NFS 1852.223-73.
- 8. **OPR:** AS10/QD12 9. **DM:** EO02
- 10. **DISTRIBUTION:** Per Contracting Officer's letter
- 11. **INITIAL SUBMISSION:** Preliminary with proposal
- 12. **SUBMISSION FREQUENCY:** Ten days after Authority to Proceed (ATP); update as required
- 13. **REMARKS:**
- 14. **INTERRELATIONSHIP** FAR 1852.223-70, *Safety and Health*; FAR 52.223-3, *Hazardous Material Identification and Material Safety Data*; FAR 52.23-5, *Pollution Prevention and Right-to-Know Information*, FAR 52.223-10, *Waste Reduction Program*. DRD 1016SA-002, *Mishap and Safety Statistics Report*. PWS paragraph 2.7
- 15. **DATA PREPARATION INFORMATION:**
- 15.1 **SCOPE:** The On-site Safety and Health Plan describes the contractor's method of implementing occupational safety, health, and environmental standards over the duration of the contract.
- 15. **DATA PREPARATION INFORMATION:**
- 15.1 **SCOPE:** The Safety, Health, and Environmental Plan describes the contractor's methods of planning, implementing and controlling industrial safety, occupational health, and environmental requirements to assure compliance with the MSFC SHE program over the duration of this contract.
- 15.2 **APPLICABLE DOCUMENTS:** Code of Federal Regulations (CFR) and listed consensus standards are applicable to all contracts to the extent specified in the contract. NASA and MSFC documents are applicable to all contracts performed onsite to extent specified in the contract.
 - 29 CFR Part 1903 *Inspections, Citations, and Proposed Penalties*
 - 29 CFR Part 1910 *Department of Labor; Occupational Safety and Health Administration Standards for General Industry*
 - 29 CFR Part 1926 *Department of Labor; Occupational Safety and Health Administration Standards for Construction Industry*
 - CFR Title 40 Parts 1-1068 *Protection of Environment*
 - ANSI Standards applicable to the scope of this contract
 - ASME Boiler and Pressure Vessel Code* applicable to the scope of this contract
 - NFPA Standards *National Fire Codes*
 - NASA-STD-8719.11 *Safety Standard for Fire Protection*
 - NPR 3792.1 *Plan for a Drug-Free Workplace*
 - NPR 8715.3 *NASA General Safety Program Requirements*
 - MPR 1040.3 *MSFC Emergency Plan*

DRD Continuation Sheet

TITLE: Safety, Health, and Environmental (SHE) Plan

DRD NO.: 1016SA-001

DATA TYPE: 2

PAGE: 2/4

15. DATA PREPARATION INFORMATION (CONTINUED):

- MPD 1800.1 *MSFC Smoking Policy*
- MPR 1800.1 *Bloodborne Pathogens*
- MPR 1800.2 *MSFC Ergonomics Program*
- MPR 1810.1 *MSFC Occupational Medicine*
- MPD 1840.1 *MSFC Environmental Health Program*
- MPR 1840.1 *MSFC Confined Space Entries FFFASUFF one of the FFFAFFFAF gram*
- MPR 1840.2 *MSFC Hazard Communication Program*
- MPD 1840.3 *MSFC Respiratory Protection Program*
- MPR 1840.3 *MSFC Hazardous Chemicals in Laboratories Protection Program*
- MPR 1840.4 *MSFC Asbestos Program*
- MPD 1860.1 *Laser Safety*
- MPD 1860.2 *MSFC Radiation Safety Program*
- MPR 3410.1 *Training*
- MWI 3410.1 *Personnel Certification Program*
- MPR 8500.1 *MSFC Environmental Management Program*
- MPR 8500.2 *MSFC Environmental Management System Manual*
- MWI 8621.1 *Close Call and Mishap Reporting and Investigation Program*
- MPR 8715.1 *Marshall Safety, Health and Environmental (SHE) Program*
- MWI 8715.1 *Electrical Safety*
- MWI 8715.2 *Lockout/Tagout Program*
- MWI 8715.3 *Hazard Identification & Warning System*
- MWI 8715.4 *Personal Protective Equipment (PPE)*
- MWI 8715.5 *Building Manager Program*
- MWI 8715.9 *Occupational Safety Guidelines for Contractors*
- MWI 8715.10 *Explosives, Propellants, & Pyrotechnics Program*
- MWI 8715.11 *Fire Safety Program*
- MWI 8715.12 *Safety, Health, and Environmental Finding Tracking System (SHEtrak)*
- MWI 8715.13 *Safety Concerns Reporting System (SCRS)*
- MWI 8715.15 *Ground Operations Safety Assessment & Risk Mitigation Program*
- MPD 8900.1 *Medical Operations Responsibilities for Human Space Flight Programs (NOTE: This document only applies to Space Station contracts)*

15.3 CONTENTS: The contractor's Safety, Health, and Environmental (SHE) Plan shall clearly describe their approach and methods for assuring compliance with the following MSFC SHE Core Program Requirements (CPR) and the applicable documents listed in 15.2 to the extent specified as applicable to this contracted effort.

- a. Management leadership and employee involvement:
 - 1. A description of the contractor's policy and management's commitment to (1) provide a safe and healthful workplace for personnel (i.e., employees, customers, and public), (2) protect the property and the environment, and (3) assure compliance with EPA, OSHA, NASA, MSFC MPR 8715.1 and all other MSFC SHE document requirements listed in 15.2 that are applicable to this contracted effort.
 - 2. A description of how the contractor assures managers and employees are (1) held accountable to perform their jobs/tasks in a safe and healthful manner while also protecting the environment, (2) fully understand their roles and responsibilities in the MSFC SHE Program, and (3) how the accountability, roles and responsibilities are flowed-down to all subcontractors, when applicable.
 - 3. A description of the actions taken or the disciplinary program implemented by the contractor when management or employees are discovered not complying with MSFC SHE program requirements by not performing their jobs/tasks in a safe and healthful manner or protecting the environment and how the disciplinary program or the actions taken are also flowed-down to subcontractors, when applicable.
 - 4. A description of how the contractor conducts and documents monthly SHE meetings and awareness training for employees. (NOTE: Onsite contractors shall document their SHE meetings and awareness training in the MSFC Supervisors Safety Web page (SSWP).

DRD Continuation Sheet

TITLE: Safety, Health, and Environmental (SHE) Plan

DRD NO.: 1016SA-001

DATA TYPE: 2

PAGE: 3/4

15. DATA PREPARATION INFORMATION (CONTINUED):

5. A description of how the contractor conducts and documents self evaluations of their safety, health and environmental program, and includes the frequency of these self evaluations.
 6. Provide the identification, by title, of the individual assigned by the contractor to be responsible for implementing the contractor's SHE program elements and will serve as the day-to-day SHE Point of Contact (POC) for this contracted effort.
 7. A description of how the SHE plan is maintained current with contract, NASA and MSFC requirements, reviewed and updated as necessary.
- b. System and worksite analysis:
1. A description of how the contractor assures potentially hazardous conditions are identified in the work area, assigned jobs/tasks, and operations that will be conducted by the contractor (e.g., hazard analysis, safety assessment, risk assessment and employee identified concerns).
 2. A description of how the contractor intends to comply with the MSFC SHE documented programs listed in 15.2 and any contractor documented program required by OSHA that is applicable to this contracted effort (e.g., Respiratory Protection, Hazard Communication, Confined Space, and Lockout/Tagout).
 3. A description of how each contractor supervisor conducts and documents monthly safety visits of their assigned work area in accordance with MPR 8715.1 and MWI 8715.12. (NOTE: Onsite safety visits shall be performed once per month per supervisor and documented in the MSFC SSWP.)
- c. Hazard prevention and control:
1. A description of how the contractor assures corrective actions are taken to control potentially hazardous conditions in the work area, assigned jobs/tasks, or in operations conducted by the contractor. This can include the generation of plans, procedures, and other working documents that clearly identify the hazardous conditions and the necessary cautions taken to control or remove the hazards in accordance with MWI 8715.15. (NOTE: MSFC Industrial Safety Branch concurrence is required for all onsite hazardous procedures and MSFC requires these procedures and plans to be reviewed annually.)
 2. A description of how the contractor intends to implement an emergency management program at their worksite. Include a list of contractor emergency points-of-contact that will be located onsite in accordance with MPR 1040.3.
 3. A description of how the contractor assures all mishaps and close calls are investigated to the extent necessary to determine root cause and the reporting requirements are in accordance with MWI 8621.1. (Reference DRD 1016SA-002, *Mishap and Safety Statistics Report*).
 4. A description of the contractor's policy to conduct post-accident drug and alcohol testing when the initial mishap investigation provides reason to believe an employee's actions or failure to perform a required action is suspected of having caused or contributed to a mishap in accordance with NPR 3792.1, "Plan for Drug-Free Workplace." NOTE: In the event a mishap results in a fatality or serious injury requiring immediate hospitalization, or substantial damage to property estimated to exceed \$10,000 post-accident drug and alcohol testing can be required and the results of these tests shall be provided to the MSFC Contracting Officer.
 5. A description of how the contractor intends to provide safety, health, and environmental services applicable to this contracted effort if not provided by MSFC (e.g., hazardous waste disposal, industrial hygiene monitoring, emergency medical support, hearing conservation program, respiratory protection, and hazard communication). Include a list of all services that are to be provided by MSFC for onsite work.
 6. A description of how contractor employees are trained to and given the authority to suspend work when they notice safety, health or environmental conditions that warrant such action in accordance with 29 CFR 1903 and MPR 8715.1.

DRD Continuation Sheet

TITLE: Safety, Health, and Environmental (SHE) Plan

DRD NO.: 1016SA-001

DATA TYPE: 2

PAGE: 4/4

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

- d. Safety, health and environmental training:
1. A description of how the contractor assures each contractor employee receives initial and refresher MSFC SHE training when required.
 2. A description of how the contractor assures each contractor employee is (1) trained to recognize hazards, (2) avoid accidents, (3) know the hazards specific to their job, and (4) fully understands the contractor's disciplinary program in accordance with 29 CFR Part 1903, MPR 3410.1, and MPR 8715.1.
 3. A description of how the contractor assesses each job/task to assure the employee receives the training needed that is specific to the job/task the employee will be expected to perform under this contracted effort in accordance with 29 CFR Part 1910 and MPR 3410.1. (NOTE: Onsite employee training assessments shall be performed using the SHE Training Assessment located on the MSFC SSWP and documented in the MSFC SSWP.)
 4. A description of how the contractor provides and documents training for employees that are designated by the contractor as (1) competent, or (2) qualified, or (3) authorized, or (4) certified to perform operations that require job specific training in accordance with 29 CFR 1910 or 29 CFR 1926. [NOTE: This applies to job categories being performed onsite that do not require a MSFC Safety Certification per MWI 3410.1.]
 5. Provide a list of operations or job categories performed by the contractor that will require a MSFC Safety Certification under this contracted effort in accordance with MWI 3410.1, "Personnel Certification Program." (NOTE: Onsite contractor safety certifications required by MWI 3410.1 shall be tracked in the MSFC Certification Database (CERTRAK).)
- e. Environmental compliance – A description of how the contractor assures compliance with environmental laws and regulations CFR Title 40 Parts 1-1068, Alabama Department of Environmental Management (ADEM), and MPR 8500.1 for any hazardous or toxic substances that are procured, stored, issued, used, or generated under this contracted effort by:
1. Reporting hazardous and toxic substance use in accordance with MWI 8550.5.
 2. Implementing and reporting green procurements in accordance with MWI 8540.2.
 3. Reducing, reusing, and recycling of hazardous and toxic substances prior to disposal in accordance with MWI 8550.1.
 4. Minimizing stormwater pollution in accordance with MWI 8550.2.
 5. Ensuring equipment and processes permitted by applicable laws in accordance with MWI 8550.4.
 6. Disposing of solid and liquid materials as permitted by applicable laws in accordance with MWI 8550.1.

15.4 **FORMAT:** Contractor format is acceptable, but is recommended to follow the SHE CPR order listed in 15.3 or provide a Matrix that provides a link to where each MSFC SHE CPR sub-element is addressed in the contractor's SHE Plan.

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

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2193334	COMPUTER, MICRO	688.00	1GE11	DCTR
2193335	COMPUTER, MICRO	688.00	1GE11	DCTR
2193336	COMPUTER, MICRO	688.00	1GE11	DCTR
2193337	COMPUTER, MICRO	688.00	1GE11	DCTR
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2193340	COMPUTER, MICRO	688.00	1GE11	DCTR
2193341	COMPUTER, MICRO	688.00	1GE11	DCTR
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2193476	DISPLAY UNIT, DRAWER MOI	2,115.00	46011	RACKMUX
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2193478	TRANSMITTER, RECEIVER W	650.00	0GX96	1200 SERIES
2193479	TRANSMITTER, RECEIVER W	650.00	0GX96	1200 SERIES
2193480	TRANSMITTER, RECEIVER W	650.00	0GX96	1200 SERIES
2193481	TRANSMITTER, RECEIVER W	650.00	0GX96	1200 SERIES
2193482	TRANSMITTER, RECEIVER W	650.00	0GX96	1200 SERIES
2193483	TRANSMITTER, RECEIVER W	650.00	0GX96	1200 SERIES
2193484	TRANSMITTER, RECEIVER W	650.00	0GX96	1200 SERIES
2193485	TRANSMITTER, RECEIVER W	650.00	0GX96	1200 SERIES
2193486	TRANSMITTER, RECEIVER W	650.00	0GX96	1200 SERIES
2193541	SERVER, RACKMOUNT	3,499.00	SUPMI	SC942S600B
2193542	SERVER, RACKMOUNT	3,499.00	SUPMI	SC942S600B
2193543	SERVER, RACKMOUNT	3,499.00	SUPMI	SC942S600B
2193544	SERVER, RACKMOUNT	3,499.00	SUPMI	SC942S600B
2193545	SERVER, RACKMOUNT	3,499.00	SUPMI	SC942S600B
2193546	SERVER, RACKMOUNT	3,499.00	SUPMI	SC942S600B
2193557	ANALYZER, TEST SYSTEM	41,366.00	1VBX4	SMB-6000C
2193569	SWITCH, NETWORK	9,910.00	NOLND	WS-C6500

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2193816	COMPUTER, MICRO, LAPTOP	2,260.00	1GE11	PP15L	I
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2193818	COMPUTER, MICRO, LAPTOP	2,260.00	1GE11	PP15L	I
2193956	COMPUTER, MICRO	1,000.00	0G3K8	MFATX	
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2193971	COMPUTER, MICRO	1,000.00	0G3K8	MFATX	

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2193998	COMPUTER, MICRO	1,000.00	0G3K8	MFATX
2193999	COMPUTER, MICRO	1,000.00	0G3K8	MFATX
2194000	COMPUTER, MICRO	1,000.00	0G3K8	MFATX
2194001	COMPUTER, MICRO	1,000.00	0G3K8	MFATX
2194002	COMPUTER, MICRO	1,000.00	0G3K8	MFATX
2194003	COMPUTER, MICRO	1,000.00	0G3K8	MFATX
2194004	COMPUTER, MICRO	1,000.00	0G3K8	MFATX
2194005	COMPUTER, MICRO	1,000.00	0G3K8	MFATX
2194006	COMPUTER, MICRO	1,000.00	0G3K8	MFATX
2194007	COMPUTER, MICRO	1,000.00	0G3K8	MFATX
2194008	COMPUTER, MICRO	1,000.00	0G3K8	MFATX

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2194027	COMPUTER, MICRO	1,000.00	0G3K8	MFATX
2194028	COMPUTER, MICRO	1,000.00	0G3K8	MFATX
2194029	COMPUTER, MICRO	1,000.00	0G3K8	MFATX
2194030	COMPUTER, MICRO	1,000.00	0G3K8	MFATX
2194031	COMPUTER, MICRO	1,000.00	0G3K8	MFATX
2194032	COMPUTER, MICRO	1,000.00	0G3K8	MFATX
2194033	COMPUTER, MICRO	1,000.00	0G3K8	MFATX
2194034	COMPUTER, MICRO	1,000.00	0G3K8	MFATX
2194035	COMPUTER, MICRO	1,000.00	0G3K8	MFATX
2194036	COMPUTER, MICRO	1,000.00	0G3K8	MFATX
2194037	COMPUTER, MICRO	1,000.00	0G3K8	MFATX
2194038	COMPUTER, MICRO	1,000.00	0G3K8	MFATX
2194039	COMPUTER, MICRO	1,000.00	0G3K8	MFATX
2194040	COMPUTER, MICRO	1,000.00	0G3K8	MFATX
2194041	COMPUTER, MICRO	1,000.00	0G3K8	MFATX
2194042	COMPUTER, MICRO	1,000.00	0G3K8	MFATX
2194043	COMPUTER, MICRO	1,000.00	0G3K8	MFATX
2194044	COMPUTER, MICRO	1,000.00	0G3K8	MFATX
2194045	COMPUTER, MICRO	1,000.00	0G3K8	MFATX

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2194064	COMPUTER, MICRO	1,000.00	0G3K8	MFATX
2194065	COMPUTER, MICRO	1,000.00	0G3K8	MFATX
2194066	COMPUTER, MICRO	1,000.00	0G3K8	MFATX
2194067	COMPUTER, MICRO	1,000.00	0G3K8	MFATX
2194068	COMPUTER, MICRO	1,000.00	0G3K8	MFATX
2194069	COMPUTER, MICRO	1,000.00	0G3K8	MFATX
2194070	COMPUTER, MICRO	1,000.00	0G3K8	MFATX
2194071	COMPUTER, MICRO	1,000.00	0G3K8	MFATX
2194072	COMPUTER, MICRO	1,000.00	0G3K8	MFATX
2194073	COMPUTER, MICRO	1,000.00	0G3K8	MFATX
2194074	COMPUTER, MICRO	1,000.00	0G3K8	MFATX
2194075	COMPUTER, MICRO	1,000.00	0G3K8	MFATX
2194076	COMPUTER, MICRO	1,000.00	0G3K8	MFATX
2194077	COMPUTER, MICRO	1,000.00	0G3K8	MFATX
2194078	COMPUTER, MICRO	1,000.00	0G3K8	MFATX
2194079	COMPUTER, MICRO	1,000.00	0G3K8	MFATX
2194080	COMPUTER, MICRO	1,000.00	0G3K8	MFATX
2194081	COMPUTER, MICRO	1,000.00	0G3K8	MFATX
2194082	COMPUTER, MICRO	1,000.00	0G3K8	MFATX

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2194559	DISPLAY UNIT	708.00	56472	KLVS20G10
2194566	SWITCH, FIBER OPTIC	9,000.00	1TNP0	BR2802-0008
2194567	SWITCH, FIBER OPTIC	9,000.00	1TNP0	BR2802-0008
2194574	DISPLAY UNIT	668.00	049F7	214T
2194575	DISPLAY UNIT	668.00	049F7	214T
2194578	DISPLAY UNIT	668.00	049F7	214T
2194579	DISPLAY UNIT	668.00	049F7	214T
2194580	DISPLAY UNIT	668.00	049F7	214T
2194581	DISPLAY UNIT	668.00	049F7	214T
2194582	DISPLAY UNIT	668.00	049F7	214T
2194583	DISPLAY UNIT	668.00	049F7	214T
2194584	DISPLAY UNIT	668.00	049F7	214T
2194585	DISPLAY UNIT	668.00	049F7	214T
2194586	DISPLAY UNIT	668.00	049F7	214T
2194587	DISPLAY UNIT	668.00	049F7	214T
2194588	DISPLAY UNIT	668.00	049F7	214T
2194589	DISPLAY UNIT	668.00	049F7	214T
2194590	DISPLAY UNIT	668.00	049F7	214T
2194591	DISPLAY UNIT	668.00	049F7	214T

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2194612	DISPLAY UNIT	668.00	049F7	214T
2194613	DISPLAY UNIT	668.00	049F7	214T
2194614	DISPLAY UNIT	668.00	049F7	214T
2194615	DISPLAY UNIT	668.00	049F7	214T
2194616	DISPLAY UNIT	668.00	049F7	214T
2194617	DISPLAY UNIT	668.00	049F7	214T
2194618	DISPLAY UNIT	668.00	049F7	214T
2194619	DISPLAY UNIT	668.00	049F7	214T
2194620	DISPLAY UNIT	668.00	049F7	214T
2194621	DISPLAY UNIT	668.00	049F7	214T
2194622	DISPLAY UNIT	668.00	049F7	214T
2194623	DISPLAY UNIT	668.00	049F7	214T
2194624	DISPLAY UNIT	668.00	049F7	214T
2194625	DISPLAY UNIT	668.00	049F7	214T
2194626	DISPLAY UNIT	668.00	049F7	214T
2194627	DISPLAY UNIT	668.00	049F7	214T
2194628	DISPLAY UNIT	668.00	049F7	214T
2194629	DISPLAY UNIT	668.00	049F7	214T
2194630	DISPLAY UNIT	668.00	049F7	214T

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2195016	MONITOR, TELEVISION, PLAS	2,995.00	S5769	PX42M4A
2195180	COMPUTER, MICRO	1,132.00	1GE11	DCCY
2195248	COMPUTER, MICRO	1,106.00	1GE11	DCCY
2195252	COMPUTER, MICRO	800.00	1GE11	DHM
2195253	COMPUTER, MICRO	870.00	0G3K8	E-4100-C
2195297	DISPLAY UNIT	725.00	049F7	214T
2195423	DISPLAY UNIT	668.00	049F7	214T
2195545	COMPUTER, MICRO, LAPTOP	1,978.00	TOSAM	PROTE
2195546	PRINTER, ADP	1,936.00	28480	C2001A
2195580	COMPUTER, MICRO	1,104.00	28480	ET115AV
2195581	COMPUTER, MICRO	1,104.00	28480	ET115AV
2195582	COMPUTER, MICRO	1,104.00	28480	ET115AV
2195583	COMPUTER, MICRO	1,104.00	28480	ET115AV
2195584	COMPUTER, MICRO	1,104.00	28480	ET115AV
2195585	COMPUTER, MICRO	1,104.00	28480	ET115AV
2195586	COMPUTER, MICRO	1,104.00	28480	ET115AV
2195587	COMPUTER, MICRO	1,104.00	28480	ET115AV
2195588	COMPUTER, MICRO	1,104.00	28480	ET115AV
2195589	COMPUTER, MICRO	1,104.00	28480	ET115AV

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2195608	COMPUTER, MICRO	1,104.00	28480	ET115AV
2195609	COMPUTER, MICRO	1,104.00	28480	ET115AV
2195610	COMPUTER, MICRO	1,104.00	28480	ET115AV
2195611	COMPUTER, MICRO	1,104.00	28480	ET115AV
2195612	COMPUTER, MICRO	1,104.00	28480	ET115AV
2195613	COMPUTER, MICRO	1,104.00	28480	ET115AV
2195614	COMPUTER, MICRO	1,104.00	28480	ET115AV
2195615	COMPUTER, MICRO	1,104.00	28480	ET115AV
2195616	COMPUTER, MICRO	1,104.00	28480	ET115AV
2195617	COMPUTER, MICRO	1,104.00	28480	ET115AV
2195618	COMPUTER, MICRO	1,104.00	28480	ET115AV
2195619	COMPUTER, MICRO	1,104.00	28480	ET115AV
2195620	COMPUTER, MICRO	1,104.00	28480	ET115AV
2195621	COMPUTER, MICRO	1,104.00	28480	ET115AV
2195622	COMPUTER, MICRO	1,104.00	28480	ET115AV
2195623	COMPUTER, MICRO	1,104.00	28480	ET115AV
2195624	COMPUTER, MICRO	1,104.00	28480	ET115AV
2195625	COMPUTER, MICRO	1,104.00	28480	ET115AV
2195626	COMPUTER, MICRO	1,104.00	28480	ET115AV

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2195645	COMPUTER, MICRO	1,104.00	28480	ET115AV
2195646	COMPUTER, MICRO	1,104.00	28480	ET115AV
2195647	COMPUTER, MICRO	1,104.00	28480	ET115AV
2195648	COMPUTER, MICRO	1,104.00	28480	ET115AV
2195649	COMPUTER, MICRO	1,104.00	28480	ET115AV
2195650	COMPUTER, MICRO	1,104.00	28480	ET115AV
2195651	COMPUTER, MICRO	1,104.00	28480	ET115AV
2195652	COMPUTER, MICRO	1,104.00	28480	ET115AV
2195653	COMPUTER, MICRO	1,104.00	28480	ET115AV
2195654	COMPUTER, MICRO	1,104.00	28480	ET115AV
2195655	COMPUTER, MICRO	1,104.00	28480	ET115AV
2195656	COMPUTER, MICRO	1,104.00	28480	ET115AV
2195657	COMPUTER, MICRO	1,104.00	28480	ET115AV
2195658	COMPUTER, MICRO	1,104.00	28480	ET115AV
2195659	COMPUTER, MICRO	1,104.00	28480	ET115AV
2195660	COMPUTER, MICRO	1,104.00	28480	ET115AV
2195661	COMPUTER, MICRO	1,104.00	28480	ET115AV
2195662	COMPUTER, MICRO	1,104.00	28480	ET115AV
2195663	COMPUTER, MICRO	1,104.00	28480	ET115AV

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2195880	COMPUTER, MICRO	1,025.00	1GE11	DCCY
2195881	COMPUTER, MICRO	1,025.00	1GE11	DCCY
2195882	COMPUTER, MICRO	1,025.00	1GE11	DCCY
2195883	COMPUTER, MICRO	1,025.00	1GE11	DCCY
2195884	COMPUTER, MICRO	1,025.00	1GE11	DCCY
2195886	COMPUTER, MICRO	1,025.00	1GE11	DCCY
2195901	DISPLAY UNIT	614.00	0G3K8	LP2407
2195902	DISPLAY UNIT	614.00	0G3K8	LP2407
2195903	DISPLAY UNIT	614.00	0G3K8	LP2407
2195904	DISPLAY UNIT	614.00	0G3K8	LP2407
2195905	DISPLAY UNIT	614.00	0G3K8	LP2407
2195919	FRAME, MODULE	206,108.00	LA107	SFR18
2195920	FRAME, MODULE	206,108.00	LA107	SFR18
2196155	PRINTER, ADP	1,441.00	28480	Q7493A
2196281	COMPUTER, MICRO	865.00	0G3K8	E4100
2196320	MONITOR, TELEVISION, LCD	3,165.00	S4117	LC52D92U
2196321	MONITOR, TELEVISION, LCD	3,165.00	S4117	LC52D92U
2196322	MONITOR, TELEVISION, LCD	3,165.00	S4117	LC52D92U
2196337	PRINTER, ADP	699.00	25405	N31172A

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2197228	DISPLAY UNIT	550.00	58839	A1081
2197229	DISPLAY UNIT	550.00	58839	A1081
2197230	DISPLAY UNIT	550.00	58839	A1081
2510029	SERVER, RACKMOUNT	2,395.00	1GE11	POWER
2510030	SERVER, RACKMOUNT	2,395.00	1GE11	POWER
2510031	SERVER, RACKMOUNT	2,395.00	1GE11	POWER
2510037	ADAPTER, TELEPHONE	12,313.00	33875	871046003
2510053	SERVER, RACKMOUNT	5,600.00	0GX96	1130
2510062	TESTER, NETWORK	5,601.00	FLUKE	ES-EXT-KIT
2510364	SERVER, AUTOMATIC DATA	6,650.00	1GE11	EMS
2510365	SERVER, AUTOMATIC DATA	6,650.00	1GE11	EMS
2510366	SERVER, AUTOMATIC DATA F	6,650.00	1GE11	EMS
2510367	SERVER, AUTOMATIC DATA	6,650.00	1GE11	EMS
2510368	SERVER, AUTOMATIC DATA	6,650.00	1GE11	EMS
2510386	SERVER, RACKMOUNT	2,362.00	1GE11	POWER
2510387	SERVER, RACKMOUNT	6,650.00	1GE11	EMS
2510388	TEST SET, COMMUNICATION	6,075.00	06TD1	VATSBV0BAA
2510396	SERVER, RACKMOUNT	9,900.00	1EJH5	NONE
2510397	SERVER, RACKMOUNT	9,900.00	1EJH5	NONE

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2511055	COMPUTER, MICRO	1,100.00	1GE11	DCCY
2511165	CONTROLLER	7,263.00	0MJ96	DUAL 0
2545314	COMPUTER, MICRO	1,100.00	1GE11	DCCY
2545315	COMPUTER, MICRO	1,100.00	1GE11	DCCY
2545316	COMPUTER, MICRO	1,100.00	1GE11	DCCY
2545665	SERVER, RACKMOUNT	12,500.00	3VMS9	5013C |
2545666	SERVER, RACKMOUNT	12,500.00	3VMS9	5013C |
2545667	SERVER, RACKMOUNT	12,500.00	3VMS9	5013C |
2545668	MONITOR, WAVEFORM	19,229.00	S3382	LV5700A
2545670	DEMODULATOR	5,243.00	27410	DDM-840
3050003	DISPLAY UNIT	1,735.00	1L9H7	S115
3050005	SERVER, RACKMOUNT	3,796.00	1GE11	POWER
3050006	SERVER, RACKMOUNT	3,796.00	1GE11	POWER
3050007	SERVER, RACKMOUNT	3,796.00	1GE11	POWER
3050008	SERVER, RACKMOUNT	3,796.00	1GE11	POWER
3050009	SERVER, RACKMOUNT	3,796.00	1GE11	POWER
3050010	SERVER, RACKMOUNT	3,796.00	1GE11	POWER
3050021	DISPLAY UNIT	1,735.00	1F0L8	AR8215BLK
3050022	DISPLAY UNIT	1,735.00	1F0L8	AR8215BLK

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3050059	SERVER, RACKMOUNT	3,547.00	SUPMI	2.8 GHZ
3050060	SERVER, RACKMOUNT	3,547.00	SUPMI	2.8 GHZ
3050061	SERVER, RACKMOUNT	3,547.00	SUPMI	2.8 GHZ
3050062	SERVER, RACKMOUNT	3,547.00	SUPMI	2.8 GHZ
3050063	SERVER, RACKMOUNT	3,547.00	SUPMI	2.8 GHZ
3050064	SERVER, RACKMOUNT	3,547.00	SUPMI	2.8 GHZ
3050065	SERVER, RACKMOUNT	3,547.00	SUPMI	2.8 GHZ
3050066	SERVER, RACKMOUNT	3,547.00	SUPMI	2.8 GHZ
3050067	SERVER, RACKMOUNT	3,547.00	SUPMI	2.8 GHZ
3050068	SERVER, RACKMOUNT	3,547.00	SUPMI	2.8 GHZ
3050069	SERVER, RACKMOUNT	3,547.00	SUPMI	2.8 GHZ
3050070	SERVER, RACKMOUNT	3,547.00	SUPMI	2.8 GHZ
3050071	SERVER, RACKMOUNT	3,547.00	SUPMI	2.8 GHZ
3050072	SERVER, RACKMOUNT	3,547.00	SUPMI	2.8 GHZ
3050073	SERVER, RACKMOUNT	3,547.00	SUPMI	2.8 GHZ
3050074	SERVER, RACKMOUNT	3,547.00	SUPMI	2.8 GHZ
3050075	SERVER, RACKMOUNT	3,547.00	SUPMI	2.8 GHZ
3050076	SERVER, RACKMOUNT	3,547.00	SUPMI	2.8 GHZ
3050077	SERVER, RACKMOUNT	3,547.00	SUPMI	2.8 GHZ

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3050096	SERVER, RACKMOUNT	3,547.00	SUPMI	2.8 GHZ
3050097	SERVER, RACKMOUNT	3,547.00	SUPMI	2.8 GHZ
3050098	SERVER, RACKMOUNT	3,547.00	SUPMI	2.8 GHZ
3050106	SERVER, RACKMOUNT	4,930.00	1GE11	POWER
3050107	SERVER, RACKMOUNT	4,930.00	1GE11	POWER
3050128	SERVER, RACKMOUNT	4,707.00	1GE11	POWER
3050129	SERVER, RACKMOUNT	4,707.00	1GE11	POWER
3050130	SERVER, RACKMOUNT	4,377.00	1GE11	POWER
3050131	SERVER, RACKMOUNT	4,377.00	1GE11	POWER
3050132	SERVER, RACKMOUNT	3,879.00	1GE11	POWER
3050133	SERVER, RACKMOUNT	3,879.00	1GE11	POWER
3050141	DISPLAY UNIT, W/ KEYBOARD	1,713.00	06AP0	AR8215BLK
3050144	DISPLAY UNIT, W/ KEYBOARD	1,713.00	06AP0	AR8215BLK
3050145	DISPLAY UNIT, W/ KEYBOARD	1,713.00	06AP0	AR8215BLK
3050146	DISPLAY UNIT, W/ KEYBOARD	1,713.00	06AP0	AR8215BLK
3050147	DISPLAY UNIT, W/ KEYBOARD	1,713.00	06AP0	AR8215BLK
3050164	PRINTER, ADP	2,381.00	28480	4600DN
3050165	PRINTER, ADP	2,381.00	28480	4600DN
3050166	SERVER, RACKMOUNT	4,590.00	1GE11	POWER

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3050185	COMPUTER, MICRO	800.00	1GE11	DHM
3050186	COMPUTER, MICRO	800.00	1GE11	DHM
3050187	COMPUTER, MICRO	800.00	1GE11	DHM
3050188	COMPUTER, MICRO	800.00	1GE11	DHM
3050189	COMPUTER, MICRO	800.00	1GE11	DHM
3050190	COMPUTER, MICRO	800.00	1GE11	DHM
3050191	COMPUTER, MICRO	800.00	1GE11	DHM
3050193	COMPUTER, MICRO	800.00	1GE11	DHM
3050194	COMPUTER, MICRO	800.00	1GE11	DHM
3050195	COMPUTER, MICRO	800.00	1GE11	DHM
3050196	COMPUTER, MICRO	800.00	1GE11	DHM
3050197	COMPUTER, MICRO	800.00	1GE11	DHM
3050198	COMPUTER, MICRO	800.00	1GE11	DHM
3050200	COMPUTER, MICRO	800.00	1GE11	DHM
3050201	COMPUTER, MICRO	800.00	1GE11	DHM
3050202	COMPUTER, MICRO	800.00	1GE11	DHM
3050203	COMPUTER, MICRO	800.00	1GE11	DHM
3050204	COMPUTER, MICRO	800.00	1GE11	DHM
3050206	COMPUTER, MICRO	800.00	1GE11	DHM

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3050230	COMPUTER, MICRO	800.00	1GE11	DHM
3050231	COMPUTER, MICRO	800.00	1GE11	DHM
3050232	COMPUTER, MICRO	800.00	1GE11	DHM
3050233	COMPUTER, MICRO	800.00	1GE11	DHM
3050234	COMPUTER, MICRO	800.00	1GE11	DHM
3050236	COMPUTER, MICRO	800.00	1GE11	DHM
3050237	COMPUTER, MICRO	800.00	1GE11	DHM
3050238	COMPUTER, MICRO	800.00	1GE11	DHM
3050239	COMPUTER, MICRO	800.00	1GE11	DHM
3050240	COMPUTER, MICRO	800.00	1GE11	DHM
3050241	COMPUTER, MICRO	800.00	1GE11	DHM
3050242	COMPUTER, MICRO	800.00	1GE11	DHM
3050243	COMPUTER, MICRO	800.00	1GE11	DHM
3050244	COMPUTER, MICRO	800.00	1GE11	DHM
3050245	COMPUTER, MICRO	800.00	1GE11	DHM
3050246	COMPUTER, MICRO	800.00	1GE11	DHM
3050248	COMPUTER, MICRO	800.00	1GE11	DHM
3050249	COMPUTER, MICRO	800.00	1GE11	DHM
3050250	COMPUTER, MICRO	800.00	1GE11	DHM

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3050487	SERVER, RACKMOUNT	3,547.00	SUPMI	CSE-94
3050488	SERVER, RACKMOUNT	3,547.00	SUPMI	CSE-94
3050489	SERVER, RACKMOUNT	3,547.00	SUPMI	CSE-94
3050490	SERVER, RACKMOUNT	3,547.00	SUPMI	CSE-94
3050491	SERVER, RACKMOUNT	3,547.00	SUPMI	CSE-94
3050492	SERVER, RACKMOUNT	3,547.00	SUPMI	CSE-94
3050493	SERVER, RACKMOUNT	3,547.00	SUPMI	CSE-94
3050494	SERVER, RACKMOUNT	3,547.00	SUPMI	CSE-94
3050495	SERVER, RACKMOUNT	3,547.00	SUPMI	CSE-94
3050496	SERVER, RACKMOUNT	3,547.00	SUPMI	CSE-94
3050497	SERVER, RACKMOUNT	3,547.00	SUPMI	CSE-94
3050498	SERVER, RACKMOUNT	3,547.00	SUPMI	CSE-94
3050499	SERVER, RACKMOUNT	3,547.00	SUPMI	CSE-94
3050500	SERVER, RACKMOUNT	3,547.00	SUPMI	CSE-94
3050501	SERVER, RACKMOUNT	3,547.00	SUPMI	CSE-94
3050502	SERVER, RACKMOUNT	3,547.00	SUPMI	CSE-94
3050503	SERVER, RACKMOUNT	3,547.00	SUPMI	CSE-94
3050504	SERVER, RACKMOUNT	3,547.00	SUPMI	CSE-94
3050505	SERVER, RACKMOUNT	3,547.00	SUPMI	CSE-94

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3050615	COMPUTER, MICRO, LAPTOF	2,481.00	1GE11	PP02X
3050616	COMPUTER, MICRO, LAPTOF	2,481.00	1GE11	PP02X
3050617	COMPUTER, MICRO, LAPTOF	2,481.00	1GE11	PP02X
3050618	COMPUTER, MICRO, LAPTOF	2,481.00	1GE11	PP02X
3050619	COMPUTER, MICRO, LAPTOF	2,481.00	1GE11	PP02X
3050620	COMPUTER, MICRO, LAPTOF	2,536.00	1GE11	PP02X
3050621	COMPUTER, MICRO, LAPTOF	2,536.00	1GE11	PP02X
3050623	COMPUTER, MICRO, LAPTOF	2,283.00	1GE11	PP02X
3050624	COMPUTER, MICRO, LAPTOF	2,283.00	1GE11	PP02X
3050625	COMPUTER, MICRO, LAPTOF	2,283.00	1GE11	PP02X
3050626	COMPUTER, MICRO, LAPTOF	2,283.00	1GE11	PP02X
3050627	COMPUTER, MICRO, LAPTOF	2,283.00	1GE11	PP02X
3050628	COMPUTER, MICRO, LAPTOF	2,283.00	1GE11	PP02X
3050629	COMPUTER, MICRO, LAPTOF	2,283.00	1GE11	PP02X
3051627	CHASSIS, ELECTRICAL-ELEC	8,954.00	0GX96	WS-C6509
3051682	SERVER, RACKMOUNT	4,125.00	1GE11	POWER
3051683	SERVER, RACKMOUNT	4,125.00	1GE11	POWER
3051684	SERVER, RACKMOUNT	4,456.00	1GE11	POWER
3051685	PRINTER, ADP	2,261.00	26921	XER-6200

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3051881	COMPUTER, MICRO	64,628.00	TELSY	TSICP0
3051911	PRINTER, ADP	2,260.00	28480	4600DN
3051912	PRINTER, ADP	2,260.00	28480	4600DN
3051913	PRINTER, ADP	1,860.00	28480	4200TN
3051914	PRINTER, ADP	1,860.00	28480	4200TN
3051931	COMPUTER, MICRO, LAPTOP	2,904.00	1GE11	PP05L
3051932	COMPUTER, MICRO, LAPTOP	2,904.00	1GE11	PP05L
3051944	COMPUTER, MICRO	1,007.00	1GE11	GX270T
3051946	COMPUTER, MICRO	1,007.00	1GE11	GX270T
3051947	COMPUTER, MICRO	1,007.00	1GE11	GX270T
3051949	COMPUTER, MICRO	1,007.00	1GE11	GX270T
3051952	COMPUTER, MICRO	1,007.00	1GE11	GX270T
3051953	COMPUTER, MICRO	1,007.00	1GE11	GX270T
3051955	COMPUTER, MICRO	3,919.00	1GE11	PRECIS
3051956	COMPUTER, MICRO	3,919.00	1GE11	PRECIS
3051957	COMPUTER, MICRO	3,919.00	1GE11	PRECIS
3051959	COMPUTER, MICRO	64,628.00	TELSY	TSICP0
3051960	COMPUTER, MICRO	64,628.00	TELSY	TSICP0
3051962	COMPUTER, MICRO	64,628.00	TELSY	TSICP0

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3052018	SERVER, RACKMOUNT	4,425.00	SUPMI	CSE-94
3052043	SWITCH, FIBER OPTIC	9,000.00	1TNP0	DN0020073313
3052044	COMPUTER, POCKET	1,020.00	28480	5550
3052045	STORAGE, ARRAY	15,386.00	USSGI	0855
3052046	DISK ARRAY	295,785.00	1Z004	TP9500
3052192	OSCILLOSCOPE, DIGITAL	9,966.00	80009	TDS3054B
3052193	PRINTER, PLUG IN	584.00	80009	TDS3PRT
3052305	DISPLAY UNIT W/DRAWER	1,599.00	06AP0	AR8215
3052309	SWITCH, FIBER OPTIC	9,000.00	1TNP0	BR2802-0008
3052348	TRANSPORT, MAGNETIC TAP	2,119.00	28480	C1521N
3052388	TRANSPORT, MAGNETIC TAP	1,200.00	7X430	411X661A
3052395	TRANSPORT, MAGNETIC TAP	2,261.00	28480	C1559C
3052515	DISPLAY UNIT	679.00	1R9X7	LCD1850E
3052656	DISPLAY UNIT, DRAWER MODEL	1,758.00	79124	AR8215BLK
3052658	DISPLAY UNIT, DRAWER MODEL	1,758.00	79124	AR8215BLK
3052659	DISPLAY UNIT, DRAWER MODEL	1,758.00	79124	AR8215BLK
3052660	DISPLAY UNIT, DRAWER MODEL	1,758.00	79124	AR8215BLK
3052661	DISPLAY UNIT, DRAWER MODEL	1,758.00	79124	AR8215BLK
3052703	FRONT END PROCESSOR	73,528.00	08QA9	TSICP0

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3052736	COMPUTER, MICRO	870.00	0G3K8	E-4100-C
3052737	COMPUTER, MICRO	870.00	0G3K8	E-4100-C
3052738	COMPUTER, MICRO	870.00	0G3K8	E-4100-C
3052739	COMPUTER, MICRO	870.00	0G3K8	E-4100-C
3052740	COMPUTER, MICRO	870.00	0G3K8	E-4100-C
3052741	COMPUTER, MICRO	870.00	0G3K8	E-4100-C
3052742	COMPUTER, MICRO	870.00	0G3K8	E-4100-C
3052743	COMPUTER, MICRO	870.00	0G3K8	E-4100-C
3052744	COMPUTER, MICRO	870.00	0G3K8	E-4100-C
3052745	COMPUTER, MICRO	870.00	0G3K8	E-4100-C
3052746	COMPUTER, MICRO	870.00	0G3K8	E-4100-C
3052747	COMPUTER, MICRO	870.00	0G3K8	E-4100-C
3052748	COMPUTER, MICRO	870.00	0G3K8	E-4100-C
3052749	COMPUTER, MICRO	870.00	0G3K8	E-4100-C
3052750	COMPUTER, MICRO	870.00	0G3K8	E-4100-C
3052751	COMPUTER, MICRO	870.00	0G3K8	E-4100-C
3052752	COMPUTER, MICRO	870.00	0G3K8	E-4100-C
3052753	COMPUTER, MICRO	870.00	0G3K8	E-4100-C
3052754	COMPUTER, MICRO	870.00	0G3K8	E-4100-C

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3052773	COMPUTER, MICRO	870.00	0G3K8	E-4100-C
3052774	COMPUTER, MICRO	870.00	0G3K8	E-4100-C
3052776	COMPUTER, MICRO	870.00	0G3K8	E-4100-C
3052777	COMPUTER, MICRO	870.00	0G3K8	E-4100-C
3052778	COMPUTER, MICRO	870.00	0G3K8	E-4100-C
3052779	COMPUTER, MICRO	870.00	0G3K8	E-4100-C
3052780	COMPUTER, MICRO	870.00	0G3K8	E-4100-C
3052781	COMPUTER, MICRO	870.00	0G3K8	E-4100-C
3052782	COMPUTER, MICRO	870.00	0G3K8	E-4100-C
3052783	COMPUTER, MICRO	870.00	0G3K8	E-4100-C
3052784	COMPUTER, MICRO	870.00	0G3K8	E-4100-C
3052785	COMPUTER, MICRO	870.00	0G3K8	E-4100-C
3052786	COMPUTER, MICRO	870.00	0G3K8	E-4100-C
3052787	COMPUTER, MICRO	870.00	0G3K8	E-4100-C
3052788	COMPUTER, MICRO	870.00	0G3K8	E-4100-C
3052789	COMPUTER, MICRO	870.00	0G3K8	E-4100-C
3052790	COMPUTER, MICRO	870.00	0G3K8	E-4100-C
3052791	COMPUTER, MICRO	870.00	0G3K8	E-4100-C
3052792	COMPUTER, MICRO	870.00	0G3K8	E-4100-C

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3052811	COMPUTER, MICRO	870.00	0G3K8	E-4100-C
3052812	COMPUTER, MICRO	870.00	0G3K8	E-4100-C
3052813	COMPUTER, MICRO	870.00	0G3K8	E-4100-C
3052814	COMPUTER, MICRO	870.00	0G3K8	E-4100-C
3052815	COMPUTER, MICRO	870.00	0G3K8	E-4100-C
3052816	COMPUTER, MICRO	870.00	0G3K8	E-4100-C
3052817	COMPUTER, MICRO	870.00	0G3K8	E-4100-C
3052818	COMPUTER, MICRO	870.00	0G3K8	E-4100-C
3052819	COMPUTER, MICRO	870.00	0G3K8	E-4100-C
3052820	COMPUTER, MICRO	870.00	0G3K8	E-4100-C
3052821	SERVER, RACKMOUNT	3,610.00	SUPMI	CSE-94
3052822	SERVER, RACKMOUNT	3,610.00	SUPMI	CSE-94
3052823	SERVER, RACKMOUNT	3,610.00	SUPMI	CSE-94
3052824	SERVER, RACKMOUNT	3,610.00	SUPMI	CSE-94
3052825	SERVER, RACKMOUNT	3,610.00	SUPMI	CSE-94
3052826	SERVER, RACKMOUNT	3,610.00	SUPMI	CSE-94
3052827	SERVER, RACKMOUNT	3,610.00	SUPMI	CSE-94
3052828	SERVER, RACKMOUNT	3,610.00	SUPMI	CSE-94
3052829	SERVER, RACKMOUNT	3,610.00	SUPMI	CSE-94

M04AA07C

3052850	DISPLAY UNIT	567.00	0G3K8	FPD1940	|
3052852	DISPLAY UNIT	567.00	0G3K8	FPD1940	|
3052853	DISPLAY UNIT	567.00	0G3K8	FPD1940	|
3052854	DISPLAY UNIT	567.00	0G3K8	FPD1940	|
3052855	DISPLAY UNIT	567.00	0G3K8	FPD1940	|
3052856	DISPLAY UNIT	567.00	0G3K8	FPD1940	|
3052858	DISPLAY UNIT	567.00	0G3K8	FPD1940	|
3052859	DISPLAY UNIT	567.00	0G3K8	FPD1940	|
3052860	DISPLAY UNIT	567.00	0G3K8	FPD1940	|
3052861	DISPLAY UNIT	567.00	0G3K8	FPD1940	|
3052862	DISPLAY UNIT	567.00	0G3K8	FPD1940	|
3052863	DISPLAY UNIT	567.00	0G3K8	FPD1940	|
3052864	DISPLAY UNIT	567.00	0G3K8	FPD1940	|
3052865	DISPLAY UNIT	567.00	0G3K8	FPD1940	|
3052866	DISPLAY UNIT	567.00	0G3K8	FPD1940	|
3052867	DISPLAY UNIT	567.00	0G3K8	FPD1940	|
3052868	DISPLAY UNIT	567.00	0G3K8	FPD1940	|
3052869	DISPLAY UNIT	567.00	0G3K8	FPD1940	|
3052872	DISPLAY UNIT	567.00	0G3K8	FPD1940	|

M04AA07C

3052894	DISPLAY UNIT	567.00	0G3K8	FPD1940
3052895	DISPLAY UNIT	567.00	0G3K8	FPD1940
3052896	DISPLAY UNIT	567.00	0G3K8	FPD1940
3052897	DISPLAY UNIT	567.00	0G3K8	FPD1940
3052898	DISPLAY UNIT	567.00	0G3K8	FPD1940
3052899	DISPLAY UNIT	567.00	0G3K8	FPD1940
3052901	DISPLAY UNIT	567.00	0G3K8	FPD1940
3052902	DISPLAY UNIT	567.00	0G3K8	FPD1940
3052903	DISPLAY UNIT	567.00	0G3K8	FPD1940
3052904	DISPLAY UNIT	567.00	0G3K8	FPD1940
3052905	DISPLAY UNIT	567.00	0G3K8	FPD1940
3052906	DISPLAY UNIT	567.00	0G3K8	FPD1940
3052907	DISPLAY UNIT	567.00	0G3K8	FPD1940
3052908	DISPLAY UNIT	567.00	0G3K8	FPD1940
3052910	DISPLAY UNIT	567.00	0G3K8	FPD1940
3052911	DISPLAY UNIT	567.00	0G3K8	FPD1940
3052913	DISPLAY UNIT	567.00	0G3K8	FPD1940
3052914	DISPLAY UNIT	567.00	0G3K8	FPD1940
3052915	DISPLAY UNIT	567.00	0G3K8	FPD1940

M04AA07C

3052937	DISPLAY UNIT	567.00	0G3K8	FPD1940	|
3052940	DISPLAY UNIT	567.00	0G3K8	FPD1940	|
3052943	DISPLAY UNIT	567.00	0G3K8	FPD1940	|
3052944	DISPLAY UNIT	567.00	0G3K8	FPD1940	|
3052945	DISPLAY UNIT	567.00	0G3K8	FPD1940	|
3052946	DISPLAY UNIT	567.00	0G3K8	FPD1940	|
3052947	DISPLAY UNIT	567.00	0G3K8	FPD1940	|
3052948	DISPLAY UNIT	567.00	0G3K8	FPD1940	|
3052950	DISPLAY UNIT	567.00	0G3K8	FPD1940	|
3052951	DISPLAY UNIT	567.00	0G3K8	FPD1940	|
3052952	DISPLAY UNIT	567.00	0G3K8	FPD1940	|
3052953	DISPLAY UNIT	567.00	0G3K8	FPD1940	|
3052954	DISPLAY UNIT	567.00	0G3K8	FPD1940	|
3052955	DISPLAY UNIT	567.00	0G3K8	FPD1940	|
3052956	DISPLAY UNIT	567.00	0G3K8	FPD1940	|
3052957	DISPLAY UNIT	567.00	0G3K8	FPD1940	|
3052958	DISPLAY UNIT	567.00	0G3K8	FPD1940	|
3052959	DISPLAY UNIT	567.00	0G3K8	FPD1940	|
3052960	DISPLAY UNIT	567.00	0G3K8	FPD1940	|

MM04AA07C

3052980	DISPLAY UNIT	567.00	0G3K8	FPD1940	|
3052982	DISPLAY UNIT	567.00	0G3K8	FPD1940	|
3052983	DISPLAY UNIT	567.00	0G3K8	FPD1940	|
3052985	DISPLAY UNIT	567.00	0G3K8	FPD1940	|
3052986	DISPLAY UNIT	567.00	0G3K8	FPD1940	|
3052987	DISPLAY UNIT	567.00	0G3K8	FPD1940	|
3052988	DISPLAY UNIT	567.00	0G3K8	FPD1940	|
3052989	DISPLAY UNIT	567.00	0G3K8	FPD1940	|
3052990	DISPLAY UNIT	567.00	0G3K8	FPD1940	|
3052992	DISPLAY UNIT	567.00	0G3K8	FPD1940	|
3052993	DISPLAY UNIT	567.00	0G3K8	FPD1940	|
3053010	ADAPTER, TELEPHONE	8,097.00	33875	8710460004	|
3053011	DISPLAY UNIT, DRAWER MOI	2,239.00	79124	AR8215BLK	|
3053038	PRINTER, ADP	2,190.00	28480	C9661A	|
3053092	FRONT END PROCESSOR	73,528.00	08QA9	TSICPD	|
3053093	FRONT END PROCESSOR	73,528.00	08QA9	TSICPD	|
3053094	FRONT END PROCESSOR	73,528.00	08QA9	TSICPD	|
3053156	CONTROLLER, COMMUNICA	7,263.00	0MJ96	MAINFI	
3053165	STORAGE, ARRAY	2,449.00	057Y8	RM8000	

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3053313	DISPLAY UNIT	567.00	0G3K8	FPD1940	
3053314	DISPLAY UNIT	567.00	0G3K8	FPD1940	
3053316	DISPLAY UNIT	567.00	0G3K8	FPD1940	|
3053317	DISPLAY UNIT	567.00	0G3K8	FPD1940	|
3053318	DISPLAY UNIT	567.00	0G3K8	FPD1940	|
3053319	DISPLAY UNIT	567.00	0G3K8	FPD1940	|
3053320	DISPLAY UNIT	567.00	0G3K8	FPD1940	|
3053321	DISPLAY UNIT	567.00	0G3K8	FPD1940	|
3053333	COMPUTER, MICRO	641.00	1GE11	DHM	
3053334	COMPUTER, MICRO	641.00	1GE11	DHM	
3053335	COMPUTER, MICRO	641.00	1GE11	DHM	
3053336	COMPUTER, MICRO	641.00	1GE11	DHM	
3053337	COMPUTER, MICRO	641.00	1GE11	DHM	
3053338	COMPUTER, MICRO	641.00	1GE11	DHM	
3053339	COMPUTER, MICRO	641.00	1GE11	DHM	
3053376	SERVER, RACKMOUNT	4,977.00	1GE11	POWER	
3053377	SERVER, RACKMOUNT	4,977.00	1GE11	POWER	
3053378	SERVER, RACKMOUNT	3,745.00	1GE11	POWER	
3053379	SERVER, RACKMOUNT	3,745.00	1GE11	POWER	

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	DISK DRIVE UNIT, READ/WRI			
3054307		3,992.00	1Q1Q9	OMNISCSI
3054338	SERVER, RACKMOUNT	3,938.00	1GE11	POWER
3054341	SERVER, RACKMOUNT	3,938.00	1GE11	POWER
3054342	SERVER, RACKMOUNT	3,938.00	1GE11	POWER
3054343	SERVER, RACKMOUNT	3,938.00	1GE11	POWER
3054344	SERVER, RACKMOUNT	3,938.00	1GE11	POWER
3054349	SERVER, RACKMOUNT	3,938.00	1GE11	POWER
3054350	SERVER, RACKMOUNT	3,938.00	1GE11	POWER
3054351	SERVER, RACKMOUNT	3,938.00	1GE11	POWER
3054352	SERVER, RACKMOUNT	3,938.00	1GE11	POWER
3054356	PRINTER, ADP	1,522.00	28480	Q2428A
3054357	PRINTER, ADP	2,173.00	28480	Q3670A
3054359	PRINTER, ADP	2,173.00	28480	Q3670A
3054366	COMPUTER, MICRO	865.00	0G3K8	E4100
3054367	COMPUTER, MICRO	865.00	0G3K8	E4100
3054368	COMPUTER, MICRO	865.00	0G3K8	E4100
3054369	COMPUTER, MICRO	865.00	0G3K8	E4100
3054370	COMPUTER, MICRO	865.00	0G3K8	E4100
3054371	COMPUTER, MICRO	865.00	0G3K8	E4100

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3054390	COMPUTER, MICRO	865.00	0G3K8	E4100
3054391	COMPUTER, MICRO	865.00	0G3K8	E4100
3054392	COMPUTER, MICRO	865.00	0G3K8	E4100
3054393	COMPUTER, MICRO	865.00	0G3K8	E4100
3054394	COMPUTER, MICRO	865.00	0G3K8	E4100
3054395	COMPUTER, MICRO	865.00	0G3K8	E4100
3054396	COMPUTER, MICRO	865.00	0G3K8	E4100
3054397	COMPUTER, MICRO	865.00	0G3K8	E4100
3054398	COMPUTER, MICRO	865.00	0G3K8	E4100
3054399	COMPUTER, MICRO	865.00	0G3K8	E4100
3054400	COMPUTER, MICRO	865.00	0G3K8	E4100
3054401	COMPUTER, MICRO	865.00	0G3K8	E4100
3054402	COMPUTER, MICRO	865.00	0G3K8	E4100
3054403	COMPUTER, MICRO	865.00	0G3K8	E4100
3054404	COMPUTER, MICRO	865.00	0G3K8	E4100
3054405	COMPUTER, MICRO	865.00	0G3K8	E4100
3054406	COMPUTER, MICRO	865.00	0G3K8	E4100
3054407	COMPUTER, MICRO	865.00	0G3K8	E4100
3054408	COMPUTER, MICRO	865.00	0G3K8	E4100

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3054427	COMPUTER, MICRO	865.00	0G3K8	E4100
3054428	COMPUTER, MICRO	865.00	0G3K8	E4100
3054429	COMPUTER, MICRO	865.00	0G3K8	E4100
3054430	COMPUTER, MICRO	865.00	0G3K8	E4100
3054431	COMPUTER, MICRO	865.00	0G3K8	E4100
3054432	COMPUTER, MICRO	865.00	0G3K8	E4100
3054433	COMPUTER, MICRO	865.00	0G3K8	E4100
3054434	COMPUTER, MICRO	865.00	0G3K8	E4100
3054435	COMPUTER, MICRO	865.00	0G3K8	E4100
3054436	COMPUTER, MICRO	865.00	0G3K8	E4100
3054437	COMPUTER, MICRO	865.00	0G3K8	E4100
3054438	COMPUTER, MICRO	865.00	0G3K8	E4100
3054439	COMPUTER, MICRO	865.00	0G3K8	E4100
3054440	COMPUTER, MICRO	865.00	0G3K8	E4100
3054441	COMPUTER, MICRO	865.00	0G3K8	E4100
3054442	COMPUTER, MICRO	865.00	0G3K8	E4100
3054443	COMPUTER, MICRO	865.00	0G3K8	E4100
3054444	COMPUTER, MICRO	865.00	0G3K8	E4100
3054445	COMPUTER, MICRO	865.00	0G3K8	E4100

M04AA07C

3054464	COMPUTER, MICRO	865.00	0G3K8	E4100
3054465	COMPUTER, MICRO	865.00	0G3K8	E4100
3054466	COMPUTER, MICRO	865.00	0G3K8	E4100
3054467	COMPUTER, MICRO	865.00	0G3K8	E4100
3054468	COMPUTER, MICRO	865.00	0G3K8	E4100
3054469	COMPUTER, MICRO	865.00	0G3K8	E4100
3054470	COMPUTER, MICRO	865.00	0G3K8	E4100
3054471	COMPUTER, MICRO	865.00	0G3K8	E4100
3054472	COMPUTER, MICRO	865.00	0G3K8	E4100
3054473	COMPUTER, MICRO	865.00	0G3K8	E4100
3054474	COMPUTER, MICRO	865.00	0G3K8	E4100
3054475	COMPUTER, MICRO	865.00	0G3K8	E4100
3054476	COMPUTER, MICRO	865.00	0G3K8	E4100
3054477	COMPUTER, MICRO	865.00	0G3K8	E4100
3054478	COMPUTER, MICRO	865.00	0G3K8	E4100
3054479	COMPUTER, MICRO	865.00	0G3K8	E4100
3054480	COMPUTER, MICRO	865.00	0G3K8	E4100
3054481	COMPUTER, MICRO	865.00	0G3K8	E4100
3054482	COMPUTER, MICRO	865.00	0G3K8	E4100

M04AA07C

3054514	DISPLAY UNIT	525.00	0G3K8	FPD1940
3054515	DISPLAY UNIT	525.00	0G3K8	FPD1940
3054516	DISPLAY UNIT	525.00	0G3K8	FPD1940
3054517	DISPLAY UNIT	525.00	0G3K8	FPD1940
3054518	DISPLAY UNIT	525.00	0G3K8	FPD1940
3054519	DISPLAY UNIT	525.00	0G3K8	FPD1940
3054520	DISPLAY UNIT	525.00	0G3K8	FPD1940
3054521	DISPLAY UNIT	525.00	0G3K8	FPD1940
3054522	DISPLAY UNIT	525.00	0G3K8	FPD1940
3054523	DISPLAY UNIT	525.00	0G3K8	FPD1940
3054524	DISPLAY UNIT	525.00	0G3K8	FPD1940
3054525	DISPLAY UNIT	525.00	0G3K8	FPD1940
3054526	DISPLAY UNIT	525.00	0G3K8	FPD1940
3054527	DISPLAY UNIT	525.00	0G3K8	FPD1940
3054528	DISPLAY UNIT	525.00	0G3K8	FPD1940
3054529	DISPLAY UNIT	525.00	0G3K8	FPD1940
3054530	DISPLAY UNIT	525.00	0G3K8	FPD1940
3054531	DISPLAY UNIT	525.00	0G3K8	FPD1940
3054532	DISPLAY UNIT	525.00	0G3K8	FPD1940

M04AA07C

3054563	DISPLAY UNIT	525.00	0G3K8	FPD1940
3054564	DISPLAY UNIT	525.00	0G3K8	FPD1940
3054565	DISPLAY UNIT	525.00	0G3K8	FPD1940
3054566	DISPLAY UNIT	525.00	0G3K8	FPD1940
3054567	DISPLAY UNIT	525.00	0G3K8	FPD1940
3054568	DISPLAY UNIT	525.00	0G3K8	FPD1940
3054572	DISPLAY UNIT	525.00	0G3K8	FPD1940
3054573	DISPLAY UNIT	525.00	0G3K8	FPD1940
3054574	DISPLAY UNIT	525.00	0G3K8	FPD1940
3054575	DISPLAY UNIT	525.00	0G3K8	FPD1940
3054576	DISPLAY UNIT	525.00	0G3K8	FPD1940
3054577	DISPLAY UNIT	525.00	0G3K8	FPD1940
3054578	DISPLAY UNIT	525.00	0G3K8	FPD1940
3054579	DISPLAY UNIT	525.00	0G3K8	FPD1940
3054580	DISPLAY UNIT	525.00	0G3K8	FPD1940
3054581	DISPLAY UNIT	525.00	0G3K8	FPD1940
3054582	DISPLAY UNIT	525.00	0G3K8	FPD1940
3054583	DISPLAY UNIT	525.00	0G3K8	FPD1940
3054584	DISPLAY UNIT	525.00	0G3K8	FPD1940

M04AA07C

3054603	DISPLAY UNIT	525.00	0G3K8	FPD1940
3054604	DISPLAY UNIT	525.00	0G3K8	FPD1940
3054605	DISPLAY UNIT	525.00	0G3K8	FPD1940
3054606	DISPLAY UNIT	525.00	0G3K8	FPD1940
3054607	DISPLAY UNIT	525.00	0G3K8	FPD1940
3054608	DISPLAY UNIT	525.00	0G3K8	FPD1940
3054609	DISPLAY UNIT	525.00	0G3K8	FPD1940
3054610	DISPLAY UNIT	525.00	0G3K8	FPD1940
3054611	DISPLAY UNIT	525.00	0G3K8	FPD1940
3054612	DISPLAY UNIT	525.00	0G3K8	FPD1940
3054613	DISPLAY UNIT	525.00	0G3K8	FPD1940
3054614	DISPLAY UNIT	525.00	0G3K8	FPD1940
3054616	DISPLAY UNIT	525.00	0G3K8	FPD1940
3054617	DISPLAY UNIT	525.00	0G3K8	FPD1940
3054618	DISPLAY UNIT	525.00	0G3K8	FPD1940
3054619	DISPLAY UNIT	525.00	0G3K8	FPD1940
3054620	DISPLAY UNIT	525.00	0G3K8	FPD1940
3054621	DISPLAY UNIT	525.00	0G3K8	FPD1940
3054622	DISPLAY UNIT	525.00	0G3K8	FPD1940

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3054807	SERVER, RACKMOUNT	4,407.00	0T0Y9	CSE-94
3054808	SERVER, RACKMOUNT	4,407.00	0T0Y9	CSE-94
3054809	SERVER, RACKMOUNT	4,407.00	0T0Y9	CSE-94
3054810	SERVER, RACKMOUNT	4,407.00	0T0Y9	CSE-94
3054811	SERVER, RACKMOUNT	4,407.00	0T0Y9	CSE-94
3054812	SERVER, RACKMOUNT	4,407.00	0T0Y9	CSE-94
3054823	DISPLAY UNIT	6,534.00	1Z004	CPDG520K
3054898	DISPLAY UNIT, DRAWER MOI	1,718.00	1GNL0	AR8215 |
3054971	PRINTER, ADP	529.00	25405	C5150N
3054972	DISPLAY UNIT	737.00	049F7	213T |
3054973	DISPLAY UNIT	737.00	049F7	213T |
3054974	DISPLAY UNIT	737.00	049F7	213T |
3054975	DISPLAY UNIT	737.00	049F7	213T |
3054976	DISPLAY UNIT	737.00	049F7	213T |
G030945	RECORDER-REPRODUCER, '	1,650.00	S5175	AG6300
G032288	TEST SET COMPUTER	7,500.00	50666	BERTS325C
G032318	OSCILLOSCOPE	7,590.00	80009	2430A
G084556	DISPLAY UNIT	1,500.00	15476	VR290DA2
2196424	COMPUTER, MICRO	1,449.00	28480	XW6400

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2196817	COMPUTER, MICRO	1,241.00	28480	XW4600
2197016	DISPLAY UNIT, RACKMOUNT	1,645.00	0X4R9	AP5017
2197018	COMPUTER, MICRO	1,622.00	28480	XW6600
2197019	COMPUTER, MICRO	1,622.00	28480	XW6600
2197026	COMPUTER, MICRO	1,622.00	28480	XW6600
2197027	COMPUTER, MICRO	1,622.00	28480	XW6600
2197028	COMPUTER, MICRO	1,622.00	28480	XW6600
2197029	DISPLAY UNIT, RACKMOUNT	1,645.00	0X4R9	AP5017
2197030	DISPLAY UNIT, RACKMOUNT	1,645.00	0X4R9	AP5017
2197033	TELEVISION, 52 LCD	2,703.00	S4117	LC52SE94U
2197034	TELEVISION, 52 LCD	2,703.00	S4117	LC52SE94U
2197035	TELEVISION, 52 LCD	2,703.00	S4117	LC52SE94U
2197036	TELEVISION, 52 LCD	2,703.00	S4117	LC52SE94U
2197037	DISPLAY UNIT	1,645.00	0X4R9	AP5017
2197038	DISPLAY UNIT	1,645.00	0X4R9	AP5017
2197217	DISPLAY UNIT	565.00	1GE11	2408WFPB
2545582	CAMERA, DIGITAL	799.00	78774	VC-C50I
2545583	CAMERA, DIGITAL	799.00	78774	VC-C50I
2195835	SWITCH, CATALYST	6,492.00	00XT4	3750

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2197062	SWITCH, ETERNET	6,296.00	CISCO	CATALI
2197063	SWITCH, ETERNET	6,296.00	CISCO	CATALI
2197064	SWITCH, ETERNET	6,296.00	CISCO	CATALI
2197065	SWITCH, ETERNET	6,296.00	CISCO	CATALI
2510505	SWITCH, ETHERNET	6,000.00	00XT4	WS-C3550-12T
2510506	SWITCH, ETHERNET	6,000.00	00XT4	WS-C3550-12T
2510507	SWITCH, ETHERNET	6,000.00	00XT4	WS-C3550-12T
2510508	SWITCH, ETHERNET	6,000.00	00XT4	WS-C3550-12T
2510509	SWITCH, ETHERNET	6,000.00	00XT4	WS-C3550-12T
2510510	SWITCH, ETHERNET	6,000.00	00XT4	WS-C3550-12T
2510511	SWITCH, ETHERNET	6,000.00	00XT4	WS-C3550-12T
2510512	SWITCH, ETHERNET	6,000.00	00XT4	WS-C3550-12T
2510513	SWITCH, ETHERNET	6,000.00	00XT4	WS-C3550-12T
2510514	SWITCH, ETHERNET	6,000.00	00XT4	WS-C3550-12T
2511145	SWITCH, ETHERNET	9,574.00	0GX96	494810GE
2511146	SWITCH, ETHERNET	9,574.00	0GX96	494810GE
2511147	SWITCH, ETHERNET	9,574.00	0GX96	494810GE
2511148	SWITCH, ETHERNET	9,574.00	0GX96	494810GE
2511167	SWITCH, ETHERNET	9,574.00	0GX96	CATALI

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541602	CALIBRATION SYSTEM	7,220.00	52559	610
541603	DISCRIMINATOR SYSTEM	19,880.00	52559	120-02
541604	DISCRIMINATOR SYSTEM	20,371.00	52559	182-84
541612	SYNTHESIZER TRACKING	3,570.00	32102	960B
541613	DISCRIMINATOR	6,234.00	52559	120
541614	DISCRIMINATOR	6,234.00	52559	120
541615	DISCRIMINATOR	6,234.00	52559	120
541627	DECOMMUTATOR, SIGNAL	9,460.00	55744	7103-206-021
541628	DEMODULATOR	15,360.00	20747	321A-11
541629	RECORDER-REPRODUCER, :	9,036.00	06650	VR3700B
541782	GENERATOR, TIME CODE	5,842.00	31160	9310-755A
541783	CONTROL UNIT, TAPE SEARCH	5,106.00	31160	9241-229
541786	GENERATOR, TIME CODE	5,650.00	31160	9310-755
541948	SYNTHESIZER TRACKING RA	2,900.00	37102	960A
541949	SYNTHESIZER TRACKING	3,570.00	32102	960B
541984	RECORDER-REPRODUCER, :	25,380.00	06650	VR3700B
541985	RECORDER-REPRODUCER, :	20,610.00	98079	VR3700
541986	RECORDER-REPRODUCER, :	20,610.00	98079	VR3700
541992	ERASER, MAGNETIC	1,700.00	94040	TD2903-4B

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1146825	SERVER, TERMINAL	3,296.00	XYPLX	MXMAX1800E
1154241	REPEATER, ETHERNET	1,550.00	OBC68	FR3000
1219014	DISK DRIVE UNIT	21,900.00	30331	SD23X
1219295	TERMINAL, DATA PROCESSII	872.00	66566	5330
1222441	DISK DRIVE UNIT	6,495.00	0EJ63	16900
1222459	COMPUTER, MINI	23,105.00	15476	660QRB2A02
1222460	COMPUTER, MINI	23,105.00	15476	VAX400
1222462	EXPANSION UNIT	5,383.00	15476	B400X-B9-B03
1222464	EXPANSION UNIT	5,383.00	15476	B400X-B9-B03
1271176	DISCRIMINATOR	35,500.00	08539	8600AT
1279700	DISCRIMINATOR	35,500.00	08539	8600AT
1279702	DISCRIMINATOR	35,500.00	08539	8600AT
1279703	DISCRIMINATOR	35,500.00	08539	8600AT
1279872	REPEATER, ETHERNET	1,695.00	15476	DEMPRAA
1283142	DISK DRIVE UNIT	585.00	64775	RRD42DA
1283145	DISK DRIVE UNIT	585.00	64775	RRD42DA
1285507	SERVER, TERMINAL	3,296.00	XYPLX	MXMAX1800E
1286928	COMPUTER, MINI	31,500.00	7X430	1247
1396922	DISCRIMINATOR	35,500.00	08539	8600AT

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1539189	GENERATOR, TIME CODE	10,075.00	62767	4251122110
1539190	GENERATOR, TIME CODE	10,075.00	62767	4251122110
1722808	SWITCHING UNIT, ELECTROI	138,643.00	15476	DEFGA-CA
1723979	COMPUTER, MINI	93,445.00	1Z004	CMNA011
1723980	COMPUTER, MINI	93,445.00	1Z004	CMNA011
1723981	COMPUTER, MAINFRAME	407,739.00	1Z004	9470109
1723983	JUKEBOX, OPTICAL LIBRARY	52,817.00	28480	C1107B
1725072	DISPLAY UNIT	2,920.00	1Z004	GDM20E21
1726403	CHASSIS, ELECTRICAL-ELEC	33,965.00	3Y773	ODS1096
1897009	COMPUTER, MICRO, LAPTOP	2,835.00	06668	9813185-0001
1899925	DISPLAY UNIT	595.00	PHILP	PA5027C204
1899926	DISPLAY UNIT	595.00	PHILP	PA5027C204
1900968	COMPUTER, MICRO	7,228.00	1Z004	CMNB0
1900970	COMPUTER, MICRO	7,228.00	1Z004	CMNB0
1933963	JUKEBOX, OPTICAL LIBRARY	11,629.00	1Z004	8500
1963406	COMPUTER, MICRO	15,822.00	1Z004	CMNA0
1963407	COMPUTER, MICRO	15,822.00	1Z004	CMNA0
2011395	SWITCHING UNIT, ELECTROI	161,086.00	1EE69	720D001
3052426	COMPUTER, MICRO	1,008.00	0G3K8	E3200-400

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2197249	COMPUTER, MICRO	3,808.00	58839	A1186
2197250	COMPUTER, MICRO	3,808.00	58839	A1186
3051730	PROJECTOR, VIDEO	2,150.00	0RBA0	LP130
2194089	RECORDER, AUDIO	51,063.00	89178	NONE |
2194090	RECORDER, AUDIO	51,063.00	89178	NONE |
2194120	MULTIPLEXER, VIDEO	7,700.00	39941	MEGAR
2194121	MULTIPLEXER, VIDEO	7,700.00	39941	MEGAR
2194122	MULTIPLEXER, VIDEO	7,700.00	39941	MEGAR
2195254	RECORDER, DIGITAL VIDEO	4,500.00	3WST6	NONE
2545856	SERVER, RACKMOUNT	6,000.00	SUPMI	SUPER
2196783	SERVER, RACKMOUNT	3,285.00	3VMS9	NONE
2196772	COMPUTER, MICRO, LAPTOP	3,049.00	58839	A1229
2194154	COMPUTER, MICRO	794.00	1GE11	DCTR
2194155	COMPUTER, MICRO	794.00	1GE11	DCTR
2194156	COMPUTER, MICRO	794.00	1GE11	DCTR
2194190	DISPLAY UNIT	689.00	049F7	214T |
2194191	DISPLAY UNIT	689.00	049F7	214T |
2194192	DISPLAY UNIT	689.00	049F7	214T
2194193	DISPLAY UNIT	689.00	049F7	214T

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2194148	MONITOR W/KEYBOARD	1,272.00	JS023	NONE	
2196364	ENCODER	52,008.00	1GKDO	MGW5100	
2196940	PROJECTOR, VIDEO	2,939.00	3GMQ3	LC-XG250	
2196988	PROJECTOR, VIDEO	2,939.00	1V389	LC-XG250	
2197466	CAMCORDER	3,763.00	S5175	AGHMC150P	
2196035	COMPUTER, MICRO, LAPTOP	2,139.00	1GE11	PP18L	|
2194912	OPTICAL EXPANSION SYSTEM	16,049.00	MS179	NONE	
2194913	OPTICAL EXPANSION SYSTEM	16,049.00	MS179	NONE	
2194978	FILESERVER	31,750.00	1GE11	ECM	
2194979	FILESERVER	31,750.00	1GE11	ECM	
2195177	SWITCH, ETHERNET	6,600.00	0GX96	WS-C31	
2195178	SWITCH, ETHERNET	6,600.00	0GX96	WS-C31	
2195179	SWITCH, ETHERNET	6,600.00	0GX96	WS-C31	
2195841	SERVER, RACKMOUNT	3,897.00	1GE11	EMS01	
2195842	SERVER, RACKMOUNT	3,897.00	1GE11	EMS01	
2195843	SERVER, RACKMOUNT	3,897.00	1GE11	EMS01	
2195844	SERVER, RACKMOUNT	3,897.00	1GE11	EMS01	
2195845	SERVER, RACKMOUNT	3,897.00	1GE11	EMS01	
2197317	TELEVISION SET	850.00	S7022	LN32A550P3F	

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2194749	SERVER, RACKMOUNT	5,150.00	OTOY9	NONE	
2194750	SERVER, RACKMOUNT	5,150.00	OTOY9	NONE	
2194751	SERVER, RACKMOUNT	5,150.00	OTOY9	NONE	|
2194752	SERVER, RACKMOUNT	5,150.00	OTOY9	NONE	|
2194753	SERVER, RACKMOUNT	5,150.00	OTOY9	NONE	|
2194754	SERVER, RACKMOUNT	5,150.00	OTOY9	NONE	|
2194755	SERVER, RACKMOUNT	5,150.00	OTOY9	NONE	|
2194756	SERVER, RACKMOUNT	5,150.00	OTOY9	NONE	|
2194757	SERVER, RACKMOUNT	5,150.00	OTOY9	NONE	|
2195263	SERVER	3,863.00	3VMS9	NONE	|
2195264	SERVER	3,863.00	3VMS9	NONE	|
2195265	SERVER	3,863.00	3VMS9	NONE	|
2195266	SERVER	3,863.00	3VMS9	NONE	|
2196383	SERVER, RACKMOUNT	22,115.00	7X430	SUNFIREV445	|
2196914	LIBRARY, STORAGE MODUL	16,575.00	06Z21	50 SERIES	|
2196938	SERVER, RACKMOUNT	21,940.00	08KG5	SUNFIRE V445	|
2196960	SERVER, RACKMOUNT	21,940.00	0A7M7	SUNFIREV445	|
2510515	SERVER, RACKMOUNT	12,667.00	MS167	3346	
2511028	COMMUNICATION SERVER	1,425.00	USSGI	CMN026	

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2511177	SERVER, RACKMOUNT	5,140.00	SUPMI	SC8361
2511178	SERVER, RACKMOUNT	5,140.00	SUPMI	SC8361
2511179	SERVER, RACKMOUNT	5,140.00	SUPMI	SC8361
2511180	SERVER, RACKMOUNT	5,140.00	SUPMI	SC8361
2511181	SERVER, RACKMOUNT	5,140.00	SUPMI	SC8361
2511182	SERVER, RACKMOUNT	5,140.00	SUPMI	SC8361
2511183	SERVER, RACKMOUNT	5,140.00	SUPMI	SC8361
2511184	SERVER, RACKMOUNT	5,140.00	SUPMI	SC8361
2511185	SERVER, RACKMOUNT	5,140.00	SUPMI	SC8361
2511186	SERVER, RACKMOUNT	5,140.00	SUPMI	SC8361
2511187	SERVER, RACKMOUNT	5,140.00	SUPMI	SC8361
2511188	SERVER, RACKMOUNT	5,140.00	SUPMI	SC8361
2511189	SERVER, RACKMOUNT	5,140.00	SUPMI	SC8361
2511190	SERVER, RACKMOUNT	5,140.00	SUPMI	SC8361
2511191	SERVER, RACKMOUNT	5,140.00	SUPMI	SC8361
2511192	SERVER, RACKMOUNT	5,140.00	SUPMI	SC8361
2511193	SERVER, RACKMOUNT	5,140.00	SUPMI	SC8361
2511194	SERVER, RACKMOUNT	5,140.00	SUPMI	SC8361
2511195	SERVER, RACKMOUNT	5,140.00	SUPMI	SC8361

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2545850	STORAGE, ARRAY	5,899.00	057Y8	VTRAKE610F
2545881	SERVER, RACKMOUNT	7,242.00	1EJH5	CX36512
2545882	SERVER, RACKMOUNT	7,242.00	1EJH5	CX36512
2545883	SERVER, RACKMOUNT	7,242.00	1EJH5	CX36512
2545884	SERVER, RACKMOUNT	7,242.00	1EJH5	CX36512
2545885	SERVER, RACKMOUNT	7,242.00	1EJH5	CX36512
2545886	SERVER, RACKMOUNT	7,242.00	1EJH5	CX36512
2545887	SERVER, RACKMOUNT	7,242.00	1EJH5	CX36512
2545888	SERVER, RACKMOUNT	7,242.00	1EJH5	CX36512
2545889	SERVER, RACKMOUNT	7,242.00	1EJH5	CX36512
2545890	SERVER, RACKMOUNT	7,242.00	1EJH5	CX36512
2545891	SERVER, RACKMOUNT	7,242.00	1EJH5	CX36512
2545892	SERVER, RACKMOUNT	4,010.00	1EJH5	3U
2545893	SERVER, RACKMOUNT	4,010.00	1EJH5	3U
2545894	SERVER, RACKMOUNT	4,010.00	1EJH5	3U
2545895	SERVER, RACKMOUNT	4,010.00	1EJH5	3U
2545896	SERVER, RACKMOUNT	4,010.00	1EJH5	3U
2545897	SERVER, RACKMOUNT	4,010.00	1EJH5	3U
2545898	SERVER, RACKMOUNT	4,010.00	1EJH5	3U

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2545917	SERVER, RACKMOUNT	4,010.00	1EJH5	3U	
2545918	SERVER, RACKMOUNT	4,010.00	1EJH5	3U	
2545919	SERVER, RACKMOUNT	4,010.00	1EJH5	3U	|
2545920	SERVER, RACKMOUNT	4,010.00	1EJH5	3U	|
2545921	SERVER, RACKMOUNT	4,010.00	1EJH5	3U	|
2545974	STORAGE, ARRAY	17,950.00	USSGI	220BASEFCEZ	
3052135	COMPUTER, MICRO, LAPTOP	3,228.00	1GE11	PP02X	
2196033	COMPUTER, MICRO, LAPTOP	2,139.00	1GE11	PP18L	|
2196034	COMPUTER, MICRO, LAPTOP	2,139.00	1GE11	PP18L	|
2196036	COMPUTER, MICRO, LAPTOP	2,139.00	1GE11	PP18L	|
2196037	COMPUTER, MICRO, LAPTOP	2,139.00	1GE11	PP18L	|
2510517	SERVER, RACKMOUNT	4,285.00	1GE11	POWER	|
2510518	SERVER, RACKMOUNT	4,285.00	1GE11	POWER	|
2510519	SERVER, RACKMOUNT	4,285.00	1GE11	POWER	|
2510520	SERVER, RACKMOUNT	4,285.00	1GE11	POWER	|
2510521	SERVER, RACKMOUNT	4,285.00	1GE11	POWER	|
2510522	SERVER, RACKMOUNT	4,285.00	1GE11	POWER	|
2510523	SERVER, RACKMOUNT	4,285.00	1GE11	POWER	|
2510524	SERVER, RACKMOUNT	4,285.00	1GE11	POWER	|

ATTACHMENT J-6**WORK BREAKDOWN STRUCTURE (WBS)**

- 1.0 General
- 2.0 Management
 - 2.1 Contract Management
 - 2.2 Business Management
 - 2.3 Procurement
 - 2.4 Property Management and Coordination
 - 2.5 Information Technology (IT) Security and Export Control
 - 2.6 Risk Management
 - 2.7 Safety Program
 - 2.8 Quality Management
 - 2.9 Configuration Management (CM)
 - 2.9.1 Hardware Systems
 - 2.9.2 Software Systems
 - 2.9.3 Data Management
 - 2.9.4 Facilities
 - 2.10 Documentation Support
 - 2.11 Electronic and Information Technology Accessibility
 - 2.12 Training and Certification
 - 2.13 Program Vision and Leadership
 - 2.14 Emergency Preparedness and Response
- 3.0 Engineering
 - 3.1 Engineering and Integration
 - 3.1.1 System Engineering
 - 3.1.2 Software Engineering
 - 3.1.3 Hardware Engineering
 - 3.1.4 Network Engineering
 - 3.1.5 Independent Verification and Validation
 - 3.2 International Space Station (ISS) Project
 - 3.2.1 Payload control facilities
 - 3.2.2 Remote Services
 - 3.2.2.1 Telescience Resource Kit (TReK)
 - 3.2.2.2 Internet Voice Distribution System (IVoDS)
 - 3.2.3 Payload Data Services System (PDSS)
 - 3.2.3.1 PDSS Obsolescence Driven Avionics Redesign(ODAR)
 - 3.2.3.2 PDSS Sustaining Engineering
 - 3.2.4 Payload Planning System (PPS)
 - 3.2.4.1 ODAR Project Upgrades
 - 3.2.4.2 PPS Sustaining Engineering
 - 3.2.5 Enhanced HOSC System (EHS)

- 3.2.6 ISS Downlink Enhancement Architecture (IDEA)
 - 3.2.6.1 IDEA ODAR Projects Upgrades
 - 3.2.6.2 IDEA Sustaining Engineering
- 3.2.7 ECLSS and MSG/MSRRS Support
- 3.2.8 JSC Backup Support
 - 3.2.8.1 ISS Backup Control Center
 - 3.2.8.2 JSC Telescience Support Center
 - 3.2.8.3 ISS Mission Evaluations Room (MER)
- 3.3 Shuttle Project
 - 3.3.1 Shuttle Engineering Support Center (SESC)
 - 3.3.2 Data Reduction Center (DRC)
 - 3.3.3 Meteorological Interactive Data Display System (MIDDS)
- 3.4 Chandra X-Ray Observatory Project
- 3.5 Project-Independent Engineering Tasks
- 3.6 Constellation Program
 - 3.6.1 Ares Ground Systems
 - 3.6.2 Upper Stage Test Control Room
 - 3.6.3 Ares Engineering Support Function
 - 3.6.4 Ares 1-X Data Reduction
 - 3.6.5 Computing Systems Interoperability (CSI)
 - 3.6.6 Mission Systems Archive and Retrieval
- 3.7 CCSDS
- 4.0 Operations and Maintenance (O&M)
 - 4.1 Procedures Maintenance, Development and Testing
 - 4.2 Problem Management and Resolution
 - 4.3 User Support Services
 - 4.4 HOSC Mission Services
 - 4.4.1 Voice Systems
 - 4.4.2 Video Systems
 - 4.4.3 Computer Systems
 - 4.4.4 Data Storage
 - 4.4.5 System Administration and Management
 - 4.5 Ground Systems Requirements Integration
 - 4.6 Facilities
 - 4.7 International Space Station (ISS) Project
 - 4.7.1 Specific Mission Support
 - 4.7.2 POC Database Production
 - 4.7.3 Certification of Flight Readiness (CoFR)
 - 4.7.4 Payload Rack Checkout Units (PRCU) Support
 - 4.7.5 ISS Backup Control Center
 - 4.8 Shuttle Project
 - 4.8.1 Specific Mission Support
 - 4.8.2 Certification of Flight Readiness (CoFR)
 - 4.9 Constellation Program
 - 4.9.1 Ares Engineering Support Function

- 4.9.2 Ares 1-X Data Reduction
- 4.9.3 CLV Logistics Database

ATTACHMENT J-8INSTALLATION-PROVIDED PROPERTY AND SERVICES

In addition to the items specified in Clause G.6, the government will provide property, equipment, and services as available and necessary for performance pursuant to the contract Sections. The following property, equipment, and services will be available for on-site effort on a no-charge for use basis. This list may not be all-inclusive and may change depending on the Government's assessment of need.

- a. Office Space, Furniture, and Equipment
Office space, furniture, furnishing, and equipment (excluding calculators). Maintenance and repair of the building, office space, furniture, furnishing, and equipment will be provided. Building space is provided for the HOSC facilities. In addition, approximately 21,900 square feet of installation-provided office space will be available for contractor use. Of this 21,900 square feet approximately 16,200 square feet are in Building 4663 and approximately 5,700 square feet are in Building 4650.
- b. Instrumentation, Calibration and Repair, and Metrology
Calibration and Metrology services for portable, commercial test equipment.
- c. Transportation
Day shift taxi for office personnel transportation around MSFC.
- d. Reproduction – Printing
Copying machines will be provided.
- e. Fire Protection
Fire prevention and fire protection equipment and services. Mobile items, including trucks and crews, are available and will be provided as required.
- f. Security
Base security services.
- g. Medical
 - (1) Emergency first aid care and ambulance service.
 - (2) Physical examinations for certifications as required by NASA/MSFC regulations.
- h. Refuse Collection
Refuse collection.
- i. Food Service
Service will be provided during normal duty hours. In addition, snack bars and vending machines are available.

- j. Library Services
Library services as available at MSFC.
- k. Mail Service
On-post mail service will be limited to a single onsite location.
- l. Janitorial Services
Janitorial services and supplies for the Government provided facilities.
- m. Tools
Special tools and equipment, as required. Hand tools will not be Government-furnished. (Personal tools will be provided by the Contractor.)
- n. Computers/Internet
The contractor is responsible for providing administrative computers and networking, including software and services for those systems. Outsourcing Desktop Initiative (ODIN) administrative computers are not provided by the Government. Network connectivity is available.
- o. List of Installation Provided Property
A listing of Installation Accountable property for use by the contractor is provided in Attachment J-5.
All property provided and all property acquired under this contract is accountable to the installation and shall be reported IAW NASA Procedural Requirement (NPR)4200.1E-NASA Equipment Management Manual through the NASA Equipment Management System(NEMS)
- p. Telecommunications Devices
The Government anticipates no specific requirement for telecommunications devices (e.g., cellular phones, pagers, and personal data assistants) beyond that of managerial / administrative functions for normal business operations, and will not provide such devices. However, in the event telecommunications devices are required to access NASA information technology (IT) systems or services (e.g., email), those devices shall be provided by the Government after obtaining Contracting Officer and COTR approval.)

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WD 05-2008 (Rev.-9) was first posted on www.wdol.gov on 06/03/2008

REGISTER OF WAGE DETERMINATIONS UNDER THE SERVICE CONTRACT ACT		U.S. DEPARTMENT OF LABOR EMPLOYMENT STANDARDS ADMINISTRATION
By direction of the Secretary of Labor		WAGE AND HOUR DIVISION WASHINGTON D.C. 20210

Shirley F. Ebbesen Director		Wage Determination No.: 2005-2008 Revision No.: 9 Date Of Revision: 05/29/2008
Division of Wage Determinations		

States: **Alabama**, Tennessee

Area: Alabama Counties of Colbert, Franklin, Jackson, Lauderdale, Lawrence, Limestone, **Madison**, Marion, Marshall, Morgan, Winston
Tennessee Counties of Giles, Lawrence, Lincoln, Moore, Wayne

Fringe Benefits Required Follow the Occupational Listing

OCCUPATION CODE - TITLE	MINIMUM WAGE RATE
01000 - Administrative Support And Clerical Occupations	
01011 - Accounting Clerk I	13.47
01012 - Accounting Clerk II	14.65
01013 - Accounting Clerk III	16.77
01020 - Administrative Assistant	21.27
01040 - Court Reporter	17.16
01051 - Data Entry Operator I	11.95
01052 - Data Entry Operator II	13.89
01060 - Dispatcher, Motor Vehicle	16.31
01070 - Document Preparation Clerk	12.47
01090 - Duplicating Machine Operator	12.47
01111 - General Clerk I	10.80
01112 - General Clerk II	11.78
01113 - General Clerk III	13.86
01120 - Housing Referral Assistant	19.14
01141 - Messenger Courier	9.49
01191 - Order Clerk I	11.51
01192 - Order Clerk II	15.27
01261 - Personnel Assistant (Employment) I	13.69
01262 - Personnel Assistant (Employment) II	15.31
01263 - Personnel Assistant (Employment) III	17.06
01270 - Production Control Clerk	19.18
01280 - Receptionist	11.02
01290 - Rental Clerk	11.79
01300 - Scheduler, Maintenance	15.32
01311 - Secretary I	15.32
01312 - Secretary II	17.16
01313 - Secretary III	19.14
01320 - Service Order Dispatcher	13.83
01410 - Supply Technician	21.27
01420 - Survey Worker	16.81
01531 - Travel Clerk I	10.26
01532 - Travel Clerk II	10.86
01533 - Travel Clerk III	11.58
01611 - Word Processor I	13.12
01612 - Word Processor II	14.73
01613 - Word Processor III	16.48
05000 - Automotive Service Occupations	
05005 - Automobile Body Repairer, Fiberglass	17.50

05010 - Automotive Electrician	16.73
05040 - Automotive Glass Installer	15.94
05070 - Automotive Worker	15.94
05110 - Mobile Equipment Servicer	14.45
05130 - Motor Equipment Metal Mechanic	17.50
05160 - Motor Equipment Metal Worker	15.94
05190 - Motor Vehicle Mechanic	15.98
05220 - Motor Vehicle Mechanic Helper	12.52
05250 - Motor Vehicle Upholstery Worker	15.22
05280 - Motor Vehicle Wrecker	15.94
05310 - Painter, Automotive	15.28
05340 - Radiator Repair Specialist	15.94
05370 - Tire Repairer	12.75
05400 - Transmission Repair Specialist	17.50
07000 - Food Preparation And Service Occupations	
07010 - Baker	10.84
07041 - Cook I	9.14
07042 - Cook II	10.27
07070 - Dishwasher	7.57
07130 - Food Service Worker	8.09
07210 - Meat Cutter	14.21
07260 - Waiter/Waitress	6.82
09000 - Furniture Maintenance And Repair Occupations	
09010 - Electrostatic Spray Painter	17.56
09040 - Furniture Handler	13.94
09080 - Furniture Refinisher	17.56
09090 - Furniture Refinisher Helper	14.41
09110 - Furniture Repairer, Minor	15.98
09130 - Upholsterer	17.56
11000 - General Services And Support Occupations	
11030 - Cleaner, Vehicles	9.28
11060 - Elevator Operator	8.58
11090 - Gardener	12.11
11122 - Housekeeping Aide	8.62
11150 - Janitor	8.58
11210 - Laborer, Grounds Maintenance	10.00
11240 - Maid or Houseman	7.70
11260 - Pruner	9.28
11270 - Tractor Operator	12.08
11330 - Trail Maintenance Worker	10.00
11360 - Window Cleaner	9.06
12000 - Health Occupations	
12010 - Ambulance Driver	14.41
12011 - Breath Alcohol Technician	14.71
12012 - Certified Occupational Therapist Assistant	20.35
12015 - Certified Physical Therapist Assistant	20.35
12020 - Dental Assistant	13.91
12025 - Dental Hygienist	20.44
12030 - EKG Technician	23.24
12035 - Electroneurodiagnostic Technologist	23.24
12040 - Emergency Medical Technician	14.41
12071 - Licensed Practical Nurse I	14.07
12072 - Licensed Practical Nurse II	15.81
12073 - Licensed Practical Nurse III	17.71
12100 - Medical Assistant	10.79
12130 - Medical Laboratory Technician	14.02
12160 - Medical Record Clerk	11.28
12190 - Medical Record Technician	13.60
12195 - Medical Transcriptionist	12.65
12210 - Nuclear Medicine Technologist	30.65
12221 - Nursing Assistant I	9.43
12222 - Nursing Assistant II	10.61

12223 - Nursing Assistant III	11.57
12224 - Nursing Assistant IV	12.99
12235 - Optical Dispenser	13.68
12236 - Optical Technician	10.38
12250 - Pharmacy Technician	12.62
12280 - Phlebotomist	12.99
12305 - Radiologic Technologist	23.95
12311 - Registered Nurse I	22.94
12312 - Registered Nurse II	28.08
12313 - Registered Nurse II, Specialist	28.08
12314 - Registered Nurse III	33.97
12315 - Registered Nurse III, Anesthetist	33.97
12316 - Registered Nurse IV	40.70
12317 - Scheduler (Drug and Alcohol Testing)	19.01
13000 - Information And Arts Occupations	
13011 - Exhibits Specialist I	19.07
13012 - Exhibits Specialist II	23.35
13013 - Exhibits Specialist III	28.38
13041 - Illustrator I	19.07
13042 - Illustrator II	23.35
13043 - Illustrator III	28.38
13047 - Librarian	24.50
13050 - Library Aide/Clerk	13.17
13054 - Library Information Technology Systems Administrator	22.12
13058 - Library Technician	14.67
13061 - Media Specialist I	15.97
13062 - Media Specialist II	17.87
13063 - Media Specialist III	19.92
13071 - Photographer I	14.72
13072 - Photographer II	17.00
13073 - Photographer III	20.36
13074 - Photographer IV	24.89
13075 - Photographer V	30.21
13110 - Video Teleconference Technician	15.97
14000 - Information Technology Occupations	
14041 - Computer Operator I	14.73
14042 - Computer Operator II	19.13
14043 - Computer Operator III	20.49
14044 - Computer Operator IV	26.16
14045 - Computer Operator V	27.62
14071 - Computer Programmer I (1)	25.00
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	14.73
14160 - Personal Computer Support Technician	26.16
15000 - Instructional Occupations	
15010 - Aircrew Training Devices Instructor (Non-Rated)	29.35
15020 - Aircrew Training Devices Instructor (Rated)	35.52
15030 - Air Crew Training Devices Instructor (Pilot)	36.76
15050 - Computer Based Training Specialist / Instructor	30.38
15060 - Educational Technologist	27.38
15070 - Flight Instructor (Pilot)	36.76
15080 - Graphic Artist	21.00
15090 - Technical Instructor	18.91
15095 - Technical Instructor/Course Developer	23.11
15110 - Test Proctor	17.16
15120 - Tutor	17.16
16000 - Laundry, Dry-Cleaning, Pressing And Related Occupations	

16010 - Assembler	7.74
16030 - Counter Attendant	7.74
16040 - Dry Cleaner	9.73
16070 - Finisher, Flatwork, Machine	7.74
16090 - Presser, Hand	7.74
16110 - Presser, Machine, Drycleaning	7.74
16130 - Presser, Machine, Shirts	7.74
16160 - Presser, Machine, Wearing Apparel, Laundry	7.74
16190 - Sewing Machine Operator	10.27
16220 - Tailor	10.78
16250 - Washer, Machine	8.39
19000 - Machine Tool Operation And Repair Occupations	
19010 - Machine-Tool Operator (Tool Room)	21.04
19040 - Tool And Die Maker	25.67
21000 - Materials Handling And Packing Occupations	
21020 - Forklift Operator	14.82
21030 - Material Coordinator	19.18
21040 - Material Expediter	19.18
21050 - Material Handling Laborer	10.29
21071 - Order Filler	10.87
21080 - Production Line Worker (Food Processing)	14.82
21110 - Shipping Packer	12.98
21130 - Shipping/Receiving Clerk	12.98
21140 - Store Worker I	11.02
21150 - Stock Clerk	14.95
21210 - Tools And Parts Attendant	14.82
21410 - Warehouse Specialist	14.82
23000 - Mechanics And Maintenance And Repair Occupations	
23010 - Aerospace Structural Welder	18.74
23021 - Aircraft Mechanic I	22.24
23022 - Aircraft Mechanic II	23.35
23023 - Aircraft Mechanic III	24.52
23040 - Aircraft Mechanic Helper	17.44
23050 - Aircraft, Painter	19.32
23060 - Aircraft Servicer	19.34
23080 - Aircraft Worker	20.27
23110 - Appliance Mechanic	18.04
23120 - Bicycle Repairer	14.66
23125 - Cable Splicer	19.76
23130 - Carpenter, Maintenance	17.56
23140 - Carpet Layer	17.29
23160 - Electrician, Maintenance	23.21
23181 - Electronics Technician Maintenance I	17.93
23182 - Electronics Technician Maintenance II	25.55
23183 - Electronics Technician Maintenance III	26.62
23260 - Fabric Worker	16.54
23290 - Fire Alarm System Mechanic	18.79
23310 - Fire Extinguisher Repairer	15.72
23311 - Fuel Distribution System Mechanic	18.79
23312 - Fuel Distribution System Operator	16.80
23370 - General Maintenance Worker	16.43
23380 - Ground Support Equipment Mechanic	22.24
23381 - Ground Support Equipment Servicer	19.34
23382 - Ground Support Equipment Worker	20.27
23391 - Gunsmith I	14.48
23392 - Gunsmith II	15.97
23393 - Gunsmith III	17.51
23410 - Heating, Ventilation & Air-Conditioning Mechanic	18.38
23411 - Heating, Ventilation & Air Conditioning Mechanic (R&D Facility)	19.30
23430 - Heavy Equipment Mechanic	18.38
23440 - Heavy Equipment Operator	17.87
23460 - Instrument Mechanic	22.82

23465 - Laboratory/Shelter Mechanic	15.88
23470 - Laborer	11.36
23510 - Locksmith	18.04
23530 - Machinery Maintenance Mechanic	23.32
23550 - Machinist, Maintenance	18.05
23580 - Maintenance Trades Helper	14.41
23591 - Metrology Technician I	22.82
23592 - Metrology Technician II	23.80
23593 - Metrology Technician III	24.74
23640 - Millwright	18.79
23710 - Office Appliance Repairer	19.90
23760 - Painter, Maintenance	17.56
23790 - Pipefitter, Maintenance	18.90
23810 - Plumber, Maintenance	18.06
23820 - Pneudraulic Systems Mechanic	18.79
23850 - Rigger	18.79
23870 - Scale Mechanic	17.29
23890 - Sheet-Metal Worker, Maintenance	18.38
23910 - Small Engine Mechanic	16.75
23931 - Telecommunications Mechanic I	18.38
23932 - Telecommunications Mechanic II	20.21
23950 - Telephone Lineman	18.38
23960 - Welder, Combination, Maintenance	18.38
23965 - Well Driller	18.79
23970 - Woodcraft Worker	18.79
23980 - Woodworker	16.43
24000 - Personal Needs Occupations	
24570 - Child Care Attendant	7.78
24580 - Child Care Center Clerk	9.71
24610 - Chore Aide	8.42
24620 - Family Readiness And Support Services Coordinator	12.43
24630 - Homemaker	12.32
25000 - Plant And System Operations Occupations	
25010 - Boiler Tender	18.86
25040 - Sewage Plant Operator	17.87
25070 - Stationary Engineer	18.86
25190 - Ventilation Equipment Tender	14.85
25210 - Water Treatment Plant Operator	17.56
27000 - Protective Service Occupations	
27004 - Alarm Monitor	11.98
27007 - Baggage Inspector	10.74
27008 - Corrections Officer	15.28
27010 - Court Security Officer	16.82
27030 - Detection Dog Handler	13.55
27040 - Detention Officer	15.28
27070 - Firefighter	16.82
27101 - Guard I	10.74
27102 - Guard II	13.55
27131 - Police Officer I	18.35
27132 - Police Officer II	20.41
28000 - Recreation Occupations	
28041 - Carnival Equipment Operator	9.22
28042 - Carnival Equipment Repairer	9.68
28043 - Carnival Equipment Worker	7.64
28210 - Gate Attendant/Gate Tender	12.85
28310 - Lifeguard	11.10
28350 - Park Attendant (Aide)	14.38
28510 - Recreation Aide/Health Facility Attendant	10.49
28515 - Recreation Specialist	14.83
28630 - Sports Official	11.45
28690 - Swimming Pool Operator	15.65
29000 - Stevedoring/Longshoremen Occupational Services	

29010 - Blocker And Bracer	17.70
29020 - Hatch Tender	17.70
29030 - Line Handler	17.70
29041 - Stevedore I	16.90
29042 - Stevedore II	18.56
30000 - Technical Occupations	
30010 - Air Traffic Control Specialist, Center (HFO) (2)	34.27
30011 - Air Traffic Control Specialist, Station (HFO) (2)	23.64
30012 - Air Traffic Control Specialist, Terminal (HFO) (2)	26.03
30021 - Archeological Technician I	17.26
30022 - Archeological Technician II	19.32
30023 - Archeological Technician III	23.94
30030 - Cartographic Technician	24.23
30040 - Civil Engineering Technician	20.75
30061 - Drafter/CAD Operator I	17.26
30062 - Drafter/CAD Operator II	19.55
30063 - Drafter/CAD Operator III	20.50
30064 - Drafter/CAD Operator IV	25.23
30081 - Engineering Technician I	14.53
30082 - Engineering Technician II	17.48
30083 - Engineering Technician III	21.00
30084 - Engineering Technician IV	28.62
30085 - Engineering Technician V	33.81
30086 - Engineering Technician VI	40.89
30090 - Environmental Technician	22.19
30210 - Laboratory Technician	18.92
30240 - Mathematical Technician	24.23
30361 - Paralegal/Legal Assistant I	16.85
30362 - Paralegal/Legal Assistant II	20.89
30363 - Paralegal/Legal Assistant III	25.55
30364 - Paralegal/Legal Assistant IV	30.92
30390 - Photo-Optics Technician	24.23
30461 - Technical Writer I	20.96
30462 - Technical Writer II	25.62
30463 - Technical Writer III	30.71
30491 - Unexploded Ordnance (UXO) Technician I	21.78
30492 - Unexploded Ordnance (UXO) Technician II	26.35
30493 - Unexploded Ordnance (UXO) Technician III	31.59
30494 - Unexploded (UXO) Safety Escort	21.78
30495 - Unexploded (UXO) Sweep Personnel	21.78
30620 - Weather Observer, Combined Upper Air Or Surface Programs (3)	20.50
30621 - Weather Observer, Senior (3)	22.74
31000 - Transportation/Mobile Equipment Operation Occupations	
31020 - Bus Aide	9.74
31030 - Bus Driver	12.67
31043 - Driver Courier	13.89
31260 - Parking and Lot Attendant	9.19
31290 - Shuttle Bus Driver	14.77
31310 - Taxi Driver	9.91
31361 - Truckdriver, Light	14.77
31362 - Truckdriver, Medium	16.55
31363 - Truckdriver, Heavy	16.83
31364 - Truckdriver, Tractor-Trailer	16.83
99000 - Miscellaneous Occupations	
99030 - Cashier	9.27
99050 - Desk Clerk	7.22
99095 - Embalmer	21.13
99251 - Laboratory Animal Caretaker I	8.61
99252 - Laboratory Animal Caretaker II	13.46
99310 - Mortician	21.13
99410 - Pest Controller	12.10
99510 - Photofinishing Worker	11.06

99710 - Recycling Laborer	14.15
99711 - Recycling Specialist	16.26
99730 - Refuse Collector	12.79
99810 - Sales Clerk	10.45
99820 - School Crossing Guard	12.33
99830 - Survey Party Chief	15.69
99831 - Surveying Aide	9.79
99832 - Surveying Technician	13.40
99840 - Vending Machine Attendant	12.64
99841 - Vending Machine Repairer	14.48
99842 - Vending Machine Repairer Helper	12.64

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 10 years, and 4 after 20 years. Length of service includes the whole span of continuous service with the present contractor or successor, wherever employed, and with the predecessor contractors in the performance of similar work at the same Federal facility. (Reg. 29 CFR 4.173)

HOLIDAYS: A minimum of ten paid holidays per year, New Year's Day, Martin Luther King Jr's Birthday, Washington's Birthday, Memorial Day, Independence Day, Labor Day, Columbus Day, Veterans' Day, Thanksgiving Day, and Christmas Day. (A contractor may substitute for any of the named holidays another day off with pay in accordance with a plan communicated to the employees involved.) (See 29 CFR 4174)

THE OCCUPATIONS WHICH HAVE PARENTHESES AFTER THEM RECEIVE THE FOLLOWING BENEFITS (as numbered):

1) 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) APPLICABLE TO AIR TRAFFIC CONTROLLERS ONLY - NIGHT DIFFERENTIAL: An employee is entitled to pay for all work performed between the hours of 6:00 P.M. and 6:00 A.M. at the rate of basic pay plus a night pay differential amounting to 10 percent of the rate of basic pay.

3) 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 regarding 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.

NOTE: These differentials are only applicable to work that has been specifically designated by the agency for ordnance, explosives, and incendiary material differential pay.

**** UNIFORM ALLOWANCE ****

If employees are required to wear uniforms in the performance of this contract (either by the terms of the Government contract, by the employer, by the state or local law, etc.), the cost of furnishing such uniforms and maintaining (by laundering or dry cleaning) such uniforms is an expense that may not be borne by an employee where such cost reduces the hourly rate below that required by the wage determination. The Department of Labor will accept payment in accordance with the following standards as compliance:

The contractor or subcontractor is required to furnish all employees with an adequate number of uniforms without cost or to reimburse employees for the actual cost of the uniforms. In addition, where uniform cleaning and maintenance is made the responsibility of the employee, all contractors and subcontractors subject to this wage determination shall (in the absence of a bona fide collective bargaining

agreement providing for a different amount, or the furnishing of contrary affirmative proof as to the actual cost), reimburse all employees for such cleaning and maintenance at a rate of \$3.35 per week (or \$.57 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 link 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://wdcl.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) and computes a proposed rate).
- 2) After contract award, the contractor prepares a written report listing in order proposed classification title), a Federal grade equivalency (FGE) for each proposed classification), job description), and rationale for proposed wage rate), 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-10

NASA VALUES

NASA is privileged to take on missions of extraordinary risk, complexity, and national priority. The Agency's employees recognize their responsibilities and are accountable for the important work entrusted to them. They strive to achieve an uncompromising standard of technical excellence in a healthy and safe environment.

The Agency's four shared core values support NASA's commitment to technical excellence and express the ethics that guide the Agency's behavior. These values are the underpinnings of NASA's spirit and resolve.

- **Safety:** NASA's constant attention to safety is the cornerstone upon which NASA builds mission success. NASA employees are committed, individually and as a team, to protecting the safety and health of the public, NASA team members, and the assets that the Nation entrusts to the Agency.
- **Teamwork:** NASA strives to ensure that the Agency's workforce functions safely at the highest levels of physical and mental well-being. NASA's most powerful tool for achieving mission success is a multi-disciplinary team of competent people. The Agency builds and values high-performing teams that are committed to continuous learning, trust, and openness to innovation and new ideas.
- **Integrity:** NASA is committed to maintaining an environment of trust built upon honesty, ethical behavior, respect, and candor. Building trust through ethical conduct as individuals and as an organization is a necessary component of mission success.
- **Mission Success:** NASA's purpose is to conduct successful space missions on behalf of the Nation and to explore, discover, and learn. Every NASA employee believes that mission success is the natural consequence of an uncompromising commitment to technical excellence, safety, teamwork, and integrity.