George C. Marshall Space Flight Center
Marshall Space Flight Center, Alabama 35812

Marshall Space Flight Center
Unified NASA Information Technology Services (UNITeS)

Final RFP

RFP Number: 03-HAW-001

Date of Issue: April 11, 2003

Provided below is a list of the significant changes incorporated into the final version of the RFP entitled “Unified NASA Information Technology Services (UNITeS)”, associated with NASA Headquarters Solicitation 03-HAW-001 for the Space Mission Communications & Data Services procurement. The changes are a result of comments received from Industry and continuing internal reviews performed by the Center. All questions and comments received from Industry have been thoroughly evaluated and the RFP updated as appropriate. Only the most significant changes are listed below. Other minor editorial changes have also been made. Offerors are cautioned to carefully review the Final RFP in its entirety to ensure that all changes have been identified. Grammatical and typographical errors have been corrected throughout the Final RFP as identified.

1. Clause B.2, “Estimated Cost and Award Fee” revised to reflect correct date.

2. Clause C.1 revised to reference “Performance Work Statement” in lieu of “Statement of Work.”

3. Clause F.3, ”Place of Performance” is revised to reflect correct FAR reference, content, and date.

4. Clause G.2 revised to reflect the “MSFC Accounting Operations Office” in lieu of “Financial Management Office.”

5. Clause G.4, “Contractor Employee Badging and Employment Termination Clearance” is revised to reflect “MSFC Protective Services Department” in lieu of “MSFC Security Division.”

6. Clause G.10, “List of Installation-Provided Property and Services” is amended to reflect utilization of the Fitness/Wellness Center.

7. Clause G.11, paragraph (c), is revised to reflect “General office supplies” in lieu of “Supplies from store stock.”

8. Clause H.2, “Asbestos Material,” is revised to reflect the current clause.

9. Clause H.10, “Hazardous Material Reporting,” is revised to reflect the correct form title for MSFC Form 4099.

10. Section I is revised to reflect the deletion, addition, or revision of several FAR clauses.

11. ATTACHMENT J, List of Documents, is revised to reflect current page counts.

12. ATTACHMENT J-1, Performance Work Statement, is revised to reflect several changes. Additions to the PWS are delineated by a vertical change bar in the right margin. Deletions to PWS content are not reflected.

13. ATTACHMENT J-2, Data Procurement Document, is revised to reflect several changes which are delineated by a vertical change bar in the right margin.

14. ATTACHMENT J-3, Wage Determinations, is revised to reflect Revision No. 16 to WD 94-2234.

15. ATTACHMENT J-4, Performance Measurement Standards, is revised to reflect the following changes:

    a. “Award Fee WBS Sub-section Weighting Table” is revised to read “Award Fee PWS Sub-section Weighting Table.”
    b. “Award Fee WBS Sub-section Weighting Table” is revised to reflect revised titles for PWS 3.7 and 5.2.
    c. ATTACHMENT J-4-(I) is revised to reflect 3.1, Agencywide Applications Projects.
    d. Page J-4-29 is revised to specify that additional surveillance methodologies may to utilized, in addition to those specified, in determining contractor performance.
    e. The performance standard for 3.2, Digital Television, is revised to reflect the deletion of the second standard.

f. ATTACHMENTS J-4-(G) and J-4-(H) are revised to reflect correct PWS references, DR references, and other miscellaneous changes.

16 ATTACHMENT J-5, UNITeS CPAF Evaluation Plan, Page J-5-21, is revised to reflect “CIO” (Office of the Chief Information Officer) in lieu of “ISD” (Institutional Services Department). In addition, references to “IT Managers” have been added. Other minor editorial changes have also been made.

17. ATTACHMENT J-10, Applicable Regulations and Procedures, is replaced in its entirety to reflect deletions and additional documents.

18. ATTACHMENT J-11, Contract Security Classification Specification, is replaced in its entirety.

19. ATTACHMENT J-13, Acronyms and Abbreviations, is revised to reflect additional acronyms.

20. ATTACHMENT A, L.12, Subfactor S1, Phase-In, is revised to reflect a phase-in period of “90 calendar days” in lieu of “90 days”

21. ATTACHMENT A, L.13, COST/PRICE PROPOSAL INSTRUCTIONS, are replaced in their entirety.

22. ATTACHMENT A, L.16, (UNITeS) PROPOSAL MARKING AND DELIVERY, is revised to reflect updated delivery and gate entry instructions.

23. ATTACHMENT A, SUPPLEMENTAL PROPOSAL INSTRUCTIONS AND EVALUATION CRITERIA, is further revised to reflect changes as indicated by a vertical bar in the right margin.

24. ATTACHMENT B, Cost Forms, are replaced in their entirety.

25. ATTACHMENT C, Background and Historical, is replaced in its entirety to reflect additional information. Changes are indicated by a vertical bar in the right hand margin.

In addition to the changes listed below the following clarifications and/or additional information are provided:

1. This RFP requires specific Small Disadvantaged Business goals as specified.

2. The Offeror is reminded to check the Unified NASA Information Technology Services (UNITeS) website located at http://unites.nasa.gov for general information.

Offeror’s are reminded that the “Blackout” letter for this procurement was distributed to all MSFC personnel concurrently with the release of the Final RFP to industry. Any questions on the Final RFP must be submitted in accordance with the directions provided in the Space Mission Communications and Data Services (SMCDS) Final RFP Cover Letter.

PPC: **TPA: 10** **OMB APPROVAL #: 9000-0008**

SOLICITATION, OFFER AND AWARD	1. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 700) ▶	RATING DO-C9	PAGE OF 1	PAGES 803

2. CONTRACT NO.	3. SOLICITATION NO.	4. TYPE OF SOLICITATION	5. DATE ISSUED	6. REQUISITION/PURCHASE NO.
	03-HAW-001	SEALED BID (IFB) X NEGOTIATED (RFP)	April 11, 2003	

7. ISSUED BY: CODE PS31-J	8. ADDRESS OFFER TO *(If other than item 7)*
Procurement Office, Mail Code PS31-J George C. Marshall Space Flight Center National Aeronautics and Space Administration Marshall Space Flight Center, AL 35812	See Item 7

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

SOLICITATION

9. Sealed offers in original and *_ copies for furnishing the supplies or services in the Schedule will be received at the place specified in item 8, or if handcarried, in the depository located in *__ until _*___ local time _*_ CAUTION – LATE Submissions, (* See Section L.16)
(Hour) *(Date)*

Modifications, and Withdrawals: See Section L, Provisions No. 52.214-7 or 52.215-1. All offers are subject to all terms and conditions contained in this solicitation.

10. FOR INFORMATION CALL: ▶	A. NAME	B. TELEPHONE NO. *(NO COLLECT CALLS)*			C. E-MAIL ADDRESS
		AREA CODE	NUMBER	EXT.	
	Jeffrey S. Jackson	(256)	544-8935		Jeffrey.S.Jackson@nasa.gov

11. TABLE OF CONTENTS

(√)	SEC.	DESCRIPTION	PAGE(S)	(√)	SEC.	DESCRIPTION	PAGE(S)
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OFFER (Must be fully completed by offeror)

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

12. In compliance with the above, the undersigned agrees, if this offer is accepted within _____ calendar days *(60 calendar days unless a different period is inserted by the offeror)* from the date for receipt of offers specified above, to furnish any or all items upon which prices are offered at the price set opposite each item, delivered at the designated point(s), within the time specified in the schedule.

13. DISCOUNT FOR PROMPT PAYMENT *(See Section I, Clause No. 52.232-8)* ▶	10 CALENDAR DAYS %	20 CALENDAR DAYS %	30 CALENDAR DAYS %	CALENDAR DAYS %

14. ACKNOWLEDGMENT OF AMENDMENTS *(The offeror acknowledges receipt of amendments to the SOLICITATION for offerors and related documents numbered and dated:)*	AMENDMENT NO.	DATE	AMENDMENT NO.	DATE

15A. NAME AND ADDRESS OF OFFEROR	CODE	FACILITY	16. NAME AND TITLE OF PERSON AUTH. TO SIGN OFFER *(Type or print)*

15B. TELEPHONE NO.			15C. CHECK IF REMITTANCE ADDRESS IS	17. SIGNATURE	18. OFFER DATE
AREA CODE	NUMBER	EXT.	☐ DIFFERENT FROM ABOVE - ENTER SUCH ADDRESS IN SCHEDULE		

AWARD *(To be completed by Government)*

19. ACCEPTED AS TO ITEMS NUMBERED	20. AMOUNT	21. ACCOUNTING AND APPROPRIATION

22. AUTHORITY FOR USING OTHER THAN FULL AND OPEN COMPETITION

☐ 10 U.S.C. 2304(c) ( ) ☐ 41 U.S.C. 253(c) ( )

23. SUBMIT INVOICES TO ADDRESS SHOWN IN ▶ *(4 copies unless otherwise specified)* ITEM

24. ADMINISTERED BY *(if other than item 7)* CODE

25. PAYMENT WILL BE MADE BY CODE RS23
Accounting Operations Office
George C. Marshall Space Flight Center, NASA
Marshall Space Flight Center, AL 35812
Automated Invoice Payment Information: (256) 544-5566

26. NAME OF CONTRACTING OFFICER *(Type or print)*	27. UNITED STATES OF AMERICA *(Signature of Contracting Officer)*	28. AWARD DATE

IMPORTANT – Award will be made on this Form, or on Standard Form 26, or by other authorized official written notice

SECTION B

SUPPLIES OR SERVICES AND PRICES/COSTS

B.1 BRIEF DESCRIPTION OF WORK

The Contractor shall furnish all personnel, facilities, equipment, material, supplies, and services (except as may be expressly set forth in this contract as furnished by the Government) and otherwise do all things necessary to, or incident to, performing and providing:

"UNIFIED NASA INFORMATION TECHNOLOGY SERVICES (UNITeS)"

The effort comprising this contract will be evaluated in accordance with **ATTACHMENT J-5, "UNITeS CPAF EVALUATION PLAN."**

A. Completion Work

Work that has been identified in advance (based on utilization of both the Performance Work Statement and ATTACHMENT C, Background and Historical Information), and for which the estimated cost and fee have been negotiated, shall comprise the negotiated contract value. The negotiated contract value, including the values negotiated for each option period, include all overhead, G&A, profit, and all other items that apply to delivering the services required of this contract effort.

B. Indefinite Delivery, Requirements Work

Work that may be of a recurring nature but cannot be sufficiently identified or quantified in advance shall be identified as Requirements work. Requirements services shall apply to those services identified in **PWS sections 5.1, MSFC Applications and Web Services, and 3.9.4 and 5.10.4, Maintenance**, where the level of service required exceeds the bands established for these services. For purposes of contract value, performance within the bands specified for MSFC Applications and Web Services, and Maintenance shall be considered part of the negotiated contract value and fluctuations within these performance parameters shall not constitute grounds for equitable adjustment to the contract. Should effort exceeding the maximum limit of the performance bands be required, a contract modification will be issued per the procedures established in **Section B.8** at the negotiated burdened Labor rates specified in **ATTACHMENT J-14**. The Government reserves the right to request an equitable adjustment for effort that falls below the performance bands.

(End of clause)

B.2 ESTIMATED COST AND AWARD FEE

(a) The estimated cost and contract fees are as follows:

Period Covered	Estimated Cost*	Shared Savings Fee	Earned Award Fee	Potential Award Fee
1/1/04-6/30/04				
7/1/04 - 12/31/04	---			
1/1/05-6/30/05	---			
7/1/05 - 12/31/05	---			
1/1/06-6/30/06	---			
7/1/06 - 12/31/06	---			
1/1/07-6/30/07				
7/1/07 - 12/31/07	---			
1/1/08-6/30/08				
7/1/08 - 12/31/08	---			
TOTAL				

*The Estimated Cost applicable to the entire 3-year base period and both 1-year options is reflected only in the initial 6-month period for each of those periods. The (---) reflected for each 6-month period thereafter indicates that the Estimated Cost for that period is reflected above.

(b) The estimated cost and award fees applicable to the base period and each option period are as follows:

CLIN	Qty.	Unit	Estimated Cost	Award Fee
BASIC PERIOD (January 1, 2004 thru December 31, 2006)				
001	1	Job	$ TBD	$ TBD
			Estimated Amount	
002	1	ID/R	$	

CLIN	Qty.	Unit	Estimated Cost	Award Fee
OPTION PERIOD 1 (January 1, 2007 thru December 31, 2007)				
003	1	Job	$ TBD	$ TBD
			Estimated Amount	
004	1	ID/R	$	

CLIN	Qty.	Unit	Estimated Cost	Award Fee
OPTION PERIOD 2 (January 1, 2008 thru December 31, 2008)				
005	1	Job	$ TBD	$ TBD
			Estimated Amount	
006	1	ID/R	$	

(End of clause)

B.3 AWARD FEE FOR SERVICE CONTRACTS

(a) The contractor can earn award fee from a minimum of zero dollars to the maximum stated in **Clause B.2,"ESTIMATED COST AND AWARD FEE"** in this contract.

(b) Beginning 6 months after the effective date of this contract, the Government shall evaluate the Contractor's performance every 6 months to determine the amount of award fee earned by the contractor during the period. The Contractor may submit a self-evaluation of performance for each evaluation period under consideration. These self-evaluations will be considered by the Government in its evaluation. The Government's Fee Determination Official (FDO) will determine the award fee amounts based on the Contractor's performance in accordance with **ATTACHMENT J-5, UNITeS CPAF EVALUATION PLAN**. The plan may be revised unilaterally by the Government prior to the beginning of any rating period to redirect emphasis. Performance evaluation for PWS sections 3.0 and 5.0 will be evaluated against the standards delineated in **ATTACHMENT J-4, PERFORMANCE MEASUREMENT STANDARDS**. Any changes to this ATTACHMENT will be made by bilateral contract modification.

(c) The Government will advise the Contractor in writing of the evaluation results. The NASA/MSFC Financial Management Office, RS23 will make payment based on issuance of a unilateral modification by the Contracting Officer.

(d) The amount of award fee which can be awarded in each evaluation period is limited to the amounts set forth at **Clause B.2 ESTIMATED COST AND AWARD FEE**. Award fee which

is not earned in an evaluation period cannot be reallocated to future evaluation periods.

(e) (1) Provisional award fee payments will be made under this contract pending the determination of the amount of fee earned for an evaluation period. If applicable, provisional award fee payments will be made to the Contractor on a monthly basis. The total amount of award fee available in an evaluation period that will be provisionally paid is the lesser of **60** percent or the prior period's evaluation score.

(2) Provisional award fee payments will be superseded by the final award fee evaluation for that period. If provisional payments exceed the final evaluation score, the Contractor will either credit the next payment voucher for the amount of such overpayment or refund the difference to the Government, as directed by the Contracting Officer.

(3) If the Contracting Officer determines that the Contractor will not achieve a level of performance commensurate with the provisional rate, payment of provisional award fee will be discontinued or reduced in such amounts as the Contracting Officer deems appropriate. The Contracting Officer will notify the Contractor in writing if it is determined that such discontinuance or reduction is appropriate.

(4) Provisional award fee payments will be made prior to the first award fee determination by the Government.

(f) Award fee determinations are unilateral decisions made solely at the discretion of the Government. Award fee that is determined to be payable by the Fee Determination Official under this contract shall be payable upon notice of award to the Contractor from the Contracting Officer and issuance of contract modification incorporating award fee earned.

(g) In the event this contract is terminated prior to a regularly scheduled semiannual award fee determination, the award fee to be paid the Contractor shall be an appropriate portion of the potential award fee, if any, as may be determined by the Fee Determination Official based on work accomplished.

(h) The amount of award fee which has been awarded pursuant to this clause and the period to which said fee applies is set forth in **Clause B.2(a)**.

(End of Clause)

B.4 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 (To be negotiated)

Any Other Item Deemed Appropriate (To be negotiated)

(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.

(End of clause)

B.5 PREMIUM FOR SCHEDULED OVERTIME (MSFC--52.222-90) (FEB 2001)

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

Period	Amount
1/1/04 to 12/31/04	$ TBD
1/1/05 to 12/31/05	$ TBD
1/1/06 to 12/31/06	$ TBD
1/1/07 to 12/31/07	$ TBD
1/1/08 to 12/31/08	$ TBD

(End of clause)

B.6 CONTRACT FUNDING (1852.232-81) (JUN 1990)

(a) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds clause, the total amount allotted by the Government to this contract is $_____. This allotment is for performance in all areas and covers the following estimated period of performance: contract award through_____.

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

(c) Recapitulation of funding is as follows:

	Previous	This Action	Total
Estimated Cost			
Shared Savings Fee			
Provisional Award Fee (Funded at 60%)			
Award Fee Earned			
Total Sum Allotted			

(End of clause)

B.7 INDEFINITE DELIVERY/REQUIREMENTS

(a) The completion effort (definite quantity) of this contract is considered to be those services negotiated for the estimated cost and fees for the basic contract period and each priced option period. Work that cannot be sufficiently identified, predetermined, or quantified is identified as Requirements work.

(b) Requirements work is specified as that effort that exceeds the performance bands specified in **PWS sections 5.1, MSFC Applications and Web Services, and 3.9.4 and 5.10.4, Maintenance.**

(c) The estimated amount of Requirements work for each period is specified in **Section B.2** as CLINS 002, 004, and 006.

The Government is not obligated to place any orders under this contract for Requirements work.

(End of clause)

B.8 REQUIREMENTS ORDERING PROCEDURES

(a) The Contracting Officer (CO) will issue all Requirements work under this contract. As required, Task Orders (TO's), will be issued via bilateral contract modification based on the established burdened labor rates delineated in **ATTACHMENT J-14, Requirements Labor Rates**, and will contain the following information:

1. Date of Order (effective date of Modification)
2. Contract number and Order number (i.e., Task Order 001, 002, etc.)
3. Contract item number and description, quantity, and estimated cost or fee (i.e., specific PWS sections requiring band adjustment, applications to be delivered, and negotiated adjustment value to contract)
4. Delivery or performance schedule (if different from basic contract)
5. Place of delivery or performance (if different from basic contract)
6. Any packaging, packing, and shipping instructions (if different from basic contract)
7. Accounting and appropriation data (if funding to be provided with order)
8. Method of payment and payment office (if different from basic contract)

(b) Fixed Labor Rate Requirements Work

The Contractor shall perform any and all functions required by the issuance and negotiation of Task Orders per the rates established in **ATTACHMENT J-14**. These rates are burdened to include all costs, direct and indirect, including fringes, overhead, and general and administrative, but excluding fee. These rates are fixed for the base period and each option year as submitted by the Contractor as part of the negotiated proposal.

(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 protest. The Contractor shall be entitled to an equitable adjustment for such an extension, subject to 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 protester or one of the protesters, no additional fee shall be put in the award fee pool or otherwise made available to the Contractor, unless the Contractor or another protester substantially prevails in the protest.

(End of clause)

[END OF SECTION]

SECTION C

DESCRIPTION/SPECIFICATIONS/PERFORMANCE WORK STATEMENT

C.1 DESCRIPTION/SPECIFICATIONS/PERFORMANCE WORK STATEMENT

The Performance Work Statement is **Attachment J-1**.

(End of clause)

C.2 GENERAL

It is understood and agreed that the work performed under this contract is on a completion basis and that the Performance Work Statement (PWS), in conjunction with the Background and Historical data furnished in ATTACHMENT C, is stated in sufficient terms to necessitate Government direction to the minimum necessary to assure operational requirements are met. In addition, for the effort specified in **PWS Sections 5.1, MSFC Applications and Web Services, and 3.9.4 and 5.10.4, Maintenance**, ID/R Requirements beyond the bands established in the PWS will be issued in accordance with **Clauses B.7** and **B.8**.

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 that may occur from time to time throughout the period of performance. Work and increased work volume of this nature directed of the Contractor by the Government will be by use of the "Technical Direction" clause from the Contracting Officer or his/her 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 II." However, if any written direction by the Government through "Technical Direction" 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 of this contract.

(End of clause)

[END OF SECTION]

SECTION D

PACKAGING AND MARKING

D.1 PACKAGING, HANDLING, AND TRANSPORTATION (1852.211-70) (JUNE 2000)

(a) The Contractor shall comply with NPG 6000.1E, "Requirements for Packaging, Handling, and Transportation for Aeronautical and Space Systems, Equipment, and Associated Components", dated April 26, 1999, as may be supplemented by the statement of work or specifications of this contract, for all items designated as Class I, II, or III.

(b) The Contractor's packaging, handling, and transportation procedures may be used, in whole or in part, subject to the written approval of the Contracting Officer, provided (1) the Contractor's procedures are not in conflict with any requirements of this contract, and (2) the requirements of this contract shall take precedence in the event of any conflict with the Contractor's procedures.

(c) The Contractor must place the requirements of this clause in all subcontracts for items that will become components of deliverable Class I, II, or III items.

(End of clause)

[END OF SECTION]

SECTION E

INSPECTION AND ACCEPTANCE

E.1 LISTING OF CLAUSES INCORPORATED BY REFERENCE

NOTICE: The following clauses are hereby incorporated by reference:

52.246-3 Inspection of Supplies -- Cost-Reimbursement (May 2001)
52.246-5 Inspection of Services -- Cost-Reimbursement (Apr 1984)

(End of clause)

E.2 PLACE OF FINAL INSPECTION AND ACCEPTANCE

The place of final inspection and acceptance for deliverables under this contract shall be at the F.o.b. point as set forth in Clause F.4, "Free On Board (F.o.b.) Point".

(End of clause)

[END OF SECTION]

SECTION F

DELIVERIES OR PERFORMANCE

F.1 LISTING OF CLAUSES INCORPORATED BY REFERENCE

NOTICE: The following clauses are hereby incorporated by reference:

52.242-15	Stop-Work Order (Aug 1989) -- Alternate I (Apr 1984)
52.247-65	F.o.b. Origin, Prepaid Freight -- Small Package Shipments (Jan 1991)
52.247-29	F.o.b. Origin (Jun 1998)

(End of clause)

F.2 PERIOD OF PERFORMANCE

(a) The period of performance of this contract shall be January 1, 2004 through December 31, 2006.

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

Option Period No.	Period of Performance
1	1/1/07 to 12/31/07
2	1/1/08 to 12/31/08

(End of clause)

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

The contractor shall perform the work under this contract at Marshall Space Flight Center, Alabama; NASA Headquarters, Washington, D.C.; Glenn Research Center, Ohio; Kennedy Space Center, Florida; Johnson Space Center, Texas; Ames Research Center, California; Goddard Space Flight Center, Maryland; Stennis Space Center, Mississippi; Dryden Flight Research Center, California; Langley Research Center, Virginia; Jet Propulsion Laboratory, California; Independent Validation and Verification Facility, West Virginia; Wallops Flight Facility, Maryland; Michoud Assembly Facility, Louisiana; White Sands Test Facility, New Mexico; Moscow, Russia; and at such other locations as may be approved in writing by the Contracting Officer.

(End of clause)

F.4 FREE ON BOARD (F.o.b.) POINT

(a) The F.o.b 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 F.o.b 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 clause 52.247-1, "Commercial Bill of Lading Notations."

(End of clause)

F.5 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)

F.6 BILLS OF LADING

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 Bill of Lading. All domestic shipments shall be made via Commercial Bills of Lading (CBLs). 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 bill of lading.

(1) International (export) and domestic overseas shipments of items deliverable under this contract shall be made by Government Bills of Lading (GBLs). 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: Transportation Officer, AD42, NASA, George C. Marshall Space Flight Center, MSFC, AL 35812. If time is limited, requests may be by telephone: (256) 544-4554. 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)

[END OF SECTION]

SECTION G

CONTRACT ADMINISTRATION DATA

G.1 LISTING OF CLAUSES INCORORATED BY REFERENCE

NOTICE: The following clauses are hereby incorporated by reference:

1852.227-70 New Technology (May 2002)
1852.242-71 Travel Outside of the United States (Dec 1988)
1852.242-73 NASA Contractor Financial Management Reporting (Jul 2000)

(End of Clause)

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

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

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

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

(2) For any period that the Defense Contract Audit Agency has authorized the Contractor to submit interim cost vouchers directly to the Government paying office, interim vouchers are not required to be sent to the Auditor, and are considered to be provisionally approved for payment, subject to final audit.

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

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

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

N/A

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

(i) Copy 1 NASA Contracting Officer
(ii) Copy 2 Auditor
(iii) Copy 3 Contractor
(iv) Copy 4 Contract administration office; and
(v) Copy 5 Project management office.

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

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

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

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 (1852.227-72) (JUL 1997)

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

	Title	Office Code	Address
New Technology Representative	Chief, Technology Utilization	CD30	MSFC, AL 35812
Patent Representative	Chief, Intellectual Property Counsel	LS01	MSFC, AL 35812

(b) Reports of reportable items, and disclosure of subject inventions, interim reports, final reports, utilization reports, and other reports required by the clause, as well as any correspondence with respect to such matters, should be directed to the New Technology Representative unless transmitted in response to correspondence or request from the Patent Representative. 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 CONTRACTOR EMPLOYEE BADGING AND EMPLOYMENT TERMINATION CLEARANCE (MSFC--52.204-90) (NOV 1999)

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

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

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

(End of clause)

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

(a) Performance of the work under this contract is subject to the written technical direction of the Contracting Officer's Technical Representative (COTR), who shall be specifically appointed by the Contracting Officer in writing in accordance with NASA FAR Supplement 1842.270. "Technical direction" means a directive to the Contractor that approves approaches, solutions, designs, or refinements; fills in details or otherwise completes the general description of work or documentation items; shifts emphasis among work areas or tasks; or furnishes similar instruction to the Contractor. Technical direction includes requiring studies and pursuit of certain lines of inquiry regarding matters within the general tasks and requirements in **ATTACHMENT J-1** of this contract.

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

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

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

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

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

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

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

(d) The Contractor shall proceed promptly with the performance of technical direction duly issued by the COTR in the manner prescribed by this clause and within the COTR's authority. If, in the Contractor's opinion, any instruction or direction by the COTR falls within any of the categories defined in paragraph (b) above, the Contractor shall not proceed but shall notify the Contracting Officer in writing within 5 working days after receiving it and shall request the Contracting Officer to take action as described in this clause. Upon receiving this notification, the Contracting Officer shall either issue an appropriate contract modification within a reasonable time or advise the

Contractor in writing within 30 days that the instruction or direction is --

(1) Rescinded in its entirety; or

(2) Within the requirements of the contract and does not constitute a change under the Changes clause of the contract, and that the Contractor should proceed promptly with its performance.

(e) A failure of the Contractor and Contracting Officer to agree that the instruction or direction is both within the requirements of the contract and does not constitute a change under the Changes clause, or a failure to agree upon the contract action to be taken with respect to the instruction or direction, shall be subject to the Disputes clause of this contract.

(f) Any action(s) taken by the Contractor in response to any direction given by any person other than the Contracting Officer or the COTR shall be at the Contractor's risk.

(End of clause)

G.6 INSTALLATION-ACCOUNTABLE GOVERNMENT PROPERTY (1852.245-71) (JUNE 1998)

(a) The Government property described in the clause at 1852.245-77 **(See G.10)**, List of Installation-Accountable Property and Services, shall be made available to the Contractor on a no-charge basis for use in performance of this contract. This property shall be utilized only within the physical confines of the NASA installation that provided the property. Under this clause, the Government retains accountability for, and title to, the property, and the Contractor assumes the following user responsibilities:

The Contractor shall retain responsibility for notifying cognizant property custodians of all changes in status associated with installation-provided property. All equipment users shall (1) report any missing or untagged (meeting the criteria for control) property to the cognizant property custodian; (2) notify the cognizant property custodian, supervisor, and the Installation Security Officer immediately if theft, damage, or loss of Government property is suspected; (3) ensure that installation-provided property is used only in pursuit of approved NASA programs and projects, or as otherwise authorized; (4) identify property not being actively used in pursuit of approved programs and projects; and (5) ensure that property is turned in to the Property Disposal Officer through the cognizant property custodian when no longer needed. Under no circumstances will the Contractor

dispose of installation property. Under this clause, the Contractor retains accountability for all material and the Contractor assumes full responsibilities.

On-site contractor employees shall also take the on-line Property Responsibility Training.

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

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

(i) The contractor's purchase order shall require the vendor to deliver the property to the installation central receiving area;

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

(iii) The contractor shall establish a record of the property as required by FAR 45.5 and 1845.5 and furnish to the Industrial Property Officer a DD Form 1149 Requisition and Invoice/Shipping Document (or installation equivalent) to transfer accountability to the Government within 5 working days after receipt of the property by the contractor. The contractor is accountable for all contractor-acquired property until the property is transferred to the Government's accountability.

(iv) Contractor use of Government property at an off-site location and off-site subcontractor use require advance approval of the contracting officer and notification of the SEMO. The contractor shall assume accountability and financial reporting responsibility for such property. The contractor shall establish records and property control procedures and maintain the property in accordance with the requirements of FAR Part 45.5 until its return to the installation.

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

(End of clause)

(All property provided to the Contractor for use under this contract that is not provided under Clauses **G.6, G.10**, and **ATTACHMENT J-9** are Contractor accountable)

G.7 FINANCIAL REPORTING OF NASA PROPERTY IN THE CUSTODY OF CONTRACTORS (1852.245-73)(AUG 2001)

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

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

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

(3) One copy shall be submitted (through the Department of Defense (DOD) Property Administrator if contract administration has been delegated to DOD) to the following address: AD41/ Installation Property Officer, NASA, George C. Marshall Space Flight Center, MSFC, AL 35812, unless the Contractor uses the NF 1018 Electronic Submission System (NESS) for report preparation and submission.

(c) The annual reporting period shall be from October 1 of each year through September 30 of the following year. The report shall be submitted in time to be received by October 31. The information contained in these reports is entered into the NASA accounting system to reflect current asset values for agency financial statement purposes. Therefore, it is essential that required reports be received no later than October 31. The Contracting Officer may, in NASA's interest, withhold payment until a reserve not exceeding $25,000 or 5 percent of the amount of the contract, whichever is less, has been set aside, if the Contractor fails to submit annual NF 1018 reports in accordance with 1845.505-14 and any supplemental instructions for the current reporting period issued by NASA. Such reserve shall be withheld until the Contracting Officer has determined that the required reports have been received by NASA. The withholding of any amount or the subsequent payment thereof shall not be construed as a waiver of any Government right.

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

(End of clause)

G.8 GOVERNMENT PROVIDED/FURNISHED PROPERTY

(a) This clause describes the categories of property that will either be provided to, furnished to, or acquired by the Contractor during performance of the contract and the applicable requirements associated with each category. The three categories of property are: (i) Installation-Provided Property for work being performed at MSFC; (ii) Government-Furnished and Contractor Acquired Property where the Contractor will be the Property Custodian; and (iii) Installation-Provided Property for which the Contractor has maintenance responsibility but will not be the Property Custodian. In accordance with **B.1, "Brief Description of Work"**, the Contractor shall provide all facilities, equipment, materials and supplies except as described in this clause.

(b) The Government, will provide to the Contractor all facilities, equipment (except for equipment described in paragraph (c) of this clause), materials, supplies, and support services as set forth in the "List of Installation-Provided Property and Services" clause (**see G.10**) of this contract for all work being performed at MSFC. However, the Government will not provide the following items:

(1) Personal items such as coveralls, hard hats, safety shoes, and safety glasses.

(2) Personalized tools and equipment.

(3) Nonstandard items and items not stocked within the MSFC inventory system.

In the event these Government-provided materials or supplies are not available as required, the Contractor is authorized to procure such supplies as are necessary for immediate use pending the restock of such supplies by the Government.

(c) In the performance of work hereunder, the Contractor will be furnished and shall acquire certain types of Government property located onsite at MSFC and other locations as specified in the contract, or as approved by the Contracting Officer, for which the Contractor shall be the Property Custodian. The contractor shall comply with the reporting requirements of the clause entitled "Financial Reporting of NASA Property in the Custody of Contractors"

(**see G.7**) for this property. In accordance with the "Contractor Accountable Onsite Government Property" clause (**see G.9**) of this contract, the control and accountable record keeping for such property shall be retained by the Contractor on the following types of property:

(1) Onsite Government Furnished Property (GFP) or Contractor Acquired Property (CAP) for which the Contractor is designated Systems Manager as set forth in **Attachment J-1, Performance Work Statement, Appendix A**. The list of this property is set forth in **Attachment J-8**.

(2) Offsite GFP or CAP, until transfer of accountability is accomplished when the property is installed and assigned to another Property Custodian, or other accountable NASA Contractor.

(d) In the performance of work hereunder, the Contractor shall be responsible for the maintenance of certain installation property, for which the Contractor <u>will not be</u> the Property Custodian. This property will be located onsite at Marshall Space Flight Center, other locations as specified in this contract, or as approved by the Contracting Officer. The control and accountable record keeping for such property will be retained by the Government in accordance with the clause entitled, "Installation-Provided Government Property." The Contractor shall exercise reasonable diligence in the care and safekeeping of such property while in its custody. The Contractor shall be responsible for the maintenance of such installation property, as specifically set forth in the Performance Work Statement.

(e) The Contractor shall perform the function of screening all requirements for CAP in accordance with the property clause entitled, "Acquisition of Centrally Reportable Equipment." The Contractor shall be responsible for conducting screening of the NASA Equipment Management System Central Data Base and excess from other agencies for equipment availability prior to acquisition.

(End of clause)

G.9 <u>CONTRACTOR ACCOUNTABLE ONSITE GOVERNMENT PROPERTY (1852.245-74) (MAR 1989)</u>

(a) In performance of work under this contract, certain Government property identified in the contract shall be provided to the Contractor on a no-charge-for-use basis by the installation's Supply and Equipment Management Officer. That property shall be utilized in the performance of this contract at the installation that provided the property or at such other installations or locations as may

be specified elsewhere in this contract. The Contractor assumes accountability and user responsibilities for the property.

(b) Government property provided shall in every respect be subject to the provisions of the FAR 52.245-5 Government property clause of this contract. In addition, the contractor is responsible for managing this property in accordance with the guidelines provided by the installation's Supply and Equipment Management Officer or any other formally designated representatives of the Contracting Officer. The guidelines include but are not limited to requiring the Contractor to --

(1) Use Economic Order Quantity (EOQ) methods for routine stock replenishment;

(2) Utilize the Federal Cataloging System;

(3) Comply with shelf-life requirements;

(4) Provide for accountability and control (using the NASA Equipment Management System (NEMS)) of all equipment costing $1000 and over, plus that equipment designated as "sensitive";

(5) Provide for physical inventory of all controlled equipment at least every 3 years;

(6) Provide for sample inventories of materials plus complete inventories every 5 years;

(7) Conduct walk-through utilization inspections;

(8) Screen NEMS before acquiring any equipment costing $1000 or over, plus equipment designated by the installations as sensitive and costing $500 and over;

(9) Support the Equipment Acquisition Document (EAD) process; and

(10) Use Government sources as the first source of supply.

(End of clause)

G.10 LIST OF INSTALLATION-ACCOUNTABLE PROPERTY AND SERVICES (1852.245-77) (JUL 1997)

In accordance with the clause at 1852.245-71, Installation-Accountable Government Property, the Contractor is authorized use of the types of property and services listed below, to the extent they are available, in the performance of this contract within the physical borders of the installation which may include buildings and space owned

or directly leased by NASA in close proximity to the installation, if so designated by the Contracting Officer.

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

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

(1) Equipment to be made available is listed in **Attachment J-9**. The Government retains accountability for this property under the clause at 1852.245-71, Installation-Accountable Government Property, regardless of its authorized location.

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

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

(c) General office supplies.

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

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

(f) Installation service facilities: **See Attachment J-9.**

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

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

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

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

(k) Fitness/Wellness Center exercise/recreation facilities.

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

(End of clause)

G.11 STATEMENT OF EQUIVALENT RATES FOR FEDERAL HIRES (52.222-42) (MAY 1989)

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

THIS STATEMENT IS FOR INFORMATION ONLY
IT IS NOT A WAGE DETERMINATION

A. Classifications, Grades, and Rates

Accounting Clerk III	01013	10.62
Cable Splicer	23125	17.26
Computer Operator I	03041	10.62
Computer Operator II	03042	11.88
Computer Operator III	03043	13.25
Computer Operator IV	03044	14.72
Computer Operator V	03045	16.30
Computer Programmer I	03171	11.88
Computer Programmer III	03173	18.01
Computer Systems Analyst II	03102	21.79
Documentation Preparation Clerk	01060	9.46
Electronic Technician, Maintenance I	23181	15.70
Electronic Technician, Maintenance II	23182	16.46
Electronic Technician, Maintenance III	23183	17.21
Engineering Technician V	29085	18.01
Film/Tape Librarian	01110	10.62
General Clerk III	01117	9.46
General Clerk IV	01118	10.62
Key Entry Operator I	01131	8.67
Secretary I	01311	10.62
Secretary II	01311	10.88
Secretary III	01313	13.25
Secretary IV	01314	14.72

Material Coordinator	21020	14.99
Peripheral Equipment Operator	03160	10.62
Personnel Assistant IV	01264	13.25
Photographer II	13072	11.88
Photographer III	13073	14.72
Photographer IV	13074	18.01
Service Order Dispatcher	01320	10.62
Supply Technician	01400	14.72
Switchboard Operator	01460	9.46
Telecommunications Mechanic I	23930	17.21
Telecommunications Mechanic II	23931	17.94
Classifications represented by the Communication Workers of America (CWA) Local Union 3905		
Data Entry Clerk I	GS-02	8.46
Data Entry Clerk II	GS-03	9.46
Document Coordinator	GS-06	13.25
Documentation Clerk II	GS-05	11.88
Editor Writer	GS-11	21.79
Illustrator II	GS-07	14.72
Illustrator III	GS-09	18.01
Inspector	GS-06	13.25
Lead Documentation Clerk	GS-06	13.25
Lead Graphics/Web Animation Illustrator	GS-10	19.83
Lead Illustrator III	GS-10	19.83
Lead Information Coordinator	GS-09	18.01
Lead Publications and Presentations Illustrator	GS-10	19.83

Lead Reproduction Technician	Wl-06	15.70
Reproduction Technician	WG-05	13.49
Supply Clerk	GS-04	10.62
Technical Typist	GS-03	9.46

Approved Conformed Classifications USDOL/Letter/Dated 04/02/98 (Position Descriptions are attached below)

Photographic Lab Technician I	GS-07	14.72
Photographic Lab Technician II	GS-09	18.01
Photographic Lab Technician, Lead	GS-10	19.83

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 three but less than fifteen years of service.

c. 4 hours of annual leave each week for an employee with fifteen or more years of service.

4. Retirement

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

(End of clause)

[END OF SECTION]

SECTION H

SPECIAL CONTRACT REQUIREMENTS

H.1 LISTING OF CLAUSES INCORPORATED BY REFERENCE

NOTICE: The following clauses are hereby incorporated by reference:

1852.204-74	Central Contractor Registration (May 2002)
1852.208-81	Restrictions on Printing and Duplicating (Oct 2001)
1852.223-75	Major Breach of Safety or Security (Feb 2002)
1852.242-72	Observance of Legal Holidays (Aug 1992)—Alternate I (Sep 1989)—Alternate II (Sep 1989)

(End of clause)

H.2 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 representatives of the Environmental Health Office, an office within the MSFC 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.3 LIMITATION OF FUTURE CONTRACTING (1852.209-71) (DEC 1988)

(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 an unfair competitive advantage.

(c) 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, or Government procurement sensitive information, and as long as such data or information remains proprietary, confidential, or sensitive, the Contractor shall protect such data or information from unauthorized use and disclosure and agrees not to use it to compete with other companies.

(End of clause)

H.4 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-3**).

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.5 NATIONAL LABOR RELATIONS ACT

The selected contractor shall be required to comply with the requirements of the National Labor Relations Act. Further, MSFC encourages contractors with collective bargaining agreements to become actively involved in the Area Labor-Management Relations Council sponsored jointly by the Marshall Space Flight Center and the Federal Mediation and Conciliations Service. Some of the incumbent contractor's and subcontractor's "service employees" are represented by the following collective bargaining representatives (unions):

- Affiliate of International Brotherhood of Teamsters, Chauffeurs, Warehousemen and Helpers of America, Local No. 639 (Contact Ronald Warren)
- Communications Workers of America, AFL-CIO, Local No. 3905, [Mary Layton, President, telephone (256) 539-6081]
- Communications Workers of America, AFL-CIO, Local No. 2185 (Contact Charles Bates, telephone (301) 562-8243)
- International Association of Machinist and Aerospace Workers, Local Lodge No. 2552 (Contact Homer Tipton, telephone (757) 466-7665)
- International Brotherhood of Electrical Workers, Local No. 543 (Contact Ralph Millette, telephone (760) 245-8147)
- International Brotherhood of Electrical Workers, Local No. 2088 (Contact Harry Judah, telephone (321) 637-7980 or (321) 637-7957)

The Government contracting activity recognizes the rights afforded these individuals by the National Labor Relations Act. Therefore, the successful contractor agrees to maintain practices that are congruous with these mandatory provisions of law.

(End of clause)

H.6 RESERVE GATE PROCEDURES/ONE-GATE PLAN

In the event of a labor dispute, the Government may restrict the ingress and egress of the contractor's and subcontractor's employees and suppliers to a specific gate. The contractor agrees to have the employees re-badged (if necessary) and to direct them and the suppliers to utilize only the gate designated in the reserve gate/one-gate procedures.

(End of clause)

H.7 EXPORT LICENSES (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, other NASA Centers as appropriate, 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.8 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.9 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 therefor;

- 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.10 HAZARDOUS MATERIAL REPORTING (MSFC 52.223-91)(FEB 2001)

(a) If during the performance of this contract, the contractor / subcontractor brings any hazardous materials (hazardous as defined under the latest version of the Federal Standard No. 313, including revisions adopted during the term of the contract) on-site to Marshall Space Flight Center, a completed MSFC Form 4099 (MSFC Chemical Inventory Addition) shall be immediately forwarded to the Contracting Officer (or address on 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 the 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.11 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.4 Allowable Items of Cost
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 New Technology
NASA Contractor Financial Management Reporting
Travel Outside of the United States
G.3 Designation of New Technology Representative and Patent Representative
G.4 Contractor Employee Badging and Employment Termination Clearance
G.7 Financial Reporting of NASA Property in the Custody of Contractors
G.8 Government Provided/Furnished Property
G.9 Contractor Accountable Onsite Government Property
G.10 List of Installation-Provided Property and Services
G.11 Statement of Equivalent Rates for Federal Hires
H.1 Restrictions on Printing and Duplicating
Observance of Legal Holidays
Major Breach of Safety or Security
H.2 Asbestos Material
H.3 Limitation of Future Contracting
H.4 Labor Provisions
H.5 National Labor Relations Act
H.6 Reserve Gate Procedures/ One-Gate Plan
H.7 Export Licenses
H.9 Excluded Functions and Responsibility
H.10 Hazardous Material Reporting
H.12 Safety Performance Evaluation
I.1 Option to Extend the Term of the Contract
Emergency Evacuation Procedures
Small Business Subcontract Reporting
Safety and Health
Frequency Authorization

(End of clause)

H.12 SAFETY PERFORMANCE EVALUATION

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

PERFORMANCE RECOGNITION

Score	≥ 36 points (Annual Score)	≥ 28 points (Annual Score)	≤ 16 points (Quarterly Score)
LTIR	And ≤ 50% of the LTIR for the applicable SIC rate **Exception**: Contractors with less than 100 employees located onsite MSFC shall have no lost time injuries during the past year.	And < the applicable SIC rate **Exception**: Contractors with less than 100 employees located onsite MSFC shall have no more than one lost time injury during the past year.	Or > the applicable SIC rate **Exception**: Contractors with less than 100 employees located onsite MSFC. A Level III rating will be given when greater than two lost time injuries are reported during the past year.
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 Recordable Mishap (NPG 8621.1), 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 PERFORMANCE EVALUATION

1. CONTRACTOR RESPONSIBILITY The Contractor is responsible for maintaining an effective safety program during the course of the contract with a goal to achieve a world-class program within the term of the contract. The Contractor will ensure that the requirements of the MSFC approved Contractor's Safety 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 a quarterly self-evaluation based on these criteria. The CO/COTR, in coordination with the MSFC Safety Office, will validate the Contractor's self-evaluation. Every quarter, the agreed score will be used to assess performance appropriately—positive or negative.

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

2. EVALUATION CRITERIA Contractor self-evaluation and Government validation will be based on the applicable elements and subelements 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
(ELEMENT 1)

Documented Safety Policy And Goals
Safety Committees
Safety Meetings
Subcontractor Safety
Resources
Access to Professional Safety Staff
Accountability (Disciplinary Program)
Annual Evaluation

System And Worksite Hazard Analysis
(ELEMENT 2)

Complete And Update Baseline Surveys
Perform Analysis Of New Work.
Job Hazard Analysis/ Process Review
Self-Inspections
Employee Hazard Reporting
Mishap/Close Call Investigation
Injury/Illness Rates

Hazard Prevention and Control
(ELEMENT 3)

Hazard Identification Process
Facility and Equipment Maintenance
Emergency Program and Drills
Emergency Medical Care Program
Personal Protective Equipment
Health Program

Safety and Health Training
(ELEMENT 4)

Employee
Supervisor
Manager

3. PERFORMANCE RECOGNITION

Contractor performance will be recognized as follows:

- **Level I**-Annual rating score of $\geq$ 36 based on the average of the quarterly assessment scores, and a Lost-Time Incident Rate (LTIR) <=50% of the LTIR for the applicable SIC rate. Have no lost time injuries during the past year.

  Formal award with public recognition. Appropriate past performance referrals provided.

  Exception: Contractors with less than 100 employees located on site at MSFC.

- **Level II**-Annual rating score of $\geq$ 28 based on the average quarterly assessment score, and a Lost-Time Industrial Classification (SIC) 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.

  Formal letter of commendation. Will impact contract evaluation and past performance referrals.

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

• **Level III**-Quarterly rating score of ≤ 16 or a Lost Time Incident Rate (LTIR) > the Standard Industrial Classification (SIC) rate. **Exception**: *Contractors with less than 100 employees located onsite MSFC.* A Level III rating will be given to a contractor <u>having greater than two</u> lost time injuries during the past year.	*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.***
• If contractor's Safety Performance evaluation does not fall within the above categories.	*No recognition.*

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

4. CONTRACTOR ACCOUNTABILITY FOR MISHAPS

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

5. EVALUATION PROCESS

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

The evaluation process will include these steps:

- Contractor to conduct quarterly self-assessment and assign numerical score to each element. (ATTACHMENT 2)
- Contractor self assessments will address compliance with their approved Safety and Health Plan.
- Contractor to have self-assessment validated by CO/ COTR and S&MA Office.
- On an annual basis, the Contracting Officer will apply contract incentives/recognition or consequences based on the average quarterly scores. The Contracting Officer will make a determination on a quarterly basis for items requested in paragraph 6 that are not reported. (Also, see paragraph 7 below.)

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

6. SAFETY METRIC REPORTING

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

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

7. FAILURE TO REPORT

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

Safety Health (S) Management Implementation Guide and Assessment Matrix Attachment 1

Score	Commitment and Involvement (Element 1)		Worksite System and Analysis (Element 2)	Hazard Prevention and Control (Element 3)	Safety and Health Training (Element 4)
	A. Management	B. Employee			
10	Benchmarking indicates "best in Class." In areas of visible management leadership, responsibility/accountability, meaningful metrics, and incentive/recognition systems.	Employees fully involved, safety committees functioning well, is a complete behavior process functioning at least one year, employees involved in process planning and risk assessment.	All subelements fully in place and functioning well for at least one year.	All programs and subelements fully functioning for one year. Strong professional support.	All training processes functioning, all levels of personnel trained to identified needs, management training ongoing.
9	All subelements are in place and functioning well, but have as yet to reach full maturity.	All processes functioning but for limited time, employees involved to great extent.	All subelements in place, employees actively participating.	All programs and subelements in place and functioning.	All training processes established, management initial training complete.
8	One subelement not fully in place but all are being implemented.	Most processes in place, employee involvement growing.	All subelements functioning, employee participation growing.	At least five subelements functioning and one in final stage of implementation.	Most personnel trained to identified needs, training recordkeeping and recall system functioning.
7	Two subelements not fully implemented. Implementation in process on all elements. Employee participation and commitment widespread.	Process activities expanding through organization. Committees and teams functioning.	At least five subelements functioning and remainder established.	At least four subelements functioning, remaining two developing.	Management and supervisor training in process, specialized training in process.
6	All subelements in process or in place. Strong management leadership and commitment begun, metric systems in place, resourcing appropriate.	Employee representatives functioning, joint committees functioning, participating in risk assessment and accident investigation.	At least four subelements functioning and remaining three in process, employee participation beginning to spread through organization.	Medical and safety programs strengthening. Emergency preparedness program established and exercised.	Management training in process developed, supervisor training developed, training recordkeeping and recall system developed.
5	Management commitment and leadership accepted by workers, worker participation and commitment begun, metric system.	Employee representatives appointed/elected, committees beginning to perform functions (investigation, analysis, process improvement).	All subelements established, employees beginning to participate.	Rules written, medical and safety programs developing Personal Protective Equipment adequate.	Training template completed for all personnel, training needs identified, process development begun, recordkeeping and recall system being developed.
4	Management commitment and leadership flowing down to workers, metric systems being developed, incentive/recognition system in process.	All processes being established, involvement and awareness enhancement growing.	At least five subelements initiated including self-assessment, hazard reporting, 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 subelements, at least two subelements beginning to function.	Personal protective equipment requirements established and being enforced, plans developed for other elements.	Training needs evaluation begun, training template forms developed.
1	Subelements have not been established to any significant extent, management leadership is lacking, little or no employee participation	No committees, little or no employee involvement, no process, little process planning.	Two or fewer subelements established, no self-inspection, shallow accident investigation process.	Few or no programs or subelements established, few written rules, limited enforcement.	Training needs not established, no management training, limited or no supervisor training.

ATTACHMENT 2
SAFETY PERFORMANCE SELF-EVALUATION

Contractors shall conduct a quarterly self-evaluation based on the applicable elements and sub-elements of the MSFC safety program as listed below. Specific criteria are shown on ATTACHMENT 1 entitled "Safety Health Management Implementation Guide and Assessment Matrix." Element 1 has a management and employee component. These are simply averaged to obtain the score for Element 1. The result should be carried to the second decimal point. The score for each element should be shown below along with explanatory comments for each element.

Element 1
Management Commitment and Employee Involvement
Documented Safety Policy and Goals
Safety Committees
Safety Meetings
Subcontractor Safety
Resources
Access to Professional Staff
Annual Evaluation

Element 2
System and Worksite Hazard Analysis
Complete and Update Baseline Surveys
Perform Analysis of New Work
Job Hazard Analysis/Process Review
Self-Inspections
Employee Hazard Reporting
Mishap/Close Call Investigation
Injury/Illness Rates

Element 3
Hazard Prevention and Control
Hazard Identification Process
Facility Equipment Maintenance
Emergency Program and Drills
Emergency Medical Care Program
Personal Protective Equipment
Health Program

Element 4
Safety and Health Training
Employee
Supervisor
Manager

Contractor:_____ **Contract #**_____ **Date of Evaluation Period** _____

Signature of Authorized Contract Representative:_____

Element 1:
Management Commitment_____ Employee Involvement_____ Combined Average_____

Comments:_____
_____
_____
_____

Element 2:
System and Worksite Hazard Analysis_____

Comments:_____
_____
_____
_____

Element 3:
Hazard Prevention and Control_____

Comments:_____
_____
_____
_____

Element 4:
Safety and Health Training_____

Comments:_____
_____
_____
_____

Total Score_____

Comments/ Validation By:

Comments:_____
_____
_____
_____

_____
Contracting Officer

Comments:_____
_____
_____
_____

_____
COTR

Comments:_____
_____
_____
_____

_____
Representative/S&MA Office

(End of Clause)
[END OF SECTION]

SECTION I

CONTRACT CLAUSES

I.1 CLAUSES INCORPORATED BY REFERENCE (52.252-2) (JUN 1988)

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.

(End of clause)

NOTICE: The following clauses are hereby incorporated by reference:

A. FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1) CLAUSES

Clause No.	Title
52.202-1	Definitions (Dec 2001)
52.203-3	Gratuities (Apr 1984)
52.203-5	Covenant Against Contingent Fees (Apr 1984)
52.203-6	Restrictions on Subcontractor Sales to the Government (Jul 1995)
52.203-7	Anti-Kickback Procedures (July 1995)
52.203-8	Cancellation, Rescission, and Recovery of Funds for Illegal or Improper Activity (Jan 1997)
52.203-10	Price or Fee Adjustment for Illegal or Improper Activity (Jan 1997)
52.203-12	Limitation on Payments to Influence Certain Federal Transactions (Jun 1997)
52.204-1	Approval of Contract (Dec 1989) [Insert "MSFC Procurement Officer"]
52.204-2	Security Requirements (Aug 1996)
52.204-4	Printed or Copied Double-Sided on Recycled Paper (Aug 2000)
52.209-6	Protecting the Government's Interest when Subcontracting with Contractors Debarred, Suspended, or Proposed for Debarment (Jul 1995)
52.211-15	Defense Priority and Allocation Requirements (Sep 1990)
52.215-2	Audit - Negotiation (Jun 1999)
52.215-8	Order of Precedence- Uniform Contract Format (Oct 1997)
52.215-9	Changes or Additions to Make-or-Buy Program (Oct 1997)

Clause No.	Title
52.215-14	Integrity of Unit Prices (Oct 1997)
52.215-15	Pension Adjustments and Asset Reversions (Dec 1998)
52.215-17	Waiver of Facilities Capital Cost of Money (Oct 1997)
52.215-21	Requirements for Cost or Pricing Data or Information Other Than Cost or Pricing Data-Modifications (Oct 1997)
52.216-7	Allowable Cost and Payment (Feb 2002)
52.216-18	Ordering (Oct 1995)[Insert "effective date of the contract" and "expiration date of the contract"]
52.216-19	Order Limitations (Oct 1995) [Insert "$100" in (a), "TBD" in (a) and (b), and "TBD" in (c)]
52.216-21	Requirements (Oct 1995) [Insert "expiration date of the contract"]
52.217-9	Option to Extend the Term of the Contract (Mar 2000) [Insert "the period of performance of this contract" and "60 " in paragraph (a) and "5 years" in paragraph (c)]
52.219-8	Utilization of Small Business Concerns and Small Disadvantaged Business Concerns (Oct 2000)
52.219-9	Small Business Subcontracting Plan (Jan 2002)
52.219-16	Liquidated Damages -- Subcontracting Plan (Jan 1999)
52.219-23	Notice of Price Evaluation Adjustment for Small Disadvantaged Business Concerns (May 2001)[Insert "10%" in paragraph (b)(1)]
52.219-24	Small Disadvantaged Business Participation Program- Targets (Oct 2000)
52.219-25	Small Disadvantaged Business Participation Program - Disadvantaged Status and Reporting (Oct 1999)
52.222-1	Notice to the Government of Labor Disputes (Feb 1997)
52.222-2	Payment for Overtime Premiums (Jul 1990) [Insert "See Section B" in paragraph (a)]
52.222-3	Convict Labor (Aug 1996)
52.222-4	Contract Work Hours and Safety Standards -- Overtime Compensation (Sep 2000)
52.222-21	Prohibition of Segregated Facilities (Feb 1999)
52.222-26	Equal Opportunity (Apr 2002)
52.222-35	Equal Opportunity for Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans (Dec 2001)
52.222-36	Affirmative Action for Workers with Disabilities (Jun 1998)

Clause No.	Title
52.222-37	Employment Reports on Special Disabled Veterans, Veterans of the Vietnam Era , and Other Eligible Veterans (Dec 2001)
52.222-38	Compliance with Veterans' Employment Reporting Requirements (Dec 2001)
52.222-41	Service Contract Act of 1965, As Amended (May 1989)
52.223-5	Pollution Prevention and Right-to-Know Information (Apr 1998)
52.223-6	Drug-Free Workplace (May 2001)
52.223-9	Estimate of Percentage of Recovered Material Content for EPA-Designated Products (Aug 2000) [Insert "PS31-J/Contracting Officer"]
52.223-10	Waste Reduction Program (Aug 2000)
52.223-14	Toxic Chemical Release Reporting (Oct 2000)
52.224-1	Privacy Act Notification (Apr 1984)
52.224-2	Privacy Act (Apr 1984)
52.225-1	Buy American Act- Supplies (May 2002)
52.225-13	Restrictions on Certain Foreign Purchases (Jul 2000)
52.227-1	Authorization and Consent (Jul 1995)
52.227-2	Notice and Assistance Regarding Patent and Copyright Infringement (Aug 1996)
52.227-14	Rights in Data -- General (Jun 1987) -- As Modified by NASA FAR Supplement 1852.227-14
52.227-16	Additional Data Requirements (Jun 1987)
52.228-7	Insurance – Liability to Third Persons (Mar 1996)
52.230-2	Cost Accounting Standards (Apr 1998)
52.230-6	Administration of Cost Accounting Standards (Nov 1999)
52.232-9	Limitation on Withholding of Payments (Apr 1984)
52.232-17	Interest (Jun 1996)
52.232-18	Availability of Funds (Apr 1984)
52.232-22	Limitation of Funds (Apr 1984)
52.232-23	Assignment of Claims (Jan 1986)
52.232-25	Prompt Payment (Feb 2002)
52.232-34	Payment by Electronic Funds Transfer-Other than Central Contractor Registration (May 1999)
52.233-1	Disputes (Jul 2002) -- Alternate I (Dec 1991)
52.233-3	Protest After Award (Aug 1996) -- Alternate I (Jun 1985)
52.237-2	Protection of Government Buildings, Equipment, and Vegetation (Apr 1984)
52.237-3	Continuity of Services (Jan 1991)
52.239-1	Privacy or Security Safeguards (Aug 1996)
52.242-1	Notice of Intent to Disallow Costs (Apr 1984)
52.242-3	Penalties for Unallowable Costs (May 2001)

Clause No.	Title
52.242-4	Certification of Final Indirect Cost (Jan 1997)
52.242-10	F.o.b Origin- Government Bills of Lading or Prepaid Postage (Apr 1984)
52.242-13	Bankruptcy (Jul 1995)
52.243-2	Changes -- Cost-Reimbursement (Aug 1987) -- Alternate II (Apr 1984)
52.244-2	Subcontracts (Aug 1998) -- Alternate I (Aug 1998)[Insert "See Clause H.8" in (e) and "N/A" in (k)]
52.244-5	Competition in Subcontracting (Dec 1996)
52.245-5	Government Property (Cost-Reimbursement, Time-and-Materials, or Labor-Hour Contracts) (Jan 1986) DEVIATION (Jul 1995)
52.246-25	Limitation of Liability - Services (Feb 1997)
52.247-1	Commercial Bill of Lading Notations (Apr 1984)
52.247-67	Submission of Commercial Transportation Bills to the General Services Administration for Audit (Jun 1997)
52.249-6	Termination (Cost-Reimbursement) (Sep 1996)
52.249-14	Excusable Delays (Apr 1984)
52.251-1	Government Supply Sources (Apr 1984)
52.251-2	Interagency Fleet Management System Vehicles and Related Services (Jan 1991)
52.252-6	Authorized Deviations in Clauses (Apr 1984)
52.253-1	Computer Generated Forms (Jan 1991)

B. NASA/FAR SUPPLEMENT (48 CFR CHAPTER 18) CLAUSES

Clause No.	Title
1852.204-75	Security Classification Requirements (Sep 1989)[Insert "Top Secret" and "J-11"]
1852.204-76	Security Requirements for Unclassified Information Technology Resources (Jul 2002)[Insert "45" in paragraph (c)]
1852.215-84	Ombudsman (Jun 2000)[Insert "Axel Roth, DE01, George C. Marshall Space Flight Center, MSFC, AL 35812, telephone (256) 544-0451, fax (256) 544-7920, email Axel.Roth-1@nasa.gov"]
1852.216-89	Assignment and Release Forms (Jul 1997)
1852.219-74	Use of Rural Area Small Businesses (Sep 1990)
1852.219-75	Small Business Subcontracting Reporting (May 1999)
1852.219-76	NASA 8 Percent Goal (Jul 1997)
1852.219-77	NASA Mentor-Protégé' Program (May 1999)
1852.223-70	Safety and Health (Apr 2002)

Clause No.	Title
1852.223-71	Frequency Authorization (Dec 1988)
1852.227-86	Commercial Computer Software - Licensing (Dec 1987)
1852.227-87	Transfer of Technical Data Under Space Station International Agreements (Apr 1989)
1852.228-75	Minimum Insurance Coverage (Oct 1988)
1852.237-70	Emergency Evacuation Procedures (Dec 1988)
1852.243-71	Shared Savings (Mar 1997)
1852.245-70	Contractor Requests for Government-Owned Equipment (Jul 1997)

(End of clause)

I.2 REPRESENTATIONS, CERTIFICATIONS, AND OTHER STATEMENTS OF OFFERORS OR QUOTERS INCORPORATED BY REFERENCE (MSFC--52.252-91) (AUG 1988)

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

(End of clause)

I.3 FULL TEXT CLAUSES (MSFC -- 52.252-90) (AUG 1988)

The following clauses are attached hereto in full text:

Clause No.	Title
52.222-47	Service Contract Act (SCA) Minimum Wages and Fringe Benefits (May 1989)

(End of clause)

52.222-47 SERVICE CONTRACT ACT (SCA) MINIMUM WAGES AND FRINGE BENEFITS (MAY 1989)

An SCA wage determination applicable to this work has been requested from the U.S. Department of Labor. If an SCA wage determination is not incorporated herein, the bidders/offerors shall consider the economic terms of the collective bargaining agreement (CBA) between the incumbent Contractor, Computer Sciences Corporation and the Communications Workers of America AFL-CIO (union). If the economic terms of the collective bargaining agreement or the collective bargaining agreement itself is not attached to the solicitation, copies can be obtained from the Contracting Officer. Pursuant to Department of Labor Regulation, 29 CFR 4.1b and paragraph (g) of the clause at 52.222-41, Service Contract Act of 1965, as amended, the economic terms of that agreement will apply to the contract resulting from this solicitation, notwithstanding the absence of a wage determination reflecting such terms, unless it is determined that the agreement was not the result of arm's length negotiations or that after a hearing pursuant to section 4(c) of the Act, the economic terms of the agreement are substantially at variance with the wages prevailing in the area.

(End of clause)

[END OF SECTION]

ATTACHMENT J
LIST OF ATTACHMENTS

ATTACHMENT	DOCUMENT	PAGES
ATTACHMENT J-1	Performance Work Statement	J-1-1 – J-1-89
ATTACHMENT J-2	Data Procurement Document	J-2-1 – J-2-45
ATTACHMENT J-3	Wage Determinations	J-3-1– J-3-162
ATTACHMENT J-4	Performance Measurement Standards	J-4-1 – J-4-83
ATTACHMENT J-5	UNITeS CPAF Evaluation Plan	J-5-1 – J-5-25
ATTACMENT J-6	Make or Buy Plan	J-6-1- J-6-TBD
ATTACHMENT J-7	Small Business Subcontracting Plan	J-7-1- J-7-TBD
ATTACHMENT J-8	Government-Furnished Property	J-8-1
ATTACHMENT J-9	Installation-Provided Property And Services	J-9-1 – J-9-2
ATTACHMENT J-10	Applicable Regulations and Procedures	J-10-1 – J-10-19
ATTACHMENT J-11	DoD Security Classification Specification (DD Form 254)	J-11-1 – J-11-2
ATTACHMENT J-12	Safety and Health Plan	J-12-1-J-12-TBD
ATTACHMENT J-13	Acronyms and Abbreviations	J-13-1- J-13-18
ATTACHMENT J-14	Requirements Labor Rates	J-14-1
ATTACHMENT J-15	PWS Cost Levels	J-15-1 – J-15-2
SECTION K	Representations, Certifications, and Other Statements of Offerors or Respondents	K-1 – K-17
SECTION L	INSTRUCTIONS, CONDITIONS, AND NOTICES TO OFFERORS	L-1 – L-16
SECTION M	EVALUATION FACTORS FOR AWARD	M-1 – M-5
ATTACHMENT A	MSFC UNITeS Supplemental Instructions	A-1 – A-43
ATTACHMENT B	Cost Forms	B-1 – B-35
ATTACHMENT C	Background and Historical	C-1 – C-183

DATA PROCUREMENT DOC.
NO. ISSUE
974 **RFP**

RFP 03-HAW-001

CONTRACT/RFP

EXHIBIT NUMBER

J-2

ATTACHMENT NUMBER

Unified NASA Information Technology Services (UNITeS)

PROJECT/SYSTEM

DATA PROCUREMENT DOCUMENT

Contractor

CONTRACTOR

April 11, 2003

DATE

National Aeronautics and
Space Administration

MSFC - Form 3461 (Rev September 1989)

National Aeronautics and Space Administration **DOCUMENT CHANGE LOG**					DATA PROCUREMENT DOC. NO. ISSUE **974** **RFP**	
INCORPORATED REVISIONS OUTSTANDING REVISIONS				AS OF: 04-11-03	SUPERSEDING:	PAGE:
AUTHORITY	PORTION AFFECTED - PAGE NO./NO.				REMARKS	
	INTRO	SGR	DRL	DRD		

MSFC - Form 3461-1 (Rev August 1970)

National Aeronautics and Space Administration **PAGE REVISION LOG**		DATA PROCUREMENT DOC. NO. ISSUE **974** **RFP**	
NOTE: The current revision is denoted by a vertical line in the outer margin adjacent to the affected text.	AS OF: 04-11-03	SUPERSEDING:	PAGE:

INSERT LATEST REVISED PAGES. DISCARD SUPERSEDED PAGES.

ITEM	PAGE	STATUS	ITEM	PAGE	STATUS

MSFC - Form 3461-2 (Rev August 1970)

1.0 INTRODUCTION

1.1 Scope: Subject to the Rights in Data clause, this Data Procurement Document (DPD) sets forth the data requirements in each Data Requirements Description (DRD) and shall govern that data required by the DPD for the contract. The contractor shall furnish data defined by the DRD's listed on the Data Requirements List (DRL) by category of data, attached hereto, and made a part of this DPD. Such data shall be prepared, maintained, and delivered to MSFC 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) regulation or clause, the regulation will take precedence over the DPD, per FAR 52.215-8.

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

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

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

1.2.3 Data Requirements Descriptions (DRD's)

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

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

CATEGORY SYMBOL	DESCRIPTION
CD	Contractual Data
CM	Configuration Management
LS	Logistics/Support
MA	Management
RM	Reliability and Maintainability
SA	Safety

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

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

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

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

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

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

TYPE	DESCRIPTION
1	All issues and interim changes to those issues require written approval from the requiring organization before formal release for use or implementation.
2	MSFC reserves a time-limited right to disapprove in writing any issues and interim changes to those issues. Data shall be submitted to the procuring activity for review not less than 45 calendar days prior to its release for use or implementation. The contractor shall clearly identify the release target date in the "submitted for review" transmittal. If the contractor has not been notified of any disapproval prior to the release target date, the data shall be considered approved. To be an acceptable delivery, disapproved data shall be revised to remove causes for the disapproval before its release.
3	These data shall be delivered by the contractor as required by the contract and do not require MSFC approval. However, to be a satisfactory delivery, the data must satisfy all applicable contractual requirements.
4	These data are produced or used during performance of the contract and are retained by the contractor. They shall be delivered when MSFC requests it according to instructions in the request. The contractor shall maintain a list of these data and shall furnish copies of the list to MSFC 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 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.

2.0 STATEMENT OF GENERAL REQUIREMENTS

2.1 Applicable 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. References to documents other than applicable documents in the data requirements of this DPD may sometimes be utilized. 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 MSFC.

2.3 Distribution

2.3.1 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.

2.3.2 Electronic submission of data deliverables is preferred. The preferred formats include Microsoft Word, Excel, PowerPoint, or Adobe Acrobat PDF as appropriate. The software versions shall be confirmed prior to submittals. Marshall Policy Directive (MPD) 2210.1 specifies the requirements for utilizing the Documentation Repository. Electronic data submittals to the Repository shall be coordinated with the Repository. MSFC has the capability of receiving electronic data files for importing into the MSFC Documentation Repository system. 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 will be printed on both sides; blank pages will be avoided when possible.
f. Oversize pages will be avoided when possible, but if necessary will 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 MSFC by the contractor and, if applicable, as approved by MSFC. This 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, will be marked "PRELIMINARY PENDING MSFC APPROVAL," and once approved shall be reissued with "APPROVED BY MSFC" and the date and approval authority annotated on the cover.

2.7 Reference to Other Documents in Data Submittals: All referenced documents shall be made readily available to the cognizant MSFC organization upon request. The contractor should make sure that the references are available to MSFC in a manner which does not incur delays in the use of the response 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 2.6 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 MSFC, 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 will identify the revision status of each page with the revision symbol. This list shall follow the table of contents in each document. The line or lines revised 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 will be determined by the Contracting Officer.

3.0 DPD MAINTENANCE PROCEDURES

3.1 MSFC-Initiated Change: New and/or revised data requirements will be incorporated by contract modification to which the new or revised portion of the DPD will 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 MSFC 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 MSFC for approval.

3.3 DPD Change Procedures

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

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

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

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

3.4 DPD Reissues

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

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

UNIFIED NASA INFORMATION TECHNOLOGY SERVICES (UNITeS)

Data Requirements List

DRD	DATA TYPE	TITLE	OPR
CD – Contractual Data			
974CD-001	2	Information Technology Security Plan	AD33
974CD-002	3	Employee Listing	PS10
974CD-003	3	Technology Reports (NFS 1852.227-70)	CD30
CM - Configuration Management			
974CM-001	2	Configuration Management Plan	ED43
LS – Logistics Support			
974LS-001	2	Government Property Management Plan	AD41
MA – Management			
974MA-001	1	Management Plan	AD30
974MA-002	2	Risk Management Plan, Analysis, and Tracking Reports	QS10
974MA-003	2	Major Information Systems Portfolio	AD30
974MA-004	2	Work Breakdown Structure (WBS) and WBS Dictionary	RS40/VS10
974MA-005	3	Financial Management Report (533M)	RS40
974MA-006	See DRD	Reports	AD30
974MA-007	See DRD	Documentation	AD30
974MA-008	3	Cost Reports	AD30
974MA-009	2/3	Export Control Plan and Reports	AD30
974MA-010	3	Contractor Self-Assessment Report	AD30
974MA-011	2	Certification of NISN Systems Readiness	AD30
RM – Reliability and Maintainability			
974RM-001	1	Operability/Maintainability Plan	AD30
SA – Safety			
974SA-001	2	On-site Safety and Health Plan	AD02/QS50/AD10
974SA-002	3	Mishap and Safety Statistics Reports	QS50

DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.**: 974 **ISSUE**: RFP
2. **DRD NO.**: **974CD-001**
3. **DATA TYPE**: 2
4. **DATE REVISED**:
5. **PAGE**: 1/1
6. **TITLE**: Information Technology Security Plan

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

8. **OPR**: AD33 9. **DM**: AD30

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

11. **INITIAL SUBMISSION**: Draft with proposal

12. **SUBMISSION FREQUENCY**: Final 45 days after effective date of the contract

13. **REMARKS**: The information technology security plan(s) must be consistent with and further detail the approach contained in the offeror's proposal or sealed bid that resulted in the award of this contract and in compliance with the requirements stated in NFS 1852.204-76.
14. **INTERRELATIONSHIP**: PWS paragraphs 2.7.2, 4.1.3.3, 4.2.1.2, 4.3.3.d, 5.5.g

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

15.2 **APPLICABLE DOCUMENTS**:

NPG 2810.1	*Security of Information Technology*
NFS 1804.470-3	*Security Plan for unclassified Federal Information Technology systems*
NFS 1852.204-76	*Security Requirements for Unclassified Information Technology Resources*

15.3 **CONTENTS**: The Information Technology Security Plan shall meet the requirements of the applicable documents in 15.2 and document how the contractor and subcontractor personnel will utilize, in a secure manner commensurate with the sensitivity of the information involved, those Federal computer systems and software applications managed by others. The plan shall describe the contractor's processes for implementing information security including personnel background screening, personnel awareness and training, information protection, and security incident response.

Additionally, a separate system-level Information Technology System Security Plan shall be prepared for each Federal general support computer system or major software application managed by the contractor and/or subcontractor personnel in the performance of this contract. The Information Technology System Security Plan(s) shall meet the requirements of the applicable documents in 15.2. NPG 2810.1 defines "general support computer systems" and "major applications" and provides plan requirements for both.

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.**: 974 **ISSUE**: RFP
2. **DRD NO.**: **974CD-002**
3. **DATA TYPE**: 3
4. **DATE REVISED**:
5. **PAGE**: 1/1
6. **TITLE**: Employee Listing
7. **DESCRIPTION/USE**: To assist NASA in conducting contractor floor checks, IT security training and screening.
8. **OPR**: PS10
9. **DM**: AD30
10. **DISTRIBUTION**: Per Contracting Officer's letter
11. **INITIAL SUBMISSION**: Fifteenth of month following first month of operation after effective date of the contract
12. **SUBMISSION FREQUENCY**: Update quarterly. If deemed necessary by the Contracting Officer, the contractor shall submit the list at times other than stated. The list shall be maintained online on the MICS.
13. **REMARKS**: Reference is made to FAR 52.215-2, *Federal Acquisition Regulation* Clause: Audit - Negotiation.
14. **INTERRELATIONSHIP**: PWS paragraph 2.4.c
15. **DATA PREPARATION INFORMATION**:

15.1 **SCOPE**: The Employee Listing shall provide NASA with a list of all contractor employees working under this contract and their designated locations.

15.2 **APPLICABLE DOCUMENTS**: None

15.3 **CONTENTS**: The list shall include the following information for each employee: employee's name, position, location (building/room number), shift assignment, U.S. citizenship status, supervisor's name, and supervisor's location (building/room number), computer system administrator, computer access level and IT security screened date. For each employee the list shall indicate if the employee is a "computer system administrator." For employee designated as "computer system administrator", indicate the platform type they administer (e.g., Window, UNIX, and Mac). The list shall indicate computer access level for each employee (privileged, limited privileged and non-privileged).

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

15.5 **MAINTENANCE**: None required

DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.**: 974 **ISSUE**: RFP
2. **DRD NO.**: **974CD-003**
3. **DATA TYPE**: 3
4. **DATE REVISED**:
5. **PAGE**: 1/3
6. **TITLE**: Technology Reports (NFS 1852.227-70)

7. **DESCRIPTION/USE**: Provides NASA with technical information concerning any invention, discovery, improvement, or innovation made by a contractor in the performance of work under this contract for the purpose of disseminating this information to obtain increased use. Also, to provide NASA with data to review for possible patentable items.

8. **OPR**: CD30 9. **DM**: AD30

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

11. **INITIAL SUBMISSION**: Technology Reporting Plan: Upon Contracting Officer's request.
Disclosure of Invention and New Technology (NASA Form 1679): Within 2 months of identification of reportable item.
Interim NASA-MSFC Technology Report (MSFC Form 4204): 12 months from the date of the contract.

12. **SUBMISSION FREQUENCY**: Technology Reporting Plan: Upon Contracting Officer's request.
Disclosure of Invention and New Technology (NASA Form 1679): For each reportable item.
Interim NASA-MSFC Technology Report (MSFC Form 4204): Every 12 months.
Final NASA-MSFC Technology Report (MSFC Form 4204): Three months after completion of contracted work.

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

15. **DATA PREPARATION INFORMATION**:

15.1 **SCOPE**: The Technology Reports include technical detail as is necessary to identify and fully describe a "Reportable Item". Per NFS 1852.227-70, "Reportable Item" means any invention, discovery, improvement, or innovation of the contractor, whether or not the same is or may be patentable or otherwise protectable under Title 35 of the United States Code, conceived or first actually reduced to practice in the performance of any work under this contract or in the performance of any work that is reimbursable under any clause in this contract providing for reimbursement of costs incurred prior to the effective date of this contract.

15.2 **APPLICABLE DOCUMENTS**
NFS 1852.227-70 New Technology Clause

15.3 **CONTENTS**: The Technology Reports consist of:

a. Disclosure of Invention and New Technology (Including Software): In accordance with NFS 1852.227-70 (e)(2), the disclosure to the agency shall be in the form of a written report and shall identify the contract under which the reportable item was made and the inventor(s) or innovator(s). It shall be sufficiently complete in technical detail to convey a clear understanding, to the extent known at the time of the disclosure, of the nature, purpose, operation, and physical, chemical, biological, or electrical characteristics of the reportable item. The disclosure shall also identify any publication, on sale, or public use of any subject invention and whether a manuscript describing such invention has been submitted for publication and, if so, whether it

DRD Continuation Sheet

TITLE: Technology Reports (NFS 1852.227-70) **DRD NO.**: **974CD-003**
DATA TYPE: 3 **PAGE**: 2/3

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

has been accepted for publication at the time of disclosure. In addition, after disclosure to the agency, the Contractor will promptly notify the agency of the acceptance of any manuscript describing a subject invention for publication or of any on sale or public use planned by the Contractor for such invention. This reporting requirement may be met by completing NASA Form 1679 (February 1998). Use of this form is preferred; however, if the form is not used the following information should be provided in order to meet the reporting requirement:

1. Descriptive title.
2. Innovator(s) name(s), title(s), phone number(s), and home address(es).
3. Employer when innovation made (name and division).
4. Address (place of performance).
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).

DRD Continuation Sheet

TITLE: Technology Reports (NFS 1852.227-70) **DRD NO.**: **974CD-003**
DATA TYPE: 3 **PAGE**: 3/3

15. DATA PREPARATION INFORMATION (CONTINUED):

b. Interim NASA-MSFC Technology Report: This report shall consist of a listing of reportable items for the reporting period or certify that there are none. This report shall also contain a list of subcontracts containing a patent rights clause or certification that there were no such subcontracts. 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 reportable items for the contract duration or certification that there are none. This report shall also contain a list of subcontracts containing a patent rights clause or certification that there were no such subcontracts. 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. Subcontracts: The contractor shall provide copies of subcontracts containing a patent rights clause upon Contracting Officer's request.

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.**: 974 **ISSUE**: RFP
2. **DRD NO.**: **974CM-001**
3. **DATA TYPE**: 2
4. **DATE REVISED**:
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.

8. **OPR**: ED43 9. **DM**: AD30

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

11. **INITIAL SUBMISSION**: 60 days after effective date of the contract

12. **SUBMISSION FREQUENCY**: One time, revise as required

13. **REMARKS**: Reference is made to MIL-STD-973, *Configuration Management* (April 17, 1992, and Interim Notices 1 through 3, January 13, 1995). NOTE: Copies of MIL-STD-973 may be obtained through the NASA Technical Standards website (Click "Public Access").
14. **INTERRELATIONSHIP**: PWS paragraphs 3.9.3, 5.10.3

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**: None

15.3 **CONTENTS**: The CMP shall provide the guideline information defined in MIL-STD-973, Appendix A.

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.**: 974 **ISSUE**: RFP
2. **DRD NO.**: **974LS-001**
3. **DATA TYPE**: 2
4. **DATE REVISED**:
5. **PAGE**: 1/1
6. **TITLE**: Government Property Management Plan
7. **DESCRIPTION/USE**: To describe the method of controlling and managing Government property.
8. **OPR**: AD41 9. **DM**: AD30
10. **DISTRIBUTION**: Cognizant property administrator
11. **INITIAL SUBMISSION**: Preliminary three months after effective date of the contract
12. **SUBMISSION FREQUENCY**: Final six months after effective date of the contract, 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 paragraphs 2.6, 3.9.2.3.1.d, 5.10.2.3.1.d
15. **DATA PREPARATION INFORMATION**:

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

15.2 **APPLICABLE DOCUMENTS**

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

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

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

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

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

DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.**: 974 **ISSUE**: RFP
2. **DRD NO.**: **974MA-001**
3. **DATA TYPE**: 1
4. **DATE REVISED**:
5. **PAGE**: 1/1
6. **TITLE**: Management Plan

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

8. **OPR**: AD30 9. **DM**: AD30

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

11. **INITIAL SUBMISSION**: 30 days after effective date of the contract

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

13. **REMARKS**:
14. **INTERRELATIONSHIP**: PWS paragraph 2.0.d, 2.10

15. **DATA PREPARATION INFORMATION**:

15.1 **SCOPE**: The Management Plan shall describe the contractor's concept plans, practice, and approach for accomplishing the requirements set forth in the contract, i.e., managing and controlling project tasks, experimental work, and management interfaces. The plan shall be in such detail as necessary to convey the contractor's internal procedures.

15.2 **APPLICABLE DOCUMENTS**: None

15.3 **CONTENTS**:

a. The plan shall include a description of the project tasks to be accomplished and an outline of methods by which the contractor proposes to accomplish each task down to the Level IV WBS task level.
b. The plan shall also include a description of management concepts, plans, project management and task/control systems, organizational approach, and communication channels between the contractor and the Government. This shall include descriptions, flow charts, schedules, and other documentation necessary to give a comprehensive plan of organization and accomplishment.
c. The plan shall be outlined by contractor organization with relationship clearly related to the WBS.
d. The plan shall include a process of setting goals and establishing policies, practices, procedures, and organizational structure to support the MSFC IT Governance processes.
e. The plan shall address quality assurance.
f. The plan shall address how the contractor's management structure and lines of authority will support the program management reporting requirements listed in the PWS in a fashion that contributes to the timely notice and resolution of ambiguities, concerns, and conflicts that arise in the performance of this contract.

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.**: 974 **ISSUE**: RFP
2. **DRD NO.**: **974MA-002**
3. **DATA TYPE**: 2
4. **DATE REVISED**:
5. **PAGE**: 1/1
6. **TITLE**: Risk Management Plan, Analysis, and Tracking Reports

7. **DESCRIPTION/USE**: To provide the contractor and the Government a baseline document for planning, management, control, and implementation of the contractor's risk management program.

8. **OPR**: QS10 9. **DM**: AD30

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

11. **INITIAL SUBMISSION**: Plan, Analysis and Tracking Report -30 days after effective date of the contract

12. **SUBMISSION FREQUENCY**: Update Analysis and Tracking Report as part of Preliminary Design Review (PDR), Critical Design Review (CDR) and Acceptance Review (AR) data packages. Update Plan as required.

13. **REMARKS**:
14. **INTERRELATIONSHIP**: PWS paragraphs 2.1.g(4), 3.9.1.2.e, 5.10.1.2.e

15. **DATA PREPARATION INFORMATION**:

15.1 **SCOPE**: The Risk Management Plan addresses how NASA risk management requirements are to be implemented throughout the program's life cycle. Risk Analysis identifies, evaluates, prioritizes and classifies the identified risks. The Risk Tracking Report provides risk metrics, verifies risk mitigation actions and documents risk decisions.

15.2 **APPLICABLE DOCUMENTS**

NPG 7120.5 *Program and Project Management Processes and Requirements*

15.3 **CONTENTS**: The Risk Management Plan shall specify how the contractor will satisfy the risk management requirements of NPG 7120.5 in a manner that is compatible with the CIO's Risk Management Plan. The plan shall specify how the contractor will document risk management activities and how the contractor will communicate risk issues and concerns to the Government.

The Risk Analysis shall contain the following data: 1) References to source data for identified risk areas such as test data, lessons learned, FMEA, hazard analysis and technical analysis; 2) Catalog of all program/project risks; 3) Risk evaluation data that identifies the impact, probability and time frame for each risk; 4) Risk classification and prioritization data.

The Risk Tracking Report shall contain the following data: 1) Status of all risks and risk metrics; 2) Risk mitigation plans and verification of completed mitigation plans; 3) Risk decision summaries that will document replan of unsuccessful mitigation plans and risk acceptance/closures.

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.**: 974 **ISSUE**: RFP
2. **DRD NO.**: **974MA-003**
3. **DATA TYPE**: 2
4. **DATE REVISED**:
5. **PAGE**: 1/1
6. **TITLE**: Major Information Systems Portfolio
7. **DESCRIPTION/USE**: To provide information on the Agency's Information Technology (IT) resources.
8. **OPR**: AD30
9. **DM**: AD30
10. **DISTRIBUTION**: Per Contracting Officer's letter
11. **INITIAL SUBMISSION**: Three months after effective date of the contract
12. **SUBMISSION FREQUENCY**: Quarterly
13. **REMARKS**:
14. **INTERRELATIONSHIP**: PWS paragraph 2.2.h
15. **DATA PREPARATION INFORMATION**:

15.1 **SCOPE**: The Major Information Systems Portfolio monitors IT investments and prevents redundancy of existing or shared IT capabilities.

15.2 **APPLICABLE DOCUMENTS**: None

15.3 **CONTENTS**: The Major Information Systems Portfolio shall provide information demonstrating the impact of alternative IT investment strategies and funding levels, identify opportunities for sharing resources, and provide the Agency's inventory of information resources.

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.**: 974 **ISSUE**: RFP 2. **DRD NO.**: **974MA-004**
3. **DATA TYPE**: 2 4. **DATE REVISED**:
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**: RS40/VS10 9. **DM**: AD30

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

11. **INITIAL SUBMISSION**: Draft with proposal

12. **SUBMISSION FREQUENCY**: 30 days after effective date of the contract, update as required. Revised pages shall be submitted 10 calendar days after contract WBS changes (following Government approval).

13. **REMARKS**: NPD 7120.4B, *Program/Project Management*, and NPG 7120.5A, *Program and Project Management Processes and Requirements*, and MIL-HDBK-881, *Department of Defense Handbook Work Breakdown Structure*, shall be used as guides in the preparation of the WBS and the WBS dictionary.
14. **INTERRELATIONSHIP**: PWS paragraphs 1.2.4, 2.0.h(1)

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 indentured 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).

DRD Continuation Sheet

TITLE: Work Breakdown Structure (WBS) and WBS Dictionary **DRD NO.**: **974MA-004**
DATA TYPE: 2 **PAGE**: 2/2

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

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.
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.**: 974 **ISSUE**: RFP
2. **DRD NO.**: **974MA-005**
3. **DATA TYPE**: 3
4. **DATE REVISED**:
5. **PAGE**: 1/2
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 redetermination, and fixed price incentive contracts.

8. **OPR**: RS40 9. **DM**: AD30

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

11. **INITIAL SUBMISSION**: Within 30 days after the incurrence of cost

12. **SUBMISSION FREQUENCY**: No later than 10 working days following the end of the contractor's accounting month

13. **REMARKS**:
14. **INTERRELATIONSHIP**: PWS paragraph 2.3.c

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)
NPG 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.

The following shall be addressed for each WBS element:

a. Categories of cost:
   1. Direct Labor Hours - Regular
   2. Equivalent Man-months - Regular
   3. Direct Labor Hours – Overtime
   4. Equivalent Man-months – Overtime
   5. Non-productive Hours – Paid absence (sick, vacation, and holiday)
   6. Equivalent Man-months – Paid Absence
   7. Total Direct Labor Dollars - Regular
   8. Total Direct Labor Dollars - Overtime

DRD Continuation Sheet

TITLE: Financial Management Report (533M) **DRD NO.**: **974MA-005**
DATA TYPE: 3 **PAGE**: 2/2

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

9. Total Direct Labor Dollars – Premium
10. Fringe Benefits
11. Labor Overhead
12. Labor Subtotal
13. Sub-Major
14. Sub-Major-Total
15. Sub-Minor
16. Sub-Minor-Total
17. Direct Material
18. IT Vendor Maintenance
19. Software
20. Equipment
21. Transmission Services
22. Materials & Equipment Total
23. Travel
24. Training
25. Relocation
26. Purchased Services
27. Other Direct (specify)
28. Subtotal Other Direct Costs
29. G&A
30. Subtotal Cost
31. Award-fee
32. Total

b. WBS Summary by IT categories.
c. Cover letter explanation of any major deviation from contractor plan (plus or minus 5 percent or $100,000 in any WBS).
d. Provisional award-fee billing will be prorated to each WBS.
e. Cost will be reported to the nearest dollar.

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.**: 974 **ISSUE**: RFP
2. **DRD NO.**: **974MA-006**
3. **DATA TYPE**: *See Remarks
4. **DATE REVISED**:
5. **PAGE**: 1/5
6. **TITLE**: Reports

7. **DESCRIPTION/USE**: These reports are used by NASA for visibility into contract activities.

8. **OPR**: AD30 9. **DM**: AD30

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

11. **INITIAL SUBMISSION**: See Attachment 1. Specific due dates shall be as agreed between the contractor and the Contracting Officer's Technical Representative (COTR).

12. **SUBMISSION FREQUENCY**: See Attachment 1

13. **REMARKS**: *See Attachment 1 for Data Types
14. **INTERRELATIONSHIP**: See Attachment 1

15. **DATA PREPARATION INFORMATION**:

15.1 **SCOPE**: These reports detail activity/performance and utilization reporting for the Contractor's progress and accomplishments.

15.2 **APPLICABLE DOCUMENTS**: None

15.3 **CONTENTS**: See Attachment 1 for required reports. All reports shall be of sufficient depth and clarity to permit understanding and evaluation of progress made. Supporting data in the form of charts, graphs, etc., may be included as appropriate.

15.4 **FORMAT**: Contractor format is acceptable with COTR approval. See Attachment 1 for specific format requirements.

15.5 **MAINTENANCE**: None required

Attachment 1

Report/Information	PWS paragraph	Frequency	Data Type	Format	Content
Project plans, status and schedule reviews (work accomplished, schedules, resources across functional activities)	2.0.h(1), 2.1.a	Monthly	3	MICS	Show interdependencies between functions and tasks; clearly delineate changes from previous month's schedule
Planned versus actual resource allocation	2.0.h(2)	Maintain current	3	MICS	
Headcount Allocations Report	2.0.i(3)	Maintain current	3	Hardcopy	By full cost accounting pools of MSFC IT Services, Center G&A Services, NISN services, and corporate G&A Services)
Weekly Activity Report	2.1.c, 3.9.2.3.b, 5.10.2.3.b	Weekly	3	Online	Significant accomplishments, problems encountered, quality assurance results, and corrective actions.
Tracking of official communication with COTR (e.g., technical direction, information requests, transmittals) and status concerning all such communication	2.1.d	Maintain current	3	Hardcopy	
Cost Accounting System	2.3.a	Maintain current	5	Online (MICS)	
Contract administration information system	2.4.b	Maintain current	5	Online (MICS)	
Procurement information system	2.5.a, 2.5.b	Maintain current	5	Online (MICS)	Status tracking of individual procurements; funding verification; contractor policies/procedures, etc.
Customer Satisfaction Surveys Summary Report	2.11.2.g, 2.11.3	Monthly	2	Online database	Summarize customer satisfaction survey data (number of surveys sent, responses received, action taken, and results) within each customer service area.

Attachment 1

Report/Information	PWS paragraph	Frequency	Data Type	Format	Content
Consolidated NPPS data	3.1.2.f	Monthly	3	Online	Projections of computer time requirements, product schedules in response to customer inputs
NASIRC Reports	3.3.4.e				
Daily Incident Summary Report for Field Center IT Security Managers		Daily	3	Online	
Weekly Incident Summary Report for Field Center IT Security Managers		Weekly	3	Online	
Verbal Briefing and Status Report to the NASIRC Federal Security Team		Weekly	3	Online	
Progress Report on Problems being Encountered with Accomplishing Specific Goals and Tasks in Quarterly Forecast		Monthly	3	Online	
Report/Graphs of Incident Types and Trends for NASA HQ and FedCIRC also Posted on NASIRC Secure Web Site		Monthly/Quarterly Annually	3	Online	
Reports on Comparison of Internal Information (Types of Bulletins, Alerts, Memos, and Heads-up and Follow-up Notices Issued)		Quarterly	3	Online	
Senior Management Requests for Special Analysis and Reports		As Required	3	Online	
Detailed Verbal Summary Reports at Weekly CIO/ITS Telecons on Agency-Wide Vulnerability/Incident Situations and Trends		Weekly	3	Online	
Verbal Reports at Weekly Security Tag-Up Meetings on NASIRC Incident Handling Issues		Weekly	3	Online	

Computer systems performance, throughput and capacity reports	3.4.2.g	Monthly	3	Online	

Attachment 1

Report/Information	PWS paragraph	Frequency	Data Type	Format	Content
Network performance and capacity reports	3.4.3.d	Monthly	3	Hardcopy and online	Network performance, throughput, utilization & capacity
Midrange Services utilization reports	3.4.4.f, 5.2.1.f, 5.2.2.f	Monthly	3	Online	
Russian IT Security reports	3.5.3	Monthly	3	Online	Network metrics, web trending reporting, incident response
GSA vendor cost and usage reports	3.6.1	Monthly	3	Online	GSA vendor usage and cost
ViTS Reporting	3.6.3.1.c	Maintain current	3	Electronic	Scheduling
Mission Video Distribution Activities Report	3.6.3.6.e	Weekly	3	Online	Documentation of all operations, engineering, maintenance and repair activities
Mission Video Distribution Activities Daily Log	3.6.3.6.e	Maintain current	3	Online	
VoTS information	3.6.4.1.a, 3.6.4.1.d	Monthly	3	Online	Reservations and scheduling information; monthly usage and cost summaries by NASA Center
Facsimile Broadcast Services performance and utilization metrics	3.6.10.c	Monthly	3	Online	
Network scheduling daily log	3.7.1.e	Maintain current	3	Online	
Network activity and outage reports	3.7.1.g	Archived	5	Online	
Network monitoring service performance metrics in support of service level agreements	3.7.2.f	Monthly	3	Hardcopy and online	Network performance, throughput, utilization & capacity
Network expansion plans	3.7.2.l	As required	3	Hardcopy	Expansion plans based on monitoring of system traffic patterns
Network carrier performance reports and recommendations	3.7.2.o, 3.7.2.p	Monthly and Quarterly	3	Hardcopy and online	Performance reports; recommendations for improvement of carrier performance and resolution of recurring problems.
Network problem reporting and resolution	3.7.4.b	As required	3	Online	

Attachment 1

Report/Information	PWS paragraph	Frequency	Data Type	Format	Content
Customer trouble call log	3.7.4.d, 3.7.4.g	Update automatically	4	Online	Automatic log of customer trouble calls, including metrics (e.g., caller queue times, abandoned calls, etc)
Installation Daily Log	3.7.4.i	Maintain current	4	Online	Log of installation troubleshooting and restoration activities
Customer Support Center Status System	3.8.1.c, 3.8.1.e, 3.8.1.f, 3.8.2.a, 5.9.1.c, 5.9.1.e, 5.9.2.a, 5.10.1.2.b	Maintain current	4	Online	Information related to service requests, problems and resolutions
Service Request Status Reports	3.8.2.d, 5.9.2.d	Monthly	3	Online	
Maintenance information	3.9.4.b, 5.10.4.b	Monthly	3	Online	Information on operational failures, incidents, discrepancies, and problem disposition and resolution
Maintenance Daily Log	3.9.4.b, 5.10.4.b	Maintain current	3	Online	Log of all maintenance and repair activities
Monthly Maintenance Reports	3.9.4.c, 5.10.4.c	Monthly	3	Online	Information on outages (e.g., component involved, period of downtime, corrective actions). To assist the Government in assessing credits due to the Government.
IFMP Integration Project Workplan/Schedule	4.2.1.1, 4.2.2.2	Monthly	3	Online	
IFMP Module Project Service Level (SLA) Metric Report(s)	4.3.5.e	Monthly	3	Online	Monthly reporting of IFMP Competency Center performance against SLA performance requirements
Applications and Web Services Reports	5.1, Attachment J-4-(F)	Quarterly	3	Online	Trouble ticket score with supporting data [ref. Attachment J-4-(F)]

Help Desk Status Reports	5.9.1.f	Monthly	3	Online	

DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.**: 974 **ISSUE**: RFP
2. **DRD NO.**: **974MA-007**
3. **DATA TYPE**: *See Remarks
4. **DATE REVISED**:
5. **PAGE**: 1/5
6. **TITLE**: Documentation

7. **DESCRIPTION/USE**: To provide necessary information for effectively utilizing and operating hardware and software systems for which the contractor has responsibility.

8. **OPR**: AD30 9. **DM**: AD30

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

11. **INITIAL SUBMISSION**: See Attachment 1

12. **SUBMISSION FREQUENCY**: See Attachment 1

13. **REMARKS**: *See Attachment 1 for Data Types
14. **INTERRELATIONSHIP**: See Attachment 1

15. **DATA PREPARATION INFORMATION**:

15.1 **SCOPE**: Documentation is to be provided on all hardware and software covered by the contract to the extent necessary to permit effective utilization.

15.2 **APPLICABLE DOCUMENTS**: None

15.3 **CONTENTS**: Documentation shall be in the form of manuals, plans, studies, technical bulletin, user guides, quick references, newsletters, and online files. Information is to be provided in sufficient detail and with such clarity to allow understanding necessary to plan and process work on the UNITeS systems. Administrative, operating, and technical information shall be included with examples as appropriate. A documentation tree shall be maintained for applicable documents. Specific documentation requirements are detailed in Attachment 1.

15.4 **FORMAT**: Contractor format is acceptable with COTR approval. See Attachment 1 for specific format requirements.

15.5 **MAINTENANCE**: Revisions made periodically to reflect current information.

Attachment 1

Documentation	PWS paragraph	Frequency	Data Type	Format	Content
MSFC Information Systems architecture for computers, applications, and data administration	2.2.d	Maintain current	3	Online	
Agency Information Systems Architecture Documentation for networks	2.2.d	Maintain current	3	Online	
Information Resources Strategic/Implementation Plans	2.2.e	Annually	1	Hardcopy	
Special Studies	2.2.f, 2.2.g, 2.2.i(6), 2.2.i(8), 2.11.2.d, 3.9.1.1.b, 3.9.1.2.a, 3.9.1.2.c, 3.9.1.2.d, 3.9.2.1.b, 5.10.1.1.b, 5.10.1.2.a, 5.10.1.2.c, 5.10.1.2.d, 5.10.2.1.b	As Required	3	Hardcopy	Trade studies, feasibility studies, trend analyses, business cases, hypothetical investigations, benchmarks, standards migration, pricing, etc.
Five Year Technology Plan	2.2.i(11)	Annually	1	Hardcopy and online	
Initial set of documentation/drawings generated under previous contracts	2.4.d(3)	Maintain	3	Hardcopy	
Documentation/drawings generated under this contract	2.4.d(4), 3.7.7.a, 5.10.2.1	Maintain current	3	Online	Design drawings, specifications, technical configurations, diagrams, architectures, processes etc.
Documentation Tree	2.4.d(5)	Maintain current	3	Online	Categorizes, lists and describes all documentation generated under this contract.
Asset Management	2.6, 4.3.6.e	Maintain current	3	Online	Government property inventory and records
Disaster Recovery Plan	2.7.3.a, 2.7.4, 3.9.6, 4.3.6.b, 5.10.6	Annually	1	Hardcopy	

Attachment 1

Documentation	PWS paragraph	Frequency	Data Type	Format	Content
Business Continuity Plan	2.7.3.e, 2.7.4, 3.9.6, 5.10.6	Annually	1	Hardcopy	
Facilities Management documentation	2.9.a, 2.9.b, 2.9.c, 2.9.d, 2.9.e, 2.9.f, 2.9.h, 2.9.j, 2.9.k, 2.9.l	Maintain current	3	Hardcopy	Documentation, floor plans, records of changes/moves, schedules, status, projects, requirements
Customer requirements	2.11.1.b, 2.11.2.a, 3.9.1.1.a, 3.9.1.1.c, 3.9.2.1.a, 5.10.1.1.a, 5.10.1.1.c, 5.10.2.1.a	Semi-Annually	3	Hardcopy	
Customer service level agreements and commitment agreements	2.11.2.i	Maintain current	3	Hardcopy	
Applications and Web Services Manual	3.1, 5.1	Semi-Annually	2	Hardcopy	Descriptions of Agencywide computer applications services
Data Administration documentation	3.1.b, 5.1.b	Maintain current	1	Hardcopy	Policies, procedures, architecture, data dictionary and models, etc.
Digital Television service documentation	3.2.a, 3.2.b	Maintain current	1	Hardcopy	Customer television requirements; transition and implementation plans
IT Security Demilitarized Zone design, architecture and environment	3.3.5.c	Maintain current	1	Hardcopy	
Account management documentation	3.3.6.a, 3.4.4.f, 3.7.3.1.a, 3.7.3.1.b, 4.2.1.6, 4.2.2.5, 5.2.1.f, 5.2.2.f	Maintain current	5	Hardcopy	User account information (userids, access, quotas, requirements), smart cards, secure tokens, etc.
Software licenses	3.4.b, 3.9.4.1.b(2), 5.10.4.1.b(2)	Maintain current	5	Online	
Midrange Node Book	3.4.4, 5.2	As required	3	Online	System configuration documentation for Agencywide computer systems services defined in Appendix A, Category I.

Attachment 1

Documentation	PWS paragraph	Frequency	Data Type	Format	Content
ViTS Facilities documentation	3.6.3.2.b, 3.6.3.3.b	Maintain current	3	Hardcopy	Room layout, facility changes
VoTS Facilities documentation	3.6.4.2.b	Maintain current	3	Hardcopy	Room layout, facility changes
NISN Services Document	3.6.5.1, 3.7.2, 3.7.5	Maintain existing document	1	Hardcopy and electronic	Maintain existing NISN Services Document (NISN 001-001)
Problem management escalation procedures and contacts for contractor and suppliers	3.7.4.c, 3.7.4.e	Maintain current	2	Hardcopy and electronic	Processes, criteria and points of contact for problem resolution
Network and facilities drawings	3.7.7.c	As required	3	Hardcopy and electronic	
Connection database	3.7.7.d	Maintain current	4	Online	Document appliance, office jack, switch port, network connectivity, etc.
User training documentation	3.8.3.a, 3.8.3.b, 4.3.3.f, 5.9.3.a	Maintain current	2	Hardcopy and electronic	Class documentation, videotapes, hardcopy and computer-based tutorial information, reference information for user training and specialized training
Key contacts list for hardware/software maintenance functions	3.9.4.d, 5.10.4.d	Maintain current	3	Hardcopy	
Spare parts list	3.9.4.g, 5.10.4.g	Maintain current	3	Hardcopy	Spare parts and materials necessary to maintain equipment
Service Records	3.9.4.i, 5.10.4.i	Maintain current	5	Online; CCAIMS	Service records for each system shall include date and type of equipment, service performed, list of parts used and costs, staff-hours utilized and downtime
Vendor documentation	3.9.4.k, 5.10.4.k	Maintain current	5	Hardcopy and online	Vendor documentation for all systems

Attachment 1

Documentation	PWS paragraph	Frequency	Data Type	Format	Content
IFMP Business Architecture	4.1, 4.1.1, 4.2.1.3, 4.2.2.3	Maintain current	1	Online	Includes all modules; represents blueprint of the interaction between high-level functions and processes
IFMP Application Architecture	4.1, 4.1.2, 4.2.1.3, 4.2.2.3	Maintain current	1	Online	Includes key interfaces and information needs between modules; definition of how interfaces will be implemented
IFMP Technical Architecture	4.1, 4.1.3, 4.2.1.1, 4.2.2.7	Maintain current	1	Online	
IFMP Module Requirements	4.2.1.2, 4.2.1.6	Maintain current	1	Online	
IFMP Module Performance and Scalability Test Plan	4.2.1.6	Maintain current	1	Online	
IFMP Module Project Operations Plan(s)	4.2.1.7	As required	1	Online	
IFMP Module Project Service Level Agreement(s)	4.2.1.7, 4.3	Annually	1	Online	
IFMP Module Project Center Operational Level Agreement(s)	4.2.1.7	Annually	1	Online	
MSFC Telephone Directory	5.4.1.k	Maintain current	1	Hardcopy and online	
Cable documentation	5.4.3.c, 5.4.3.h	Maintain current	3	Hardcopy	Interbuilding cable systems and documentation; cable distribution systems and documentation
As-implemented systems configuration information	5.10.3	Maintain current	3	Hardcopy	Includes hardware numbers, software revision levels, user interface details, and circuit details, such as circuit numbers, circuit types, originating and terminating locations, installation date, and service request reference number

DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.**: 974 **ISSUE**: RFP
2. **DRD NO.**: **974MA-008**
3. **DATA TYPE**: 3
4. **DATE REVISED**:
5. **PAGE**: 1/1
6. **TITLE**: Cost Reports
7. **DESCRIPTION/USE**: To provide current budget guidelines and cost variances.
8. **OPR**: AD30
9. **DM**: AD30
10. **DISTRIBUTION**: Per Contracting Officer's letter
11. **INITIAL SUBMISSION**: Within 30 days after the incurrence of cost
12. **SUBMISSION FREQUENCY**: No later than 10 working days following the end of the contractor's accounting month
13. **REMARKS**:
14. **INTERRELATIONSHIP**: PWS paragraph 2.3.b
15. **DATA PREPARATION INFORMATION**:

15.1 **SCOPE**: The cost reports shall comply with NASA budget guidelines and projected cost variances.

15.2 **APPLICABLE DOCUMENTS**: None

15.3 **CONTENTS**: The cost reports shall include projected and actual manpower and cost variances from the plan for the current fiscal year, magnitude of variances, reason for variances, and all projected activities that might affect the variances. The cost reports shall include:

a. Cost by NASA Organization (end-user)
b. Hardware/Software Procurement Status
c. Accrued versus Vouchered Cost Status

15.4 **FORMAT**: Contractor format is acceptable with Government approval.

15.5 **MAINTENANCE**: None required

DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.**: 974 **ISSUE**: RFP
2. **DRD NO.**: **974MA-009**
3. **DATA TYPE**: 2/3*
4. **DATE REVISED**:
5. **PAGE**: 1/1
6. **TITLE**: Export Control Plan and Reports
7. **DESCRIPTION/USE**: To provide the contractor's plan for complying with export control requirements and reports of export control activities.
8. **OPR**: AD30 9. **DM**: AD30
10. **DISTRIBUTION**: Per Contracting Officer's letter
11. **INITIAL SUBMISSION**: Within 10 days of effective date of the contract
12. **SUBMISSION FREQUENCY**: Update Plan as required. Submit report monthly.
13. **REMARKS**: *The plan is Data Type 2. The reports are Data Type 3.
14. **INTERRELATIONSHIP**: PWS paragraphs 2.1.e, 2.7.6
15. **DATA PREPARATION INFORMATION**:

15.1 **SCOPE**: The Export Control Plan shall provide export control processes and procedures and the report shall detail export control activities.

15.2 **APPLICABLE DOCUMENTS:**

NASA FAR 1852.225-70	*Export Licenses*
NPD 2190.1	*NASA Export Control Program*
MPD 2190.1	*MSFC Export Control Program*
MPG 2190.1	*MSFC Export Control Program*

15.3 **CONTENTS**:

a. The plan shall detail the contractor's plan for meeting the export control requirements of the Export Administration Regulations (EAR), the International Traffic and Arms (ITAR), NASA FAR Supplement 1852.225-70, NPD 2190.1, MPD 2190.1 and MPG 2190.1. The plan shall provide an approach that is functionally able to address the elements of export control, including software release; foreign visitors/workers; scientific and technical information release; hardware; shipments; internet and web page information; and US Postal services, facsimile, and electronic mail information exchange. The plan shall also provide an approach which is functionally able to address any issues and incidents related to MSFC and Agency support systems and training of all personnel on export control processes and procedures.

b. The report shall detail all export control activities for the month reported. The data for the report shall be retrieved from the contractor's online database of export control activities.

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.**: 974 **ISSUE**: RFP
2. **DRD NO.**: **974MA-010**
3. **DATA TYPE**: 3
4. **DATE REVISED**:
5. **PAGE**: 1/1
6. **TITLE**: Contractor Self-Assessment Report
7. **DESCRIPTION/USE**: To provide the contractor's self-assessment of performance of contract tasks.
8. **OPR**: AD30 9. **DM**: AD30
10. **DISTRIBUTION**: Per Contracting Officer's letter
11. **INITIAL SUBMISSION**: Monthly report: submit online through UNITeS Management Information and Control System (MICS) 10 days after first full month following effective date of the contract. Quarterly report: submit package of quarterly assessments (from monthly submittals to UNITeS MICS) as part of first quarterly award fee report.
12. **SUBMISSION FREQUENCY**: Monthly report: submit online through UNITeS (MICS) by 10th day of the month following monthly reporting period. Quarterly report: submit as part of each quarterly award fee report.
13. **REMARKS**:
14. **INTERRELATIONSHIP**: PWS paragraphs 1.2.4, 3.0, 5.0
15. **DATA PREPARATION INFORMATION**:

15.1 **SCOPE**: The report provides the contractor's self-assessment of performance of the contract tasks.

15.2 **APPLICABLE DOCUMENTS**: None

15.3 **CONTENTS**: The Contractor Self-Assessment Report shall:

a. Describe the contractor's self-assessment of performance of the PWS tasks.
b. Describe the contractor's self-assessment of performance against the contract performance standards.

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

15.5 **MAINTENANCE**: None required

DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.**: 974 **ISSUE**: RFP
2. **DRD NO.**: **974MA-011**
3. **DATA TYPE**: 2
4. **DATE REVISED**:
5. **PAGE**: 1/1
6. **TITLE**: Certification of NISN Systems Readiness

7. **DESCRIPTION/USE**: To report and/or certify that the contractor's networks and systems and services are ready to support mission and program milestones. The report may also be used to assess operational readiness of systems prior to deployment of upgrades and new service implementations.

8. **OPR**: AD30 9. **DM**: AD30

10. **DISTRIBUTION**: Formatting and electronic distribution shall be per Contracting Officer's letter

11. **INITIAL SUBMISSION**: First mission or program milestone or first system deployment after effective date of the contract.

12. **SUBMISSION FREQUENCY**: 14 calendar days prior to readiness review. Updates may be required prior to actual milestone.

13. **REMARKS**: The contractor shall provide readiness reports to the NISN Configuration Control Board (CCB) or the CCB's delegate(s), who are responsible for ensuring NISN networks and services are ready to support mission/program milestones, or that new systems are ready for operational deployment. Contractor signature may be required to certify readiness.
14. **INTERRELATIONSHIP**: PWS paragraphs 2.1.f, 3.7.5.d. DRD 974CM-001, *Configuration Management Plan*.

15. **DATA PREPARATION INFORMATION**:

15.1 **SCOPE**: The report shall provide visibility and commitment of the contractor's networks, services, and personnel to support milestones, as well as product and process status for certifying readiness to support milestones.

15.2 **APPLICABLE DOCUMENTS**

NSTS 08117 *Certification of Flight Readiness Requirements*
SSP 50108 *Certification of Flight Readiness for Space Station*
UNITeS Configuration Management Plan (prepared in accordance with 974CM-001)

15.3 **CONTENTS**: The readiness status report shall include network/system status, support details, issues/concerns, changes since the last readiness review, accomplished level of training, and completeness of testing. Status of major anomalies discovered during testing, training, and/or operations activities shall be provided along with necessary restrictions or workaround(s). The reports shall include data to support the contractor's readiness to support mission milestones as defined in applicable documents in 15.2.

15.4 **FORMAT**: Format shall be per Contracting Officer's letter.

15.5 **MAINTENANCE**: None required

DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.**: 974 **ISSUE**: RFP
2. **DRD NO.**: **974RM-001**
3. **DATA TYPE**: 1
4. **DATE REVISED**:
5. **PAGE**: 1/2
6. **TITLE**: Operability/Maintainability Plan

7. **DESCRIPTION/USE**: To provide the Contractor and the Government a baseline document for Operability/Maintainability.

8. **OPR**: AD30 9. **DM**: AD30

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

11. **INITIAL SUBMISSION**: A final version shall be submitted within 14 days after effective date of the contract.

12. **SUBMISSION FREQUENCY**: One time and revisions to reflect significant changes.

13. **REMARKS**:
14. **INTERRELATIONSHIP**: PWS paragraphs 3.9.4, 3.9.4.a, 3.9.4.1, 3.9.4.1.a(1), 3.9.4.2.c, 3.9.4.2.d, 5.3.a, 5.3.b, 5.10.4, 5.10.4.a, 5.10.4.1, 5.10.4.1.a(1), 5.10.4.2.c, 5.10.4.2.d; Appendix A

15. **DATA PREPARATION INFORMATION**:

15.1 **SCOPE**: This 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 plan shall address for each system the applicable availability parameters, methodology for establishment of the parameters, identification and analysis of the risks associated with the parameters, and detailed approaches for performing within the defined parameters. The plan shall include:

a. Availability Parameters:
   1. Overall percentage of system availability.
   2. Preventive Maintenance:
      (a) Schedule for performing.
      (b) Downtime required.
      (c) Meantime between failures.
      (d) Define Principle Periods of Maintenance (PPM) for each system.
   3. Remedial Maintenance:
      (a) Response time.
      (b) Meantime to repair.
      (c) Operational procedures to ensure system continues to operate while any failed component is being replaced.
   4. Methodology used to establish parameters.

b. Identification and Analysis of Risks:
   1. Failure modes and effects.
   2. Impact of nonavailability.
   3. Trade-offs.

DRD Continuation Sheet

TITLE: Operability/Maintainability Plan **DRD NO.**: **974RM-001**
DATA TYPE: 1 **PAGE**: 2/2

15. **DATA PREPARATION INFORMATION (CONTINUED)**:
    c. Detailed Performance Approach:
        1. Preventive maintenance.
        2. Remedial maintenance.
        3. System backups.
        4. Warranty identification and enforcement.
    d. Baselined Operation Hours:
        1. Scheduled hours of service.
        2. Total hours in which business is scheduled.
        3. Specified time period, e.g., month or quarter.
    e. Format and Content of Monthly Maintenance Report.

15.4 **FORMAT**: Contractor format is acceptable with MSFC approval.

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

DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.**: 974 **ISSUE**: RFP
2. **DRD NO.**: **974SA-001**
3. **DATA TYPE**: 2
4. **DATE REVISED**:
5. **PAGE**: 1/3
6. **TITLE**: On-site Safety and Health Plan

7. **DESCRIPTION/USE**: To provide the contractor and the Government a baseline document for planning, management, control, and implementation of the contractor's industrial/occupational safety, health, and environmental program.

8. **OPR**: AD02/QS50/AD10 9. **DM**: AD30

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

11. **INITIAL SUBMISSION**: Preliminary with proposal

12. **SUBMISSION FREQUENCY**: Final ten days after effective date of the contract; update as required

13. **REMARKS**:

14. **INTERRELATIONSHIP**: NFS 1852.223-70, *Safety and Health;* FAR 52.223-3, *Hazardous Material Identification and Material Safety Data*; FAR 52.223-4, *Recovered Material Certification*; FAR 52.223-5, *Pollution Prevention and Right-to-Know Information*; FAR 52.223-7, *Notice of Radioactive Materials*; FAR 52.223-9, *Estimate of Percentage of Recovered Material Content for EPA-Designated Products*; FAR 52.223-10, *Waste Reduction Program*; FAR 52.223-11, *Ozone Depleting Substances*; FAR 52.223-12, *Refrigeration Equipment and Air Conditioners*; FAR 52.223-13, *Certification of Toxic Chemical Release Reporting*; and FAR 52.223-14, *Toxic Chemical Release Reporting*. PWS paragraph 2.8

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.

15.2 **APPLICABLE DOCUMENTS**: Implementation of the following Occupational Safety and Health Standards and applicable requirements shall be specified in the plan.

29 CFR 1910	*Department of Labor; Occupational Safety and Health Administration Standards for General Industry*
29 CFR 1926	*Department of Labor; Occupational Safety and Health Administration Standards for Construction Industry* (if applicable to scope of this contract)
40 CFR	*Protection of the Environment*

ANSI Standards applicable to the scope of this contract

ASME Boiler and Pressure Vessel Code

MPG 8500.1	*MSFC Environmental Management Program*
MPG 1040.3	*MSFC Emergency Plan*
MPG 1840.3	*MSFC Hazardous Chemicals in Laboratories Protection Program*
MPG 1840.1	*MSFC Confined Space Entries*
MPD 1860.2	*MSFC Radiation Safety Program*
MPG 1810.1	*MSFC Occupational Medicine*
MPD 1840.3	*MSFC Respiratory Protection Program*
MPD 1840.2	*MSFC Hearing Conservation Program*
MPD 1840.1	*MSFC Environmental Health Program*

DRD Continuation Sheet

TITLE: On-site Safety and Health Plan **DRD NO.**: **974SA-001**
DATA TYPE: 2 **PAGE**: 2/3

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

MPG 1840.2	*MSFC Hazard Communication Program*
MPD 1860.1	*Laser Safety*
MPG 1800.1	*Bloodborne Pathogens*
MWI 3410.1	*Personnel Certification Program*
MPG 8715.1	*Marshall Safety, Health and Environmental (SHE) Program*
MPD 8900.1	*Medical Operations Responsibilities for Human Space Flight Programs* (NOTE: This document only applies to Space Station contracts)
NFPA Standards	*National Fire Codes*
NPG 8715.3	*NASA Safety Manual*
NASA-STD-8719.11	*Safety Standard for Fire Protection*

15.3 **CONTENTS**: The plan shall describe the manner in which the contractor shall implement the intent of the requirements of the applicable documents as they pertain to the specific statement of work tasks to be performed. The plan shall define the safety, health, and environmental program, objectives and goals, management structure, and detailed description of the total safety program including responsibilities, procedures, reporting, training, compliance methodologies, and interface and coordination activities. The On-site Safety and Health Plan shall include:

a. Management commitment and employee involvement in the safety and health program:
   1. Statement of management policy, commitment, and accountability to provide for the safety and health of personnel (i.e., employees, customers, and public) and property and compliance with EPA, OSHA and NASA requirements.
   2. Provision for top-level management monthly safety and health committee meetings.
   3. Descriptions of safety and health awareness and motivation programs, including documented safety meeting requirements, and documented safety awareness training for employees. (Safety meeting statistics documented in the Supervisors Safety Web page: http://msfcsma3.msfc.nasa.gov/dbwebs/apps/sswp/SSWP_login.taf)
   4. Means of program evaluation, identifying duties, methods and frequency for internal evaluation of the safety and health program, and identification of personnel who perform evaluations and to whom evaluations are reported and who approves corrective action.
   5. Flowdown of safety responsibilities between appropriate tiers (i.e., subcontractors).
   6. Identification of employees (by type, classification, and qualification) responsible for the implementation of the above elements.

b. System and worksite hazard analysis:
   1. Methods of hazard identification and control, e.g., hazard analysis and risk assessment.
   2. Descriptions of OSHA programs that require documented plans (e.g., Personnel Protective Equipment (PPE), Confined Space, and Lockout/Tagout, etc. Include the interrelationships with the MSFC plans.) (Note: only programs applicable to the contract need to be addressed.)
   3. Requirements for formal safety inspections and correction of deficiencies.
   4. Requirements for documented safety visits (e.g., one per month per supervisor) documented in the Supervisors Safety Web page.
   5. Schedules of the frequency and documentation requirements for inspections, plan and procedure reviews, and certifications.

c. Hazard prevention and control:
   1. Methods to include clear statements of hazardous situations and necessary cautions in appropriate detail plans, procedures, and other working documents.
   2. Controls over the procurement, storage, issuance, and use of hazardous substances and procedures for recycling and disposal of hazardous waste.

DRD Continuation Sheet

TITLE: On-site Safety and Health Plan **DRD NO.**: **974SA-001**
DATA TYPE: 2 **PAGE**: 3/3

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

3. Method of ensuring a documented emergency management program. Include a list of emergency points of contract. (Note: on-site contractors may use MPG 1040.3.)
4. Method of reporting and investigating all mishaps and close calls, including an outline of reporting requirements and a description of how root cause analysis is to be accomplished.
5. Provisions for safety, health, and environmental services such as hazardous waste disposal, industrial hygiene monitoring, emergency medical support, hearing conservation program, and hazard communication.
6. Provision for suspending work where safety or environmental conditions warrant such action.

d. Safety and health training:

1. Means for training each employee to recognize hazards and avoid accidents, and assuring each employee has a clear understanding of the disciplinary program.
2. Provisions for training and certification of personnel performing potentially hazardous operations. Job categories under the contracted effort that require certification shall be identified. Personnel Certification for the identified job categories shall be tracked in the MSFC Certification Database (CERTRAK) in accordance with MWI 3410.1 "Personnel Certification Program."

e. Environmental compliance - Provisions for compliance with environmental laws and regulations by: reporting hazardous and toxic substance use; implementing green procurements; reducing, reusing, and recycling of hazardous and toxic substances prior to disposal; minimizing stormwater pollution; ensuring equipment and processes permitted by applicable laws; and disposing of solid and liquid materials as permitted by applicable laws.

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

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

DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.**: 974 **ISSUE**: RFP
2. **DRD NO.**: **974SA-002**
3. **DATA TYPE**: 3
4. **DATE REVISED**:
5. **PAGE**: 1/2
6. **TITLE**: Mishap and Safety Statistics Reports

7. **DESCRIPTION/USE**: To provide reporting of mishaps and related information required to produce metrics for MSFC.

8. **OPR**: QS50 9. **DM**: AD30

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

11. **INITIAL SUBMISSION**:
    a. Mishaps and Close Calls:
       1. Type A or B mishaps only: Immediate telephone notification (256-544-0046)
       2. Type A, B and C mishaps (**applicable to onsite contractors only**): Flash Report within 4 hours of knowledge on MSFC Form 4370, submitted either electronically (at https://msfcsma3.msfc.nasa.gov/s&ma_01/mishap/index.htm)or by telephone [Call 256-544-4357 (4-HELP); ask operator to fill out MSFC Form 4370 or Flash Report].
       3. All Mishaps (Type A, B, C, Incidents and Close Calls): Mishap Report NASA Form 1627 within 6 calendar days of Mishap
       4. All Mishaps: Monthly Follow-up Corrective Action Plan/Status as required until closed.
       5. Type A, B, and Close Calls with high Type A or B potential: Mishap Board Report after completion of investigation.
    b. Safety Statistics (e.g., contract number, subcontractors, SIC/NAIC codes, number of employees, number of supervisors, etc.): submitted on MSFC Form 4371 by the 10th of each month following effective date of the contract.

12. **SUBMISSION FREQUENCY**:
    a. MSFC Form 4370 - Each occurrence of a mishap except as identified in section 11.a.2.
    b. NASA Form 1627 - Each occurrence of a mishap. Corrective action status reports are due every 30 days until the final report is submitted.
    c. MSFC Form 4371 - By the 10th of each month.
    d. Mishap Board Report – Each occurrence of a Type A or B mishap, or as directed by Center management.

13. **REMARKS**:
14. **INTERRELATIONSHIP**: PWS paragraph 2.8

15. **DATA PREPARATION INFORMATION**:

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

15.2 **APPLICABLE DOCUMENTS**

NPG 8621.1 *NASA Procedures and Guidelines for Mishap Reporting, Investigating, and Recordkeeping*
MWI 8621.1 *Close Call and Mishap Reporting and Investigation Program*

DRD Continuation Sheet

TITLE: Mishap and Safety Statistics Reports **DRD NO.**: **974SA-002**
DATA TYPE: 3 **PAGE**: 2/2

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

15.3 **CONTENTS**: The reports shall contain the information required by NPG 8621.1. The contractor shall use the forms listed in 15.4 to report mishaps and related information required to produce the safety metrics.

15.4 **FORMAT**: The following formats shall be submitted:

a. MSFC Form 4370, "MSFC Flash Mishap Report."
b. NASA Form 1627, "NASA Mishap Report."
c. MSFC Form 4371, "MSFC Contractor Safety Statistics."
d. Mishap Board Report using the format provided in NPG 8621.1.

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

ATTACHMENT J-3

WAGE DETERMINATIONS

Wage Determinations from the Department of Labor are attached

NOTICE TO PROSPECTIVE OFFERORS:

The various Wage Determinations included in ATTACHMENT J-3 include individual labor classifications that may not apply to the effort specified in ATTACHMENT J-1, Performance Work Statement. Therefore, offerors shall propose against the requirements of the PWS utilizing only those classifications that are relevant to the effort and the locations in which the effort is to occur.

SPECIAL NOTICE

Additional SERVICE CONTRACT ACT WAGE DETERMINATION REQUIREMENTS:

The following job classifications were **conformed** by a predecessor contractor and **approved** by the U. S. Department of Labor (DOL) on January 5, 1993. These additional approved classifications and wage rates, as well as those contained in the Service Contract Act (SCA) wage determination 1994-2008, shall be applicable to the follow-on requirement.

In Addition, the minimum hourly wage rates listed below shall be **"indexed"** each time a new SCA contract wage determination is incorporated into the resulting contract and options in accordance with Title 29 Code of Federal Regulations Part 4.6(b)(2)(iv)(B). These indexed rates shall be submitted to the contracting officer and the Contractor Industrial Labor Relations Manager for review and approval. In this regards the successor must furnish full rational for the adjusted rates in accordance with DOL requirements.

The mandatory minimum wage rates for these classifications are listed below. The mandatory fringe benefits requirements shall be identical to those contained in wage determination No. 94-2008 (Revision 17), dated 01-28-02.

CONFORMED CLASSIFICATIONS

	DOL Approved Classifications	Minimum Hourly Rate
*	Photographic Laboratory Technician I	$ 14.36
*	Photographic Laboratory Technician II	$ 17.93
*	Photographic Laboratory Technician Lead	$ 19.73

* Job Description Attached

Photographic Laboratory Technician I:

Operates the processing and printing equipment for both motion picture and still photography production. Could be called upon to add pre-mixed chemicals to tank. Loads and processes film and paper products. Prints color and black and white prints, viewgraphs and slides using sensitometric and densitometric techniques. May use a film color corrector for transferring motion picture film to videotape in a variety of formats, enhancing the picture quality through the use of gain and pedestal adjustments, primary and secondary color adjustments, and gain reduction. Has an understanding of copy room techniques and procedures creating images using different sesitometric materials to produce high quality negatives and transparencies from customer originals. May be called upon to assist higher-level personnel with the process. Interprets work requirements to meet customer needs. Assists in general operation and maintenance of all photographic equipment. Uses computer to request caption labels and log work requests. With little or no assistance may operate computer and peripherals for digital imaging. Film scanning, film recording, and inkjet printing.

Photographic Laboratory Technician II:

Operates the processing and printing equipment for both motion picture and still photographic production. May produce black and white, color still, and motion picture, with no assistance use sesiometric and densitometric techniques to color and density correct negatives. Reads and plots film and paper sensitometric control strips for still and motion picture processing. Has the knowledge to interpret and maintain proper processing control. Assists lower level personnel with this process. Responsible for adding pre-mixed chemicals to tank and mixing chemicals by using a formula for motion picture development. Possesses the ability to work in a copy room selecting the appropriate sensitized material and determines the appropriate scale to use to meet customer needs. Oversees the general operation and maintenance of all photographic equipment. Interprets work request to meet customer needs. Cuts and captions prints using a computer to request caption labels and mounts viewgraphs and slices. With no assistance operates computer and peripherals for digital imaging, film scanning, film recording, and inkjet printer. Responsible for hazardous waste control and hazardous chemical inventory.

Photographic Laboratory Technician Lead:

In addition to the duties described in Photographic Technician II above, the Photographic Technician III:

Receives and interprets work orders and assigns to personnel for completion. Tracks work orders; keeps maintenance logs, and produces reports as required.

Checks quality of work produced, equipment conditions, and supply levels to maintain a smooth operation.

Maintains sensitometric and chemical control of all still and motion picture processing machines.

Prepares logs on work orders.

Assists lower level personnel in completion of assigned task.

REGISTER OF WAGE DETERMINATIONS UNDER THE SERVICE CONTRACT ACT
By direction of the Secretary of Labor

U.S. DEPARTMENT OF LABOR
EMPLOYMENT STANDARDS ADMINISTRATION
WAGE AND HOUR DIVISION
WASHINGTON D.C. 20210

ORIGINAL SIGNED BY:
William W. Gross
Director
Division of Wage Determinations

Wage Determination No.: **1994-2008**
Revision No.: **17**
Date Of Last Revision: **01/28/2002**

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 TITLE	MINIMUM WAGE RATE
Administrative Support and Clerical Occupations	
Accounting Clerk I	8.76
Accounting Clerk II	10.55
Accounting Clerk III	13.41
Accounting Clerk IV	16.77
Court Reporter	13.58
Dispatcher, Motor Vehicle	14.03
Document Preparation Clerk	12.18
Duplicating Machine Operator	12.18
Film/Tape Librarian	10.72
General Clerk I	8.65
General Clerk II	9.73
General Clerk III	10.42
General Clerk IV	12.19
Housing Referral Assistant	16.22
Key Entry Operator I	9.37
Key Entry Operator II	11.16
Messenger (Courier)	7.39
Order Clerk I	10.22
Order Clerk II	13.88
Personnel Assistant (Employment) I	9.17
Personnel Assistant (Employment) II	12.09
Personnel Assistant (Employment) III	13.51
Personnel Assistant (Employment) IV	13.73
Production Control Clerk	16.25
Rental Clerk	10.72
Scheduler, Maintenance	11.51
Secretary I	11.51
Secretary II	13.58
Secretary III	16.22
Secretary IV	19.75
Secretary V	21.92
Service Order Dispatcher	11.89
Stenographer I	13.44

Stenographer II	15.24
Supply Technician	19.75
Survey Worker (Interviewer)	13.58
Switchboard Operator-Receptionist	8.57
Test Examiner	13.58
Test Proctor	13.58
Travel Clerk I	8.22
Travel Clerk II	8.71
Travel Clerk III	9.29
Word Processor I	11.10
Word Processor II	12.46
Word Processor III	13.93

Automatic Data Processing Occupations

Computer Data Librarian	9.81
Computer Operator I	12.14
Computer Operator II	13.55
Computer Operator III	17.17
Computer Operator IV	17.91
Computer Operator V	19.83
Computer Programmer I (1)	16.22
Computer Programmer II (1)	19.10
Computer Programmer III (1)	22.79
Computer Programmer IV (1)	27.57
Computer Systems Analyst I (1)	24.64
Computer Systems Analyst II (1)	27.62
Computer Systems Analyst III (1)	27.62
Peripheral Equipment Operator	12.14

Automotive Service Occupations

Automotive Body Repairer, Fiberglass	17.50
Automotive Glass Installer	15.94
Automotive Worker	15.94
Electrician, Automotive	16.73
Mobile Equipment Servicer	14.45
Motor Equipment Metal Mechanic	17.50
Motor Equipment Metal Worker	15.94
Motor Vehicle Mechanic	15.98
Motor Vehicle Mechanic Helper	12.52
Motor Vehicle Upholstery Worker	15.22
Motor Vehicle Wrecker	15.94
Painter, Automotive	15.28
Radiator Repair Specialist	15.94
Tire Repairer	12.75
Transmission Repair Specialist	17.50

Food Preparation and Service Occupations

Baker	9.96
Cook I	7.87
Cook II	8.85

Dishwasher	6.95
Food Service Worker	6.95
Meat Cutter	9.99
Waiter/Waitress	6.82

Furniture Maintenance and Repair Occupations

Electrostatic Spray Painter	17.56
Furniture Handler	13.94
Furniture Refinisher	17.56
Furniture Refinisher Helper	14.41
Furniture Repairer, Minor	15.98
Upholsterer	17.56

General Services and Support Occupations

Cleaner, Vehicles	7.99
Elevator Operator	8.06
Gardener	10.22
House Keeping Aid I	7.13
House Keeping Aid II	8.62
Janitor	8.06
Laborer, Grounds Maintenance	8.44
Maid or Houseman	6.63
Pest Controller	9.09
Refuse Collector	8.44
Tractor Operator	10.19
Window Cleaner	8.24

Health Occupations

Dental Assistant	10.98
Emergency Medical Technician (EMT)/Paramedic/Ambulance Driver	11.88
Licensed Practical Nurse I	11.17
Licensed Practical Nurse II	12.54
Licensed Practical Nurse III	14.04
Medical Assistant	9.81
Medical Laboratory Technician	12.53
Medical Record Clerk	11.28
Medical Record Technician	13.60
Nursing Assistant I	7.75
Nursing Assistant II	8.71
Nursing Assistant III	9.50
Nursing Assistant IV	10.66
Pharmacy Technician	12.24
Phlebotomist	11.28
Registered Nurse I	14.90
Registered Nurse II	18.23
Registered Nurse II, Specialist	18.23
Registered Nurse III	22.05
Registered Nurse III, Anesthetist	22.05
Registered Nurse IV	26.43

Information and Arts Occupations

Audiovisual Librarian	21.15
Exhibits Specialist I	17.77
Exhibits Specialist II	21.76
Exhibits Specialist III	26.45
Illustrator I	17.77
Illustrator II	21.76
Illustrator III	26.45
Librarian	19.27
Library Technician	14.28
Photographer I	13.01
Photographer II	15.02
Photographer III	17.99
Photographer IV	22.00
Photographer V	26.70

Laundry, Dry Cleaning, Pressing and Related Occupations

Assembler	6.94
Counter Attendant	6.94
Dry Cleaner	7.29
Finisher, Flatwork, Machine	6.94
Presser, Hand	6.94
Presser, Machine, Drycleaning	6.94
Presser, Machine, Shirts	6.94
Presser, Machine, Wearing Apparel, Laundry	7.32
Sewing Machine Operator	7.64
Tailor	8.36
Washer, Machine	7.46

Machine Tool Operation and Repair Occupations

Machine-Tool Operator (Toolroom)	18.68
Tool and Die Maker	22.78

Material Handling and Packing Occupations

Forklift Operator	14.82
Fuel Distribution System Operator	16.43
Material Coordinator	16.25
Material Expediter	16.25
Material Handling Laborer	9.58
Order Filler	10.87
Production Line Worker (Food Processing)	11.57
Shipping Packer	10.89
Shipping/Receiving Clerk	10.51
Stock Clerk (Shelf Stocker; Store Worker II)	12.11
Store Worker I	8.93
Tools and Parts Attendant	12.44
Warehouse Specialist	11.57

Mechanics and Maintenance and Repair Occupations

Aircraft Mechanic	18.38
Aircraft Mechanic Helper	14.41
Aircraft Quality Control Inspector	20.21
Aircraft Servicer	15.98
Aircraft Worker	16.75
Appliance Mechanic	17.56
Bicycle Repairer	14.66
Cable Splicer	18.38
Carpenter, Maintenance	17.56
Carpet Layer	16.75
Electrician, Maintenance	20.61
Electronics Technician, Maintenance I	14.82
Electronics Technician, Maintenance II	25.55
Electronics Technician, Maintenance III	26.62
Fabric Worker	15.98
Fire Alarm System Mechanic	18.38
Fire Extinguisher Repairer	15.72
Fuel Distribution System Mechanic	18.38
General Maintenance Worker	16.43
Heating, Refrigeration and Air Conditioning Mechanic	18.38
Heavy Equipment Mechanic	18.38
Heavy Equipment Operator	17.87
Instrument Mechanic	18.38
Laborer	8.89
Locksmith	17.56
Machinery Maintenance Mechanic	20.72
Machinist, Maintenance	16.92
Maintenance Trades Helper	14.41
Millwright	18.38
Office Appliance Repairer	17.56
Painter, Aircraft	17.56
Painter, Maintenance	17.56
Pipefitter, Maintenance	18.38
Plumber, Maintenance	17.56
Pneudraulic Systems Mechanic	18.38
Rigger	18.38
Scale Mechanic	16.75
Sheet-Metal Worker, Maintenance	18.38
Small Engine Mechanic	16.75
Telecommunication Mechanic I	18.38
Telecommunication Mechanic II	20.21
Telephone Lineman	18.38
Welder, Combination, Maintenance	18.38
Well Driller	18.38
Woodcraft Worker	18.38
Woodworker	16.43

Miscellaneous Occupations

Animal Caretaker	7.19
Carnival Equipment Operator	7.70

Carnival Equipment Repairer	8.09
Carnival Worker	6.38
Cashier	6.50
Desk Clerk	6.90
Embalmer	18.01
Lifeguard	9.46
Mortician	17.26
Park Attendant (Aide)	10.21
Photofinishing Worker (Photo Lab Tech., Darkroom Tech)	8.87
Recreation Specialist	11.14
Recycling Worker	10.10
Sales Clerk	8.87
School Crossing Guard (Crosswalk Attendant)	7.12
Sport Official	8.87
Survey Party Chief (Chief of Party)	12.11
Surveying Aide	7.45
Surveying Technician (Instr. Person/Surveyor Asst./Instr.)	10.21
Swimming Pool Operator	9.72
Vending Machine Attendant	8.48
Vending Machine Repairer	9.72
Vending Machine Repairer Helper	8.48

Personal Needs Occupations

Child Care Attendant	6.95
Child Care Center Clerk	8.68
Chore Aid	6.82
Homemaker	11.01

Plant and System Operation Occupations

Boiler Tender	18.86
Sewage Plant Operator	17.56
Stationary Engineer	18.86
Ventilation Equipment Tender	14.41
Water Treatment Plant Operator	17.56

Protective Service Occupations

Alarm Monitor	11.60
Corrections Officer	12.80
Court Security Officer	10.88
Detention Officer	12.80
Firefighter	9.62
Guard I	8.73
Guard II	12.11
Police Officer	15.64

Stevedoring/Longshoremen Occupations

Blocker and Bracer	13.48
Hatch Tender	13.48
Line Handler	13.68

Stevedore I	11.66
Stevedore II	14.13

Technical Occupations

Air Traffic Control Specialist, Center (2)	28.33
Air Traffic Control Specialist, Station (2)	19.54
Air Traffic Control Specialist, Terminal (2)	21.51
Archeological Technician I	15.69
Archeological Technician II	17.56
Archeological Technician III	21.76
Cartographic Technician	22.32
Civil Engineering Technician	20.75
Computer Based Training (CBT) Specialist/ Instructor	24.00
Drafter I	13.99
Drafter II	15.69
Drafter III	17.77
Drafter IV	21.76
Engineering Technician I	12.79
Engineering Technician II	15.89
Engineering Technician III	19.09
Engineering Technician IV	26.34
Engineering Technician V	30.74
Engineering Technician VI	37.17
Environmental Technician	16.67
Flight Simulator/Instructor (Pilot)	26.49
Graphic Artist	19.39
Instructor	19.27
Laboratory Technician	14.09
Mathematical Technician	21.61
Paralegal/Legal Assistant I	13.59
Paralegal/Legal Assistant II	17.18
Paralegal/Legal Assistant III	20.96
Paralegal/Legal Assistant IV	25.37
Photooptics Technician	19.16
Technical Writer	23.07
Unexploded (UXO) Safety Escort	19.14
Unexploded (UXO) Sweep Personnel	19.14
Unexploded Ordnance (UXO) Technician I	19.14
Unexploded Ordnance (UXO) Technician II	23.15
Unexploded Ordnance (UXO) Technician III	27.74
Weather Observer, Combined Upper Air and Surface Programs (3)	16.72
Weather Observer, Senior (3)	17.08
Weather Observer, Upper Air (3)	16.72

Transportation/ Mobile Equipment Operation Occupations

Bus Driver	12.67
Parking and Lot Attendant	8.18
Shuttle Bus Driver	11.97
Taxi Driver	9.91
Truckdriver, Heavy Truck	14.71
Truckdriver, Light Truck	11.97

Truckdriver, Medium Truck	13.56
Truckdriver, Tractor-Trailer	15.01

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 $2.56 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 4.174)

THE OCCUPATIONS WHICH HAVE PARENTHESES AFTER THEM RECEIVE THE FOLLOWING BENEFITS (as numbered):

1) Does not apply to employees employed in a bona fide executive, administrative, or professional capacity as defined and delineated in 29 CFR 541. (See CFR 4.156)

2) APPLICABLE TO AIR TRAFFIC CONTROLLERS ONLY - NIGHT DIFFERENTIAL: An employee is entitled to pay for all work performed between the hours of 6:00 P.M. and 6:00 A.M. at the rate of basic pay plus a night pay differential amounting to 10 percent of the rate of basic pay.

3) WEATHER OBSERVERS - NIGHT PAY & SUNDAY PAY: If you work at night as part of a regular tour of duty, you will earn a night differential and receive an additional 10% of basic pay for any hours worked between 6pm and 6am. If you are a full-time employed (40 hours a week) and Sunday is part of your regularly scheduled workweek, you are paid at your rate of basic pay plus a Sunday premium of 25% of your basic rate for each hour of Sunday work which is not overtime (i.e. occasional work on Sunday outside the normal tour of duty is considered overtime work).

**** HAZARDOUS PAY DIFFERENTIAL ****

An 8 percent differential is applicable to employees employed in a position that represents a high degree of hazard when working with or in close proximity to ordinance, explosives, and incendiary materials. This includes work such as screening, blending, dying, mixing, and pressing of sensitive

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.

These differentials are only applicable to work that has been specifically designated by the agency for ordnance, explosives, and incendiary material differential pay.

**** UNIFORM ALLOWANCE ****

If employees are required to wear uniforms in the performance of this contract (either by the terms of the Government contract, by the employer, by the state or local law, etc.), the cost of furnishing such uniforms and maintaining (by laundering or dry cleaning) such uniforms is an expense that may not be borne by an employee where such cost reduces the hourly rate below that required by the wage determination. The Department of Labor will accept payment in accordance with the following standards as compliance:

The contractor or subcontractor is required to furnish all employees with an adequate number of uniforms without cost or to reimburse employees for the actual cost of the uniforms. In addition, where uniform cleaning and maintenance is made the responsibility of the employee, all contractors and subcontractors subject to this wage determination shall (in the absence of a bona fide collective bargaining agreement providing for a different amount, or the furnishing of contrary affirmative proof as to the actual cost), reimburse all employees for such cleaning and maintenance at a rate of $3.35 per week (or $.67 cents per day). However, in those instances where the uniforms furnished are made of "wash and wear" materials, may be routinely washed and dried with other personal garments, and do not require any special treatment such as dry cleaning, daily washing, or commercial laundering in order to meet the cleanliness or appearance standards set by the terms of the Government contract, by the contractor, by law, or by the nature of the work, there is no requirement that employees be reimbursed for uniform maintenance costs.

**** NOTES APPLYING TO THIS WAGE DETERMINATION ****

Source of Occupational Title and Descriptions:
The duties of employees under job titles listed are those described in the

"Service Contract Act Directory of Occupations," Fourth Edition, January 1993, as amended by the Third Supplement, dated March 1997, unless otherwise indicated. This publication may be obtained from the Superintendent of Documents, at 202-783-3238, or by writing to the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Copies of specific job descriptions may also be obtained from the appropriate contracting officer.

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.

REGISTER OF WAGE DETERMINATIONS UNDER THE SERVICE CONTRACT ACT By direction of the Secretary of Labor	U.S. DEPARTMENT OF LABOR EMPLOYMENT STANDARDS ADMINISTRATION WAGE AND HOUR DIVISION WASHINGTON D.C. 20210
William W.Gross Director — Division of Wage Determinations	Wage Determination No.: 1994-2044 Revision No.: 16 Date Of Last Revision: 05/02/2002

State: **California**

Area: **California** County of **Kern**

Fringe Benefits Required Follow the Occupational Listing

OCCUPATION TITLE	MINIMUM WAGE RATE
Administrative Support and Clerical Occupations	
Accounting Clerk I	11.32
Accounting Clerk II	12.35
Accounting Clerk III	13.86
Accounting Clerk IV	17.62
Court Reporter	17.04
Dispatcher, Motor Vehicle	14.52
Document Preparation Clerk	13.14
Duplicating Machine Operator	13.14
Film/Tape Librarian	11.50
General Clerk I	8.99
General Clerk II	10.11
General Clerk III	14.75
General Clerk IV	16.57
Housing Referral Assistant	15.93
Key Entry Operator I	11.13
Key Entry Operator II	13.63
Messenger (Courier)	10.04
Order Clerk I	11.78
Order Clerk II	12.28
Personnel Assistant (Employment) I	10.84
Personnel Assistant (Employment) II	12.17
Personnel Assistant (Employment) III	15.04
Personnel Assistant (Employment) IV	15.55
Production Control Clerk	15.16
Rental Clerk	12.27
Scheduler, Maintenance	12.46
Secretary I	12.46
Secretary II	15.28
Secretary III	15.93
Secretary IV	19.60
Secretary V	21.76
Service Order Dispatcher	14.64
Stenographer I	11.91
Stenographer II	13.80
Supply Technician	19.60
Survey Worker (Interviewer)	14.23
Switchboard Operator-Receptionist	9.74
Test Examiner	15.28
Test Proctor	15.28
Travel Clerk I	9.47
Travel Clerk II	9.97

Travel Clerk III	10.80
Word Processor I	12.22
Word Processor II	15.16
Word Processor III	17.03

Automatic Data Processing Occupations

Computer Data Librarian	12.88
Computer Operator I	12.80
Computer Operator II	14.81
Computer Operator III	17.87
Computer Operator IV	20.00
Computer Operator V	22.16
Computer Programmer I (1)	15.63
Computer Programmer II (1)	18.99
Computer Programmer III (1)	21.74
Computer Programmer IV (1)	26.28
Computer Systems Analyst I (1)	16.36
Computer Systems Analyst II (1)	23.69
Computer Systems Analyst III (1)	25.85
Peripheral Equipment Operator	14.67

Automotive Service Occupations

Automotive Body Repairer, Fiberglass	17.23
Automotive Glass Installer	15.90
Automotive Worker	15.90
Electrician, Automotive	16.55
Mobile Equipment Servicer	14.36
Motor Equipment Metal Mechanic	17.23
Motor Equipment Metal Worker	15.90
Motor Vehicle Mechanic	17.23
Motor Vehicle Mechanic Helper	13.30
Motor Vehicle Upholstery Worker	15.42
Motor Vehicle Wrecker	15.90
Painter, Automotive	16.54
Radiator Repair Specialist	15.90
Tire Repairer	13.87
Transmission Repair Specialist	17.23

Food Preparation and Service Occupations

Baker	12.41
Cook I	11.20
Cook II	12.41
Dishwasher	9.15
Food Service Worker	9.15
Meat Cutter	13.45
Waiter/Waitress	8.77

Furniture Maintenance and Repair Occupations

Electrostatic Spray Painter	16.54
Furniture Handler	12.87
Furniture Refinisher	16.54
Furniture Refinisher Helper	13.30
Furniture Repairer, Minor	15.21
Upholsterer	16.54

General Services and Support Occupations

Cleaner, Vehicles	7.96
Elevator Operator	10.42
Gardener	9.74
House Keeping Aid I	7.96
House Keeping Aid II	9.82
Janitor	9.64
Laborer, Grounds Maintenance	9.33
Maid or Houseman	7.14
Pest Controller	12.14
Refuse Collector	11.93
Tractor Operator	11.06
Window Cleaner	10.63

Health Occupations

Dental Assistant	13.05
Emergency Medical Technician (EMT)/Paramedic/Ambulance Driver	12.63
Licensed Practical Nurse I	12.63
Licensed Practical Nurse II	14.19
Licensed Practical Nurse III	15.88
Medical Assistant	10.39
Medical Laboratory Technician	12.59
Medical Record Clerk	10.89
Medical Record Technician	13.12
Nursing Assistant I	7.48
Nursing Assistant II	8.40
Nursing Assistant III	9.16
Nursing Assistant IV	10.30
Pharmacy Technician	13.37
Phlebotomist	14.19
Registered Nurse I	17.51
Registered Nurse II	21.44
Registered Nurse II, Specialist	21.44
Registered Nurse III	25.93
Registered Nurse III, Anesthetist	25.93
Registered Nurse IV	30.83

Information and Arts Occupations

Audiovisual Librarian	20.01
Exhibits Specialist I	17.88
Exhibits Specialist II	21.28
Exhibits Specialist III	26.31
Illustrator I	15.55
Illustrator II	18.55
Illustrator III	22.87
Librarian	20.64
Library Technician	12.33
Photographer I	12.90
Photographer II	15.38
Photographer III	18.66
Photographer IV	22.83
Photographer V	28.08

Laundry, Dry Cleaning, Pressing and Related Occupations

Assembler	7.87
Counter Attendant	7.87

Dry Cleaner	8.31
Finisher, Flatwork, Machine	7.87
Presser, Hand	7.87
Presser, Machine, Drycleaning	7.87
Presser, Machine, Shirts	7.87
Presser, Machine, Wearing Apparel, Laundry	7.87
Sewing Machine Operator	9.18
Tailor	9.73
Washer, Machine	8.33

Machine Tool Operation and Repair Occupations

Machine-Tool Operator (Toolroom)	18.03
Tool and Die Maker	24.06

Material Handling and Packing Occupations

Forklift Operator	11.77
Fuel Distribution System Operator	16.69
Material Coordinator	13.96
Material Expediter	13.96
Material Handling Laborer	10.38
Order Filler	12.17
Production Line Worker (Food Processing)	12.32
Shipping Packer	12.47
Shipping/Receiving Clerk	12.47
Stock Clerk (Shelf Stocker; Store Worker II)	11.70
Store Worker I	9.38
Tools and Parts Attendant	12.30
Warehouse Specialist	12.30

Mechanics and Maintenance and Repair Occupations

Aircraft Mechanic	20.02
Aircraft Mechanic Helper	15.73
Aircraft Quality Control Inspector	21.22
Aircraft Servicer	18.00
Aircraft Worker	18.80
Appliance Mechanic	16.54
Bicycle Repairer	13.87
Cable Splicer	19.82
Carpenter, Maintenance	17.72
Carpet Layer	15.90
Electrician, Maintenance	20.15
Electronics Technician, Maintenance I	17.97
Electronics Technician, Maintenance II	19.88
Electronics Technician, Maintenance III	21.45
Fabric Worker	16.01
Fire Alarm System Mechanic	19.04
Fire Extinguisher Repairer	15.00
Fuel Distribution System Mechanic	19.81
General Maintenance Worker	17.02
Heating, Refrigeration and Air Conditioning Mechanic	19.04
Heavy Equipment Mechanic	18.95
Heavy Equipment Operator	22.11
Instrument Mechanic	19.29
Laborer	11.28
Locksmith	16.54
Machinery Maintenance Mechanic	20.33
Machinist, Maintenance	18.42

Maintenance Trades Helper	13.30
Millwright	18.70
Office Appliance Repairer	18.03
Painter, Aircraft	16.54
Painter, Maintenance	16.54
Pipefitter, Maintenance	17.23
Plumber, Maintenance	16.54
Pneudraulic Systems Mechanic	19.04
Rigger	22.39
Scale Mechanic	17.02
Sheet-Metal Worker, Maintenance	17.23
Small Engine Mechanic	15.90
Telecommunication Mechanic I	21.77
Telecommunication Mechanic II	23.71
Telephone Lineman	21.77
Welder, Combination, Maintenance	17.23
Well Driller	19.04
Woodcraft Worker	19.04
Woodworker	15.44

Miscellaneous Occupations

Animal Caretaker	9.15
Carnival Equipment Operator	13.24
Carnival Equipment Repairer	14.27
Carnival Worker	8.73
Cashier	8.17
Desk Clerk	8.44
Embalmer	17.93
Lifeguard	9.42
Mortician	17.93
Park Attendant (Aide)	11.84
Photofinishing Worker (Photo Lab Tech., Darkroom Tech)	9.42
Recreation Specialist	12.32
Recycling Worker	15.58
Sales Clerk	9.10
School Crossing Guard (Crosswalk Attendant)	8.09
Sport Official	9.42
Survey Party Chief (Chief of Party)	14.51
Surveying Aide	9.63
Surveying Technician (Instr. Person/Surveyor Asst./Instr.)	13.19
Swimming Pool Operator	12.72
Vending Machine Attendant	10.95
Vending Machine Repairer	13.72
Vending Machine Repairer Helper	11.80

Personal Needs Occupations

Child Care Attendant	8.76
Child Care Center Clerk	13.61
Chore Aid	8.04
Homemaker	14.56

Plant and System Operation Occupations

Boiler Tender	19.81
Sewage Plant Operator	20.07
Stationary Engineer	23.75
Ventilation Equipment Tender	13.99
Water Treatment Plant Operator	20.07

Protective Service Occupations

Alarm Monitor	12.80
Corrections Officer	22.51
Court Security Officer	24.02
Detention Officer	24.02
Firefighter	24.02
Guard I	9.80
Guard II	10.70
Police Officer	25.52

Stevedoring/Longshoremen Occupations

Blocker and Bracer	16.62
Hatch Tender	16.62
Line Handler	16.62
Stevedore I	14.08
Stevedore II	17.61

Technical Occupations

Air Traffic Control Specialist, Center (2)	28.21
Air Traffic Control Specialist, Station (2)	19.46
Air Traffic Control Specialist, Terminal (2)	21.43
Archeological Technician I	14.85
Archeological Technician II	16.61
Archeological Technician III	20.56
Cartographic Technician	26.30
Civil Engineering Technician	21.90
Computer Based Training (CBT) Specialist/ Instructor	16.36
Drafter I	14.51
Drafter II	17.30
Drafter III	24.04
Drafter IV	24.84
Engineering Technician I	11.33
Engineering Technician II	13.52
Engineering Technician III	18.79
Engineering Technician IV	19.89
Engineering Technician V	28.14
Engineering Technician VI	29.43
Environmental Technician	16.63
Flight Simulator/Instructor (Pilot)	23.69
Graphic Artist	13.19
Instructor	16.36
Laboratory Technician	15.59
Mathematical Technician	19.88
Paralegal/Legal Assistant I	15.00
Paralegal/Legal Assistant II	19.07
Paralegal/Legal Assistant III	23.33
Paralegal/Legal Assistant IV	28.21
Photooptics Technician	21.82
Technical Writer	25.67
Unexploded (UXO) Safety Escort	17.93
Unexploded (UXO) Sweep Personnel	17.93
Unexploded Ordnance (UXO) Technician I	17.93
Unexploded Ordnance (UXO) Technician II	21.70
Unexploded Ordnance (UXO) Technician III	26.01
Weather Observer, Combined Upper Air and Surface Programs (3)	15.49
Weather Observer, Senior (3)	17.22
Weather Observer, Upper Air (3)	15.49

Transportation/ Mobile Equipment Operation Occupations

Bus Driver	13.77
Parking and Lot Attendant	6.73
Shuttle Bus Driver	11.20
Taxi Driver	10.48
Truckdriver, Heavy Truck	15.07
Truckdriver, Light Truck	11.20
Truckdriver, Medium Truck	14.81
Truckdriver, Tractor-Trailer	15.07

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 $2.56 per hour computed on the basis of all hours worked by service employees employed on the contract.

VACATION: 2 weeks paid vacation after 1 year of service with a contractor or successor; 3 weeks after 5 years, and 4 weeks after 15 years. Length of service includes the whole span of continuous service with the present contractor or successor, wherever employed, and with the predecessor contractors in the performance of similar work at the same Federal facility. (Reg. 29 CFR 4.173)

HOLIDAYS: A minimum of ten paid holidays per year: New Year's Day, Martin Luther King
Jr.'s Birthday, Washington's Birthday, Memorial Day, Independence Day, Labor Day, Columbus Day, Veterans' Day, Thanksgiving Day, and Christmas Day. (A contractor may substitute for any of the named holidays another day off with pay in accordance with a plan communicated to the employees involved.) (See 29 CFR 4.174)

THE OCCUPATIONS WHICH HAVE PARENTHESES AFTER THEM RECEIVE THE FOLLOWING BENEFITS (as numbered):

1) Does not apply to employees employed in a bona fide executive, administrative, or professional capacity as defined and delineated in 29 CFR 541. (See CFR 4.156)

2) APPLICABLE TO AIR TRAFFIC CONTROLLERS ONLY - NIGHT DIFFERENTIAL: An employee is entitled to pay for all work performed between the hours of 6:00 P.M. and 6:00 A.M. at the rate of basic pay plus a night pay differential amounting to 10 percent of the rate of basic pay.

3) WEATHER OBSERVERS - NIGHT PAY & SUNDAY PAY: If you work at night as part of a regular tour of duty, you will earn a night differential and receive an additional 10% of basic pay for any hours worked between 6pm and 6am. If you are a full-time employed (40 hours a week) and Sunday is part of your regularly scheduled workweek, you are paid at your rate of basic pay plus a Sunday premium of 25% of your basic rate for each hour of Sunday work which is not overtime (i.e. occasional work on Sunday outside the normal tour of duty is considered overtime work).

HAZARDOUS PAY DIFFERENTIAL

An 8 percent differential is applicable to employees employed in a position that represents a high degree of hazard when working with or in close proximity to ordinance, explosives, and incendiary materials. This includes work such as screening, blending, dying, mixing, and pressing of sensitive ordance, explosives, and pyrotechnic compositions such as lead azide, black powder and photoflash powder. All dry-house activities involving propellants or explosives. Demilitarization,

modification, renovation, demolition, and maintenance operations on sensitive ordnance, explosives and incendiary materials. All operations involving 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 ordance, (or employees possibly adjacent to) explosives and incendiary materials which involves potential injury such as laceration of hands, face, or arms of the employee engaged in the operation, irritation of the skin, minor burns and the like; minimal damage to immediate or adjacent work area or equipment being used. All operations involving, unloading, storage, and hauling of ordance, explosive, and incendiary ordnance material other than small arms ammunition.

These differentials are only applicable to work that has been specifically designated by the agency for ordance, explosives, and incendiary material differential pay.

**** UNIFORM ALLOWANCE ****

If employees are required to wear uniforms in the performance of this contract (either by the terms of the Government contract, by the employer, by the state or local law, etc.), the cost of furnishing such uniforms and maintaining (by laundering or dry cleaning) such uniforms is an expense that may not be borne by an employee where such cost reduces the hourly rate below that required by the wage determination. The Department of Labor will accept payment in accordance with the following standards as compliance:

The contractor or subcontractor is required to furnish all employees with an adequate number of uniforms without cost or to reimburse employees for the actual cost of the uniforms. In addition, where uniform cleaning and maintenance is made the responsibility of the employee, all contractors and subcontractors subject to this wage determination shall (in the absence of a bona fide collective bargaining agreement providing for a different amount, or the furnishing of contrary affirmative proof as to the actual cost), reimburse all employees for such cleaning and maintenance at a rate of $3.35 per week (or $.67 cents per day). However, in those instances where the uniforms furnished are made of "wash and wear" materials, may be routinely washed and dried with other personal garments, and do not require any special treatment such as dry cleaning, daily washing, or commercial laundering in order to meet the cleanliness or appearance standards set by the terms of the Government contract, by the contractor, by law, or by the nature of the work, there is no requirement that employees be reimbursed for uniform maintenance costs.

**** NOTES APPLYING TO THIS WAGE DETERMINATION ****

Source of Occupational Title and Descriptions:

The duties of employees under job titles listed are those described in the "Service Contract Act Directory of Occupations," Fourth Edition, January 1993, as amended by the Third Supplement, dated March 1997, unless otherwise indicated. This publication may be obtained from the Superintendent of Documents, at 202-783-3238, or by writing to the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Copies of specific job descriptions may also be obtained from the appropriate contracting officer.

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.

REGISTER OF WAGE DETERMINATIONS UNDER THE SERVICE CONTRACT ACT By direction of the Secretary of Labor	U.S. DEPARTMENT OF LABOR EMPLOYMENT STANDARDS ADMINISTRATION WAGE AND HOUR DIVISION WASHINGTON D.C. 20210
William W.Gross Director Division of Wage Determinations	Wage Determination No.: 1994-2048 Revision No.: 18 Date Of Last Revision: 09/10/2002

State: California

Area: California Counties of Los Angeles, Orange

OCCUPATION NOTES:
Heating, Air Conditioning and Refrigeration: Wage rates and fringe benefits can be found on Wage Determinations 1986-0879.
Laundry: Wage rates and fringe benefits can be found on Wage Determination 1977-1297.

Fringe Benefits Required Follow the Occupational Listing

OCCUPATION TITLE	MINIMUM WAGE RATE
Administrative Support and Clerical Occupations	
Accounting Clerk I	10.25
Accounting Clerk II	11.17
Accounting Clerk III	14.39
Accounting Clerk IV	15.84
Court Reporter	16.38
Dispatcher, Motor Vehicle	16.38
Document Preparation Clerk	13.50
Duplicating Machine Operator	12.77
Film/Tape Librarian	12.84
General Clerk I	8.07
General Clerk II	10.60
General Clerk III	12.14
General Clerk IV	14.04
Housing Referral Assistant	18.29
Key Entry Operator I	10.32
Key Entry Operator II	12.98
Messenger (Courier)	9.28
Order Clerk I	12.99
Order Clerk II	14.09
Personnel Assistant (Employment) I	13.70
Personnel Assistant (Employment) II	13.97
Personnel Assistant (Employment) III	18.48
Personnel Assistant (Employment) IV	22.26
Production Control Clerk	16.23
Rental Clerk	13.90
Scheduler, Maintenance	13.90
Secretary I	13.90
Secretary II	17.02
Secretary III	18.29
Secretary IV	21.37
Secretary V	25.48
Service Order Dispatcher	14.12
Stenographer I	13.56
Stenographer II	15.24
Supply Technician	21.37
Survey Worker (Interviewer)	16.13

Switchboard Operator-Receptionist	11.40
Test Examiner	17.02
Test Proctor	17.02
Travel Clerk I	11.20
Travel Clerk II	12.19
Travel Clerk III	13.01
Word Processor I	14.10
Word Processor II	15.08
Word Processor III	17.33

Automatic Data Processing Occupations

Computer Data Librarian	12.71
Computer Operator I	13.98
Computer Operator II	16.17
Computer Operator III	19.53
Computer Operator IV	23.05
Computer Operator V	25.52
Computer Programmer I (1)	17.45
Computer Programmer II (1)	20.50
Computer Programmer III (1)	25.70
Computer Programmer IV (1)	27.62
Computer Systems Analyst I (1)	26.84
Computer Systems Analyst II (1)	27.62
Computer Systems Analyst III (1)	27.63
Peripheral Equipment Operator	15.04

Automotive Service Occupations

Automotive Body Repairer, Fiberglass	19.28
Automotive Glass Installer	17.94
Automotive Worker	17.94
Electrician, Automotive	18.69
Mobile Equipment Servicer	16.15
Motor Equipment Metal Mechanic	19.45
Motor Equipment Metal Worker	17.94
Motor Vehicle Mechanic	19.16
Motor Vehicle Mechanic Helper	14.95
Motor Vehicle Upholstery Worker	17.19
Motor Vehicle Wrecker	17.94
Painter, Automotive	18.69
Radiator Repair Specialist	17.94
Tire Repairer	15.47
Transmission Repair Specialist	19.45

Food Preparation and Service Occupations

Baker	11.95
Cook I	10.78
Cook II	11.95
Dishwasher	7.66
Food Service Worker	8.35
Meat Cutter	11.95
Waiter/Waitress	8.40

Furniture Maintenance and Repair Occupations

Electrostatic Spray Painter	18.52
Furniture Handler	12.42
Furniture Refinisher	18.52

Furniture Refinisher Helper	14.82
Furniture Repairer, Minor	17.04
Upholsterer	18.52

General Services and Support Occupations

Cleaner, Vehicles	8.76
Elevator Operator	9.29
Gardener	12.40
House Keeping Aid I	7.85
House Keeping Aid II	8.86
Janitor	8.72
Laborer, Grounds Maintenance	9.66
Maid or Houseman	7.85
Pest Controller	13.16
Refuse Collector	9.60
Tractor Operator	11.51
Window Cleaner	10.28

Health Occupations

Dental Assistant	13.43
Emergency Medical Technician (EMT)/Paramedic/Ambulance Driver	14.61
Licensed Practical Nurse I	14.25
Licensed Practical Nurse II	15.96
Licensed Practical Nurse III	17.89
Medical Assistant	12.71
Medical Laboratory Technician	13.06
Medical Record Clerk	12.01
Medical Record Technician	14.48
Nursing Assistant I	8.24
Nursing Assistant II	9.27
Nursing Assistant III	10.11
Nursing Assistant IV	11.35
Pharmacy Technician	14.19
Phlebotomist	11.35
Registered Nurse I	21.19
Registered Nurse II	27.02
Registered Nurse II, Specialist	27.04
Registered Nurse III	32.97
Registered Nurse III, Anesthetist	32.97
Registered Nurse IV	40.88

Information and Arts Occupations

Audiovisual Librarian	18.98
Exhibits Specialist I	20.19
Exhibits Specialist II	24.99
Exhibits Specialist III	28.17
Illustrator I	20.17
Illustrator II	24.99
Illustrator III	28.17
Librarian	24.05
Library Technician	16.27
Photographer I	16.42
Photographer II	19.86
Photographer III	24.61
Photographer IV	27.74
Photographer V	33.56

Machine Tool Operation and Repair Occupations

Machine-Tool Operator (Toolroom)	18.52
Tool and Die Maker	23.95

Material Handling and Packing Occupations

Forklift Operator	12.95
Fuel Distribution System Operator	16.01
Material Coordinator	16.34
Material Expediter	16.34
Material Handling Laborer	11.47
Order Filler	12.38
Production Line Worker (Food Processing)	14.22
Shipping Packer	11.93
Shipping/Receiving Clerk	11.12
Stock Clerk (Shelf Stocker; Store Worker II)	12.62
Store Worker I	9.38
Tools and Parts Attendant	14.35
Warehouse Specialist	14.22

Mechanics and Maintenance and Repair Occupations

Aircraft Mechanic	21.21
Aircraft Mechanic Helper	14.82
Aircraft Quality Control Inspector	20.07
Aircraft Servicer	17.04
Aircraft Worker	17.78
Appliance Mechanic	18.52
Bicycle Repairer	15.47
Cable Splicer	23.50
Carpenter, Maintenance	20.36
Carpet Layer	17.78
Electrician, Maintenance	23.43
Electronics Technician, Maintenance I	17.47
Electronics Technician, Maintenance II	22.81
Electronics Technician, Maintenance III	26.53
Fabric Worker	17.04
Fire Alarm System Mechanic	19.28
Fire Extinguisher Repairer	16.01
Fuel Distribution System Mechanic	19.42
General Maintenance Worker	17.78
Heavy Equipment Mechanic	19.90
Heavy Equipment Operator	24.39
Instrument Mechanic	20.16
Laborer	9.61
Locksmith	18.52
Machinery Maintenance Mechanic	18.57
Machinist, Maintenance	20.17
Maintenance Trades Helper	14.82
Millwright	21.56
Office Appliance Repairer	18.52
Painter, Aircraft	18.52
Painter, Maintenance	18.52
Pipefitter, Maintenance	19.82
Plumber, Maintenance	19.04
Pneudraulic Systems Mechanic	19.28
Rigger	21.90
Scale Mechanic	17.78
Sheet-Metal Worker, Maintenance	19.28

Small Engine Mechanic	17.78
Telecommunication Mechanic I	19.28
Telecommunication Mechanic II	20.91
Telephone Lineman	19.28
Welder, Combination, Maintenance	19.28
Well Driller	20.63
Woodcraft Worker	19.28
Woodworker	16.01

Miscellaneous Occupations

Animal Caretaker	9.21
Carnival Equipment Operator	11.01
Carnival Equipment Repairer	11.86
Carnival Worker	8.35
Cashier	10.70
Desk Clerk	12.65
Embalmer	19.16
Lifeguard	10.07
Mortician	19.39
Park Attendant (Aide)	12.64
Photofinishing Worker (Photo Lab Tech., Darkroom Tech)	12.40
Recreation Specialist	16.23
Recycling Worker	12.66
Sales Clerk	10.67
School Crossing Guard (Crosswalk Attendant)	8.38
Sport Official	10.07
Survey Party Chief (Chief of Party)	28.47
Surveying Aide	15.66
Surveying Technician (Instr. Person/Surveyor Asst./Instr.)	21.43
Swimming Pool Operator	13.74
Vending Machine Attendant	11.51
Vending Machine Repairer	13.74
Vending Machine Repairer Helper	11.51

Personal Needs Occupations

Child Care Attendant	11.00
Child Care Center Clerk	13.72
Chore Aid	8.05
Homemaker	16.44

Plant and System Operation Occupations

Boiler Tender	21.03
Sewage Plant Operator	23.26
Stationary Engineer	21.30
Ventilation Equipment Tender	17.08
Water Treatment Plant Operator	21.30

Protective Service Occupations

Alarm Monitor	16.15
Corrections Officer	22.05
Court Security Officer	22.83
Detention Officer	22.10
Firefighter	24.37
Guard I	7.74
Guard II	16.15
Police Officer	28.22

Stevedoring/Longshoremen Occupations

Blocker and Bracer	17.07
Hatch Tender	17.07
Line Handler	17.07
Stevedore I	17.90
Stevedore II	19.48

Technical Occupations

Air Traffic Control Specialist, Center (2)	30.15
Air Traffic Control Specialist, Station (2)	20.79
Air Traffic Control Specialist, Terminal (2)	22.89
Archeological Technician I	18.03
Archeological Technician II	20.17
Archeological Technician III	24.99
Cartographic Technician	26.13
Civil Engineering Technician	24.31
Computer Based Training (CBT) Specialist/ Instructor	23.34
Drafter I	17.09
Drafter II	19.17
Drafter III	23.16
Drafter IV	28.74
Engineering Technician I	13.88
Engineering Technician II	15.59
Engineering Technician III	18.30
Engineering Technician IV	22.28
Engineering Technician V	25.55
Engineering Technician VI	30.92
Environmental Technician	21.05
Flight Simulator/Instructor (Pilot)	27.62
Graphic Artist	21.22
Instructor	22.14
Laboratory Technician	16.15
Mathematical Technician	24.77
Paralegal/Legal Assistant I	15.91
Paralegal/Legal Assistant II	18.73
Paralegal/Legal Assistant III	22.85
Paralegal/Legal Assistant IV	27.73
Photooptics Technician	21.21
Technical Writer	24.96
Unexploded (UXO) Safety Escort	19.16
Unexploded (UXO) Sweep Personnel	19.16
Unexploded Ordnance (UXO) Technician I	19.16
Unexploded Ordnance (UXO) Technician II	23.18
Unexploded Ordnance (UXO) Technician III	27.78
Weather Observer, Combined Upper Air and Surface Programs (3)	17.16
Weather Observer, Senior (3)	19.07
Weather Observer, Upper Air (3)	17.16

Transportation/ Mobile Equipment Operation Occupations

Bus Driver	15.41
Parking and Lot Attendant	7.22
Shuttle Bus Driver	11.12
Taxi Driver	9.56
Truckdriver, Heavy Truck	18.12
Truckdriver, Light Truck	11.12
Truckdriver, Medium Truck	16.95
Truckdriver, Tractor-Trailer	18.12

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 $2.56 per hour computed on the basis of all hours worked by service employees employed on the contract.

VACATION: 2 weeks paid vacation after 1 year of service with a contractor or successor; 3 weeks after 5 years, and 4 weeks after 15 years. Length of service includes the whole span of continuous service with the present contractor or successor, wherever employed, and with the predecessor contractors in the performance of similar work at the same Federal facility. (Reg. 29 CFR 4.173)

HOLIDAYS: A minimum of ten paid holidays per year: New Year's Day, Martin Luther King
Jr.'s Birthday, Washington's Birthday, Memorial Day, Independence Day, Labor Day, Columbus Day, Veterans' Day, Thanksgiving Day, and Christmas Day. (A contractor may substitute for any of the named holidays another day off with pay in accordance with a plan communicated to the employees involved.) (See 29 CFR 4.174)

THE OCCUPATIONS WHICH HAVE PARENTHESES AFTER THEM RECEIVE THE FOLLOWING BENEFITS (as numbered):

1) Does not apply to employees employed in a bona fide executive, administrative, or professional capacity as defined and delineated in 29 CFR 541. (See CFR 4.156)

2) APPLICABLE TO AIR TRAFFIC CONTROLLERS ONLY - NIGHT DIFFERENTIAL: An employee is entitled to pay for all work performed between the hours of 6:00 P.M. and 6:00 A.M. at the rate of basic pay plus a night pay differential amounting to 10 percent of the rate of basic pay.

3) WEATHER OBSERVERS - NIGHT PAY & SUNDAY PAY: If you work at night as part of a regular tour of duty, you will earn a night differential and receive an additional 10% of basic pay for any hours worked between 6pm and 6am. If you are a full-time employed (40 hours a week) and Sunday is part of your regularly scheduled workweek, you are paid at your rate of basic pay plus a Sunday premium of 25% of your basic rate for each hour of Sunday work which is not overtime (i.e. occasional work on Sunday outside the normal tour of duty is considered overtime work).

HAZARDOUS PAY DIFFERENTIAL

An 8 percent differential is applicable to employees employed in a position that represents a high degree of hazard when working with or in close proximity to ordinance, explosives, and incendiary materials. This includes work such as screening, blending, dying, mixing, and pressing of sensitive ordance, explosives, and pyrotechnic compositions such as lead azide, black powder and photoflash powder. All dry-house activities involving propellants or explosives. Demilitarization, modification, renovation, demolition, and maintenance operations on sensitive ordnance, explosives and incendiary materials. All operations involving 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 ordance, (or employees possibly adjacent to) explosives and incendiary materials which involves potential injury such as laceration of hands, face, or arms of the employee engaged in the operation, irritation of the skin, minor burns and the like; minimal damage to immediate or adjacent work area or equipment being used. All operations involving,

unloading, storage, and hauling of ordance, explosive, and incendiary ordnance material other than small arms ammunition.

These differentials are only applicable to work that has been specifically designated by the agency for ordance, explosives, and incendiary material differential pay.

**** UNIFORM ALLOWANCE ****

If employees are required to wear uniforms in the performance of this contract (either by the terms of the Government contract, by the employer, by the state or local law, etc.), the cost of furnishing such uniforms and maintaining (by laundering or dry cleaning) such uniforms is an expense that may not be borne by an employee where such cost reduces the hourly rate below that required by the wage determination. The Department of Labor will accept payment in accordance with the following standards as compliance:

The contractor or subcontractor is required to furnish all employees with an adequate number of uniforms without cost or to reimburse employees for the actual cost of the uniforms. In addition, where uniform cleaning and maintenance is made the responsibility of the employee, all contractors and subcontractors subject to this wage determination shall (in the absence of a bona fide collective bargaining agreement providing for a different amount, or the furnishing of contrary affirmative proof as to the actual cost), reimburse all employees for such cleaning and maintenance at a rate of $3.35 per week (or $.67 cents per day). However, in those instances where the uniforms furnished are made of "wash and wear" materials, may be routinely washed and dried with other personal garments, and do not require any special treatment such as dry cleaning, daily washing, or commercial laundering in order to meet the cleanliness or appearance standards set by the terms of the Government contract, by the contractor, by law, or by the nature of the work, there is no requirement that employees be reimbursed for uniform maintenance costs.

**** NOTES APPLYING TO THIS WAGE DETERMINATION ****

Source of Occupational Title and Descriptions:

The duties of employees under job titles listed are those described in the "Service Contract Act Directory of Occupations," Fourth Edition, January 1993, as amended by the Third Supplement, dated March 1997, unless otherwise indicated. This publication may be obtained from the Superintendent of Documents, at 202-783-3238, or by writing to the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Copies of specific job descriptions may also be obtained from the appropriate contracting officer.

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.

REGISTER OF WAGE DETERMINATIONS UNDER THE SERVICE CONTRACT ACT By direction of the Secretary of Labor	U.S. DEPARTMENT OF LABOR EMPLOYMENT STANDARDS ADMINISTRATION WAGE AND HOUR DIVISION WASHINGTON D.C. 20210
William W.Gross Director — Division of Wage Determinations	Wage Determination No.: 1994-2054 Revision No.: 17 Date Of Last Revision: 08/13/2002

State: California

Area: California Counties of Riverside, San Bernardino

Fringe Benefits Required Follow the Occupational Listing

OCCUPATION TITLE	MINIMUM WAGE RATE
Administrative Support and Clerical Occupations	
Accounting Clerk I	11.02
Accounting Clerk II	11.02
Accounting Clerk III	13.76
Accounting Clerk IV	15.42
Court Reporter	16.32
Dispatcher, Motor Vehicle	16.32
Document Preparation Clerk	13.50
Duplicating Machine Operator	12.27
Film/Tape Librarian	12.29
General Clerk I	7.87
General Clerk II	10.60
General Clerk III	12.10
General Clerk IV	13.46
Housing Referral Assistant	18.29
Key Entry Operator I	10.51
Key Entry Operator II	12.17
Messenger (Courier)	8.22
Order Clerk I	11.11
Order Clerk II	13.87
Personnel Assistant (Employment) I	13.70
Personnel Assistant (Employment) II	13.98
Personnel Assistant (Employment) III	15.77
Personnel Assistant (Employment) IV	17.72
Production Control Clerk	14.59
Rental Clerk	13.50
Scheduler, Maintenance	13.50
Secretary I	13.50
Secretary II	16.32
Secretary III	18.29
Secretary IV	20.89
Secretary V	24.62
Service Order Dispatcher	13.50
Stenographer I	12.03
Stenographer II	13.50
Supply Technician	20.89
Survey Worker (Interviewer)	14.19
Switchboard Operator-Receptionist	11.02
Test Examiner	16.26
Test Proctor	16.26
Travel Clerk I	10.21
Travel Clerk II	10.84

Travel Clerk III	11.48
Word Processor I	11.95
Word Processor II	15.08
Word Processor III	15.20

Automatic Data Processing Occupations

Computer Data Librarian	13.09
Computer Operator I	12.83
Computer Operator II	14.95
Computer Operator III	17.95
Computer Operator IV	19.94
Computer Operator V	20.79
Computer Programmer I (1)	14.12
Computer Programmer II (1)	17.49
Computer Programmer III (1)	22.20
Computer Programmer IV (1)	26.87
Computer Systems Analyst I (1)	25.94
Computer Systems Analyst II (1)	27.62
Computer Systems Analyst III (1)	27.62
Peripheral Equipment Operator	12.83

Automotive Service Occupations

Automotive Body Repairer, Fiberglass	17.20
Automotive Glass Installer	17.53
Automotive Worker	17.53
Electrician, Automotive	18.64
Mobile Equipment Servicer	15.99
Motor Equipment Metal Mechanic	19.01
Motor Equipment Metal Worker	17.53
Motor Vehicle Mechanic	19.16
Motor Vehicle Mechanic Helper	14.84
Motor Vehicle Upholstery Worker	16.80
Motor Vehicle Wrecker	17.53
Painter, Automotive	18.28
Radiator Repair Specialist	17.53
Tire Repairer	13.98
Transmission Repair Specialist	19.01

Food Preparation and Service Occupations

Baker	14.36
Cook I	13.10
Cook II	14.36
Dishwasher	9.22
Food Service Worker	9.22
Meat Cutter	14.36
Waiter/Waitress	10.26

Furniture Maintenance and Repair Occupations

Electrostatic Spray Painter	16.51
Furniture Handler	11.33
Furniture Refinisher	16.51
Furniture Refinisher Helper	13.43
Furniture Repairer, Minor	15.20
Upholsterer	16.51

General Services and Support Occupations

Cleaner, Vehicles	10.14
Elevator Operator	9.22
Gardener	15.07
House Keeping Aid I	8.18
House Keeping Aid II	9.22
Janitor	9.22
Laborer, Grounds Maintenance	11.80
Maid or Houseman	8.18
Pest Controller	13.78
Refuse Collector	11.66
Tractor Operator	13.98
Window Cleaner	10.26

Health Occupations

Dental Assistant	12.01
Emergency Medical Technician (EMT)/Paramedic/Ambulance Driver	13.41
Licensed Practical Nurse I	14.01
Licensed Practical Nurse II	15.74
Licensed Practical Nurse III	16.34
Medical Assistant	10.74
Medical Laboratory Technician	12.34
Medical Record Clerk	11.22
Medical Record Technician	13.53
Nursing Assistant I	7.74
Nursing Assistant II	8.70
Nursing Assistant III	9.49
Nursing Assistant IV	10.31
Pharmacy Technician	13.39
Phlebotomist	11.85
Registered Nurse I	22.03
Registered Nurse II	25.29
Registered Nurse II, Specialist	27.04
Registered Nurse III	31.00
Registered Nurse III, Anesthetist	31.00
Registered Nurse IV	37.16

Information and Arts Occupations

Audiovisual Librarian	18.48
Exhibits Specialist I	18.71
Exhibits Specialist II	24.13
Exhibits Specialist III	29.92
Illustrator I	17.18
Illustrator II	21.34
Illustrator III	27.47
Librarian	23.95
Library Technician	13.16
Photographer I	13.19
Photographer II	17.01
Photographer III	21.94
Photographer IV	27.20
Photographer V	32.89

Laundry, Dry Cleaning, Pressing and Related Occupations

Assembler	7.38
Counter Attendant	7.38

Dry Cleaner	9.43
Finisher, Flatwork, Machine	7.38
Presser, Hand	7.38
Presser, Machine, Drycleaning	7.38
Presser, Machine, Shirts	7.38
Presser, Machine, Wearing Apparel, Laundry	7.38
Sewing Machine Operator	10.17
Tailor	10.88
Washer, Machine	8.03

Machine Tool Operation and Repair Occupations

Machine-Tool Operator (Toolroom)	18.16
Tool and Die Maker	20.93

Material Handling and Packing Occupations

Forklift Operator	14.58
Fuel Distribution System Operator	15.92
Material Coordinator	15.63
Material Expediter	15.63
Material Handling Laborer	16.24
Order Filler	14.17
Production Line Worker (Food Processing)	13.81
Shipping Packer	11.09
Shipping/Receiving Clerk	10.42
Stock Clerk (Shelf Stocker; Store Worker II)	12.74
Store Worker I	9.38
Tools and Parts Attendant	13.81
Warehouse Specialist	13.81

Mechanics and Maintenance and Repair Occupations

Aircraft Mechanic	18.92
Aircraft Mechanic Helper	13.43
Aircraft Quality Control Inspector	18.84
Aircraft Servicer	15.20
Aircraft Worker	16.06
Appliance Mechanic	17.67
Bicycle Repairer	13.98
Cable Splicer	21.76
Carpenter, Maintenance	20.36
Carpet Layer	18.24
Electrician, Maintenance	20.30
Electronics Technician, Maintenance I	21.19
Electronics Technician, Maintenance II	22.18
Electronics Technician, Maintenance III	22.96
Fabric Worker	16.72
Fire Alarm System Mechanic	18.15
Fire Extinguisher Repairer	14.47
Fuel Distribution System Mechanic	18.92
General Maintenance Worker	13.81
Heating, Refrigeration and Air Conditioning Mechanic	17.20
Heavy Equipment Mechanic	18.49
Heavy Equipment Operator	21.76
Instrument Mechanic	19.55
Laborer	10.60
Locksmith	16.51
Machinery Maintenance Mechanic	17.20
Machinist, Maintenance	18.99

Maintenance Trades Helper	13.43
Millwright	20.04
Office Appliance Repairer	17.28
Painter, Aircraft	16.54
Painter, Maintenance	16.54
Pipefitter, Maintenance	17.20
Plumber, Maintenance	17.28
Pneudraulic Systems Mechanic	17.20
Rigger	18.63
Scale Mechanic	17.44
Sheet-Metal Worker, Maintenance	17.20
Small Engine Mechanic	15.86
Telecommunication Mechanic I	20.53
Telecommunication Mechanic II	22.61
Telephone Lineman	18.66
Welder, Combination, Maintenance	17.20
Well Driller	21.16
Woodcraft Worker	17.20
Woodworker	14.47

Miscellaneous Occupations

Animal Caretaker	11.23
Carnival Equipment Operator	12.16
Carnival Equipment Repairer	13.10
Carnival Worker	9.22
Cashier	10.11
Desk Clerk	11.25
Embalmer	18.21
Lifeguard	10.07
Mortician	19.16
Park Attendant (Aide)	12.64
Photofinishing Worker (Photo Lab Tech., Darkroom Tech)	9.62
Recreation Specialist	14.92
Recycling Worker	15.38
Sales Clerk	10.02
School Crossing Guard (Crosswalk Attendant)	9.22
Sport Official	10.07
Survey Party Chief (Chief of Party)	18.47
Surveying Aide	9.75
Surveying Technician (Instr. Person/Surveyor Asst./Instr.)	13.38
Swimming Pool Operator	14.36
Vending Machine Attendant	12.16
Vending Machine Repairer	14.36
Vending Machine Repairer Helper	12.16

Personal Needs Occupations

Child Care Attendant	10.03
Child Care Center Clerk	12.52
Chore Aid	8.18
Homemaker	13.56

Plant and System Operation Occupations

Boiler Tender	18.92
Sewage Plant Operator	20.89
Stationary Engineer	21.76
Ventilation Equipment Tender	15.45
Water Treatment Plant Operator	20.85

Protective Service Occupations

Alarm Monitor	9.00
Corrections Officer	23.51
Court Security Officer	21.82
Detention Officer	21.82
Firefighter	18.02
Guard I	8.06
Guard II	9.00
Police Officer	25.73

Stevedoring/Longshoremen Occupations

Blocker and Bracer	16.29
Hatch Tender	16.29
Line Handler	16.29
Stevedore I	15.63
Stevedore II	18.60

Technical Occupations

Air Traffic Control Specialist, Center (2)	30.15
Air Traffic Control Specialist, Station (2)	20.79
Air Traffic Control Specialist, Terminal (2)	22.89
Archeological Technician I	16.63
Archeological Technician II	17.26
Archeological Technician III	23.04
Cartographic Technician	25.23
Civil Engineering Technician	21.94
Computer Based Training (CBT) Specialist/ Instructor	25.94
Drafter I	14.91
Drafter II	16.73
Drafter III	19.94
Drafter IV	25.80
Engineering Technician I	13.41
Engineering Technician II	15.06
Engineering Technician III	16.85
Engineering Technician IV	20.87
Engineering Technician V	25.52
Engineering Technician VI	30.88
Environmental Technician	19.94
Flight Simulator/Instructor (Pilot)	27.62
Graphic Artist	20.54
Instructor	20.54
Laboratory Technician	17.17
Mathematical Technician	24.00
Paralegal/Legal Assistant I	17.23
Paralegal/Legal Assistant II	20.09
Paralegal/Legal Assistant III	24.56
Paralegal/Legal Assistant IV	29.73
Photooptics Technician	18.97
Technical Writer	24.43
Unexploded (UXO) Safety Escort	19.16
Unexploded (UXO) Sweep Personnel	19.16
Unexploded Ordnance (UXO) Technician I	19.16
Unexploded Ordnance (UXO) Technician II	23.18
Unexploded Ordnance (UXO) Technician III	27.78
Weather Observer, Combined Upper Air and Surface Programs (3)	16.39
Weather Observer, Senior (3)	18.20
Weather Observer, Upper Air (3)	16.39

Transportation/ Mobile Equipment Operation Occupations

Bus Driver	15.50
Parking and Lot Attendant	7.22
Shuttle Bus Driver	10.92
Taxi Driver	8.82
Truckdriver, Heavy Truck	19.23
Truckdriver, Light Truck	11.48
Truckdriver, Medium Truck	18.07
Truckdriver, Tractor-Trailer	19.23

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 $2.56 per hour computed on the basis of all hours worked by service employees employed on the contract.

VACATION: 2 weeks paid vacation after 1 year of service with a contractor or successor; 3 weeks after 5 years, and 4 weeks after 15 years. Length of service includes the whole span of continuous service with the present contractor or successor, wherever employed, and with the predecessor contractors in the performance of similar work at the same Federal facility. (Reg. 29 CFR 4.173)

HOLIDAYS: A minimum of ten paid holidays per year: New Year's Day, Martin Luther King Jr.'s Birthday, Washington's Birthday, Memorial Day, Independence Day, Labor Day, Columbus Day, Veterans' Day, Thanksgiving Day, and Christmas Day. (A contractor may substitute for any of the named holidays another day off with pay in accordance with a plan communicated to the employees involved.) (See 29 CFR 4.174)

THE OCCUPATIONS WHICH HAVE PARENTHESES AFTER THEM RECEIVE THE FOLLOWING BENEFITS (as numbered):

1) Does not apply to employees employed in a bona fide executive, administrative, or professional capacity as defined and delineated in 29 CFR 541. (See CFR 4.156)

2) APPLICABLE TO AIR TRAFFIC CONTROLLERS ONLY - NIGHT DIFFERENTIAL: An employee is entitled to pay for all work performed between the hours of 6:00 P.M. and 6:00 A.M. at the rate of basic pay plus a night pay differential amounting to 10 percent of the rate of basic pay.

3) WEATHER OBSERVERS - NIGHT PAY & SUNDAY PAY: If you work at night as part of a regular tour of duty, you will earn a night differential and receive an additional 10% of basic pay for any hours worked between 6pm and 6am. If you are a full-time employed (40 hours a week) and Sunday is part of your regularly scheduled workweek, you are paid at your rate of basic pay plus a Sunday premium of 25% of your basic rate for each hour of Sunday work which is not overtime (i.e. occasional work on Sunday outside the normal tour of duty is considered overtime work).

HAZARDOUS PAY DIFFERENTIAL

An 8 percent differential is applicable to employees employed in a position that represents a high degree of hazard when working with or in close proximity to ordinance, explosives, and incendiary materials. This includes work such as screening, blending, dying, mixing, and pressing of sensitive ordance, explosives, and pyrotechnic compositions such as lead azide, black powder and photoflash powder. All dry-house activities involving propellants or explosives. Demilitarization, modification, renovation, demolition, and maintenance operations on sensitive

ordnance, explosives and incendiary materials. All operations involving 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 ordance, (or employees possibly adjacent to) explosives and incendiary materials which involves potential injury such as laceration of hands, face, or arms of the employee engaged in the operation, irritation of the skin, minor burns and the like; minimal damage to immediate or adjacent work area or equipment being used. All operations involving, unloading, storage, and hauling of ordance, explosive, and incendiary ordnance material other than small arms ammunition.

These differentials are only applicable to work that has been specifically designated by the agency for ordance, explosives, and incendiary material differential pay.

**** UNIFORM ALLOWANCE ****

If employees are required to wear uniforms in the performance of this contract (either by the terms of the Government contract, by the employer, by the state or local law, etc.), the cost of furnishing such uniforms and maintaining (by laundering or dry cleaning) such uniforms is an expense that may not be borne by an employee where such cost reduces the hourly rate below that required by the wage determination. The Department of Labor will accept payment in accordance with the following standards as compliance:

The contractor or subcontractor is required to furnish all employees with an adequate number of uniforms without cost or to reimburse employees for the actual cost of the uniforms. In addition, where uniform cleaning and maintenance is made the responsibility of the employee, all contractors and subcontractors subject to this wage determination shall (in the absence of a bona fide collective bargaining agreement providing for a different amount, or the furnishing of contrary affirmative proof as to the actual cost), reimburse all employees for such cleaning and maintenance at a rate of $3.35 per week (or $.67 cents per day). However, in those instances where the uniforms furnished are made of "wash and wear" materials, may be routinely washed and dried with other personal garments, and do not require any special treatment such as dry cleaning, daily washing, or commercial laundering in order to meet the cleanliness or appearance standards set by the terms of the Government contract, by the contractor, by law, or by the nature of the work, there is no requirement that employees be reimbursed for uniform maintenance costs.

**** NOTES APPLYING TO THIS WAGE DETERMINATION ****

Source of Occupational Title and Descriptions:

The duties of employees under job titles listed are those described in the "Service Contract Act Directory of Occupations," Fourth Edition, January 1993, as amended by the Third Supplement, dated March 1997, unless otherwise indicated. This publication may be obtained from the Superintendent of Documents, at 202-783-3238, or by writing to the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Copies of specific job descriptions may also be obtained from the appropriate contracting officer.

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.

REGISTER OF WAGE DETERMINATIONS UNDER THE SERVICE CONTRACT ACT By direction of the Secretary of Labor	U.S. DEPARTMENT OF LABOR EMPLOYMENT STANDARDS ADMINISTRATION WAGE AND HOUR DIVISION WASHINGTON D.C. 20210
William W.Gross Director — Division of Wage Determinations	Wage Determination No.: 1994-2062 Revision No.: 15 Date Of Last Revision: 06/07/2002

State: **California**

Area: **California** Counties of **Santa Clara**, **Santa** Cruz

Fringe Benefits Required Follow the Occupational Listing

OCCUPATION TITLE	MINIMUM WAGE RATE
Administrative Support and Clerical Occupations	
Accounting Clerk I	11.33
Accounting Clerk II	12.39
Accounting Clerk III	15.07
Accounting Clerk IV	17.04
Court Reporter	16.68
Dispatcher, Motor Vehicle	16.67
Document Preparation Clerk	13.62
Duplicating Machine Operator	13.20
Film/Tape Librarian	12.73
General Clerk I	11.00
General Clerk II	12.35
General Clerk III	14.25
General Clerk IV	16.57
Housing Referral Assistant	19.05
Key Entry Operator I	11.72
Key Entry Operator II	14.15
Messenger (Courier)	11.22
Order Clerk I	12.67
Order Clerk II	13.84
Personnel Assistant (Employment) I	11.46
Personnel Assistant (Employment) II	12.86
Personnel Assistant (Employment) III	14.84
Personnel Assistant (Employment) IV	17.26
Production Control Clerk	18.80
Rental Clerk	13.30
Scheduler, Maintenance	13.30
Secretary I	13.30
Secretary II	16.68
Secretary III	19.05
Secretary IV	21.58
Secretary V	25.59
Service Order Dispatcher	13.30
Stenographer I	11.84
Stenographer II	13.30
Supply Technician	21.68
Survey Worker (Interviewer)	13.18
Switchboard Operator-Receptionist	12.09
Test Examiner	16.68
Test Proctor	16.68
Travel Clerk I	11.75
Travel Clerk II	12.79

Travel Clerk III	13.80
Word Processor I	13.22
Word Processor II	14.85
Word Processor III	17.03

Automatic Data Processing Occupations

Computer Data Librarian	13.98
Computer Operator I	13.16
Computer Operator II	14.77
Computer Operator III	17.46
Computer Operator IV	19.65
Computer Operator V	21.80
Computer Programmer I (1)	17.01
Computer Programmer II (1)	21.05
Computer Programmer III (1)	25.76
Computer Programmer IV (1)	27.62
Computer Systems Analyst I (1)	24.20
Computer Systems Analyst II (1)	27.62
Computer Systems Analyst III (1)	27.62
Peripheral Equipment Operator	13.16

Automotive Service Occupations

Automotive Body Repairer, Fiberglass	18.44
Automotive Glass Installer	16.88
Automotive Worker	19.41
Electrician, Automotive	20.32
Mobile Equipment Servicer	17.66
Motor Equipment Metal Mechanic	21.21
Motor Equipment Metal Worker	19.41
Motor Vehicle Mechanic	21.21
Motor Vehicle Mechanic Helper	16.73
Motor Vehicle Upholstery Worker	18.55
Motor Vehicle Wrecker	19.41
Painter, Automotive	20.32
Radiator Repair Specialist	19.41
Tire Repairer	14.84
Transmission Repair Specialist	21.21

Food Preparation and Service Occupations

Baker	11.95
Cook I	13.37
Cook II	13.40
Dishwasher	8.93
Food Service Worker	10.27
Meat Cutter	14.74
Waiter/Waitress	9.68

Furniture Maintenance and Repair Occupations

Electrostatic Spray Painter	18.37
Furniture Handler	13.25
Furniture Refinisher	18.37
Furniture Refinisher Helper	15.13
Furniture Repairer, Minor	16.77
Upholsterer	18.37

General Services and Support Occupations

Cleaner, Vehicles	8.33
Elevator Operator	10.27
Gardener	13.41
House Keeping Aid I	8.57
House Keeping Aid II	9.34
Janitor	10.27
Laborer, Grounds Maintenance	11.13
Maid or Houseman	9.43
Pest Controller	14.09
Refuse Collector	10.27
Tractor Operator	12.72
Window Cleaner	11.13

Health Occupations

Dental Assistant	14.91
Emergency Medical Technician (EMT)/Paramedic/Ambulance Driver	12.96
Licensed Practical Nurse I	11.87
Licensed Practical Nurse II	13.32
Licensed Practical Nurse III	14.91
Medical Assistant	13.32
Medical Laboratory Technician	13.32
Medical Record Clerk	12.11
Medical Record Technician	16.29
Nursing Assistant I	9.27
Nursing Assistant II	10.42
Nursing Assistant III	11.38
Nursing Assistant IV	12.77
Pharmacy Technician	14.96
Phlebotomist	13.32
Registered Nurse I	18.46
Registered Nurse II	22.57
Registered Nurse II, Specialist	22.57
Registered Nurse III	27.31
Registered Nurse III, Anesthetist	27.31
Registered Nurse IV	32.74

Information and Arts Occupations

Audiovisual Librarian	17.99
Exhibits Specialist I	18.79
Exhibits Specialist II	20.43
Exhibits Specialist III	24.97
Illustrator I	21.68
Illustrator II	23.58
Illustrator III	28.84
Librarian	25.59
Library Technician	15.71
Photographer I	14.65
Photographer II	17.54
Photographer III	19.08
Photographer IV	23.33
Photographer V	28.23

Laundry, Dry Cleaning, Pressing and Related Occupations

Assembler	8.06
Counter Attendant	8.06

Dry Cleaner	10.78
Finisher, Flatwork, Machine	8.06
Presser, Hand	8.06
Presser, Machine, Drycleaning	8.06
Presser, Machine, Shirts	8.06
Presser, Machine, Wearing Apparel, Laundry	8.06
Sewing Machine Operator	11.75
Tailor	12.72
Washer, Machine	9.05

Machine Tool Operation and Repair Occupations

Machine-Tool Operator (Toolroom)	20.64
Tool and Die Maker	24.25

Material Handling and Packing Occupations

Forklift Operator	13.93
Fuel Distribution System Operator	15.98
Material Coordinator	16.73
Material Expediter	16.73
Material Handling Laborer	12.69
Order Filler	13.23
Production Line Worker (Food Processing)	13.51
Shipping Packer	13.09
Shipping/Receiving Clerk	13.09
Stock Clerk (Shelf Stocker; Store Worker II)	13.09
Store Worker I	11.33
Tools and Parts Attendant	14.12
Warehouse Specialist	15.32

Mechanics and Maintenance and Repair Occupations

Aircraft Mechanic	22.58
Aircraft Mechanic Helper	17.11
Aircraft Quality Control Inspector	23.24
Aircraft Servicer	18.96
Aircraft Worker	19.84
Appliance Mechanic	20.21
Bicycle Repairer	15.44
Cable Splicer	21.10
Carpenter, Maintenance	21.13
Carpet Layer	19.31
Electrician, Maintenance	24.26
Electronics Technician, Maintenance I	14.60
Electronics Technician, Maintenance II	20.55
Electronics Technician, Maintenance III	25.27
Fabric Worker	18.45
Fire Alarm System Mechanic	21.10
Fire Extinguisher Repairer	17.56
Fuel Distribution System Mechanic	20.66
General Maintenance Worker	13.72
Heating, Refrigeration and Air Conditioning Mechanic	22.64
Heavy Equipment Mechanic	20.77
Heavy Equipment Operator	20.32
Instrument Mechanic	21.10
Laborer	10.26
Locksmith	20.21
Machinery Maintenance Mechanic	19.70
Machinist, Maintenance	20.67

Maintenance Trades Helper	15.13
Millwright	20.18
Office Appliance Repairer	20.21
Painter, Aircraft	18.37
Painter, Maintenance	18.37
Pipefitter, Maintenance	24.26
Plumber, Maintenance	23.23
Pneudraulic Systems Mechanic	21.10
Rigger	19.18
Scale Mechanic	19.31
Sheet-Metal Worker, Maintenance	23.29
Small Engine Mechanic	17.55
Telecommunication Mechanic I	20.76
Telecommunication Mechanic II	23.18
Telephone Lineman	22.11
Welder, Combination, Maintenance	19.18
Well Driller	21.10
Woodcraft Worker	21.10
Woodworker	15.98

Miscellaneous Occupations

Animal Caretaker	10.13
Carnival Equipment Operator	11.46
Carnival Equipment Repairer	12.09
Carnival Worker	9.26
Cashier	6.74
Desk Clerk	7.59
Embalmer	20.47
Lifeguard	6.75
Mortician	20.47
Park Attendant (Aide)	8.50
Photofinishing Worker (Photo Lab Tech., Darkroom Tech)	6.75
Recreation Specialist	10.51
Recycling Worker	12.71
Sales Clerk	6.75
School Crossing Guard (Crosswalk Attendant)	8.49
Sport Official	6.75
Survey Party Chief (Chief of Party)	13.41
Surveying Aide	6.74
Surveying Technician (Instr. Person/Surveyor Asst./Instr.)	8.50
Swimming Pool Operator	12.68
Vending Machine Attendant	10.93
Vending Machine Repairer	12.68
Vending Machine Repairer Helper	10.93

Personal Needs Occupations

Child Care Attendant	7.59
Child Care Center Clerk	9.46
Chore Aid	8.96
Homemaker	9.90

Plant and System Operation Occupations

Boiler Tender	23.99
Sewage Plant Operator	23.09
Stationary Engineer	23.99
Ventilation Equipment Tender	16.43
Water Treatment Plant Operator	21.22

Protective Service Occupations

Alarm Monitor	11.07
Corrections Officer	25.44
Court Security Officer	27.41
Detention Officer	25.44
Firefighter	24.81
Guard I	9.85
Guard II	11.14
Police Officer	31.75

Stevedoring/Longshoremen Occupations

Blocker and Bracer	15.65
Hatch Tender	15.65
Line Handler	15.65
Stevedore I	13.60
Stevedore II	14.88

Technical Occupations

Air Traffic Control Specialist, Center (2)	30.92
Air Traffic Control Specialist, Station (2)	21.33
Air Traffic Control Specialist, Terminal (2)	23.48
Archeological Technician I	12.15
Archeological Technician II	13.59
Archeological Technician III	16.84
Cartographic Technician	18.52
Civil Engineering Technician	18.52
Computer Based Training (CBT) Specialist/ Instructor	23.56
Drafter I	15.00
Drafter II	16.84
Drafter III	20.17
Drafter IV	21.94
Engineering Technician I	13.68
Engineering Technician II	17.13
Engineering Technician III	19.90
Engineering Technician IV	23.43
Engineering Technician V	27.69
Engineering Technician VI	32.47
Environmental Technician	18.95
Flight Simulator/Instructor (Pilot)	26.05
Graphic Artist	24.20
Instructor	21.04
Laboratory Technician	18.11
Mathematical Technician	21.94
Paralegal/Legal Assistant I	17.49
Paralegal/Legal Assistant II	19.83
Paralegal/Legal Assistant III	24.17
Paralegal/Legal Assistant IV	29.32
Photooptics Technician	18.63
Technical Writer	28.82
Unexploded (UXO) Safety Escort	19.65
Unexploded (UXO) Sweep Personnel	19.65
Unexploded Ordnance (UXO) Technician I	19.65
Unexploded Ordnance (UXO) Technician II	23.78
Unexploded Ordnance (UXO) Technician III	28.50
Weather Observer, Combined Upper Air and Surface Programs (3)	19.35
Weather Observer, Senior (3)	21.48
Weather Observer, Upper Air (3)	19.35

Transportation/ Mobile Equipment Operation Occupations

Bus Driver	10.74
Parking and Lot Attendant	7.59
Shuttle Bus Driver	10.22
Taxi Driver	8.79
Truckdriver, Heavy Truck	18.33
Truckdriver, Light Truck	10.08
Truckdriver, Medium Truck	10.59
Truckdriver, Tractor-Trailer	18.33

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 $2.56 per hour computed on the basis of all hours worked by service employees employed on the contract.

VACATION: 2 weeks paid vacation after 1 year of service with a contractor or successor; 3 weeks after 5 years, and 4 weeks after 15 years. Length of service includes the whole span of continuous service with the present contractor or successor, wherever employed, and with the predecessor contractors in the performance of similar work at the same Federal facility. (Reg. 29 CFR 4.173)

HOLIDAYS: A minimum of ten paid holidays per year: New Year's Day, Martin Luther King Jr.'s Birthday, Washington's Birthday, Memorial Day, Independence Day, Labor Day, Columbus Day, Veterans' Day, Thanksgiving Day, and Christmas Day. (A contractor may substitute for any of the named holidays another day off with pay in accordance with a plan communicated to the employees involved.) (See 29 CFR 4.174)

THE OCCUPATIONS WHICH HAVE PARENTHESES AFTER THEM RECEIVE THE FOLLOWING BENEFITS (as numbered):

1) Does not apply to employees employed in a bona fide executive, administrative, or professional capacity as defined and delineated in 29 CFR 541. (See CFR 4.156)

2) APPLICABLE TO AIR TRAFFIC CONTROLLERS ONLY - NIGHT DIFFERENTIAL: An employee is entitled to pay for all work performed between the hours of 6:00 P.M. and 6:00 A.M. at the rate of basic pay plus a night pay differential amounting to 10 percent of the rate of basic pay.

3) WEATHER OBSERVERS - NIGHT PAY & SUNDAY PAY: If you work at night as part of a regular tour of duty, you will earn a night differential and receive an additional 10% of basic pay for any hours worked between 6pm and 6am. If you are a full-time employed (40 hours a week) and Sunday is part of your regularly scheduled workweek, you are paid at your rate of basic pay plus a Sunday premium of 25% of your basic rate for each hour of Sunday work which is not overtime (i.e. occasional work on Sunday outside the normal tour of duty is considered overtime work).

HAZARDOUS PAY DIFFERENTIAL

An 8 percent differential is applicable to employees employed in a position that represents a high degree of hazard when working with or in close proximity to ordinance, explosives, and incendiary materials. This includes work such as screening, blending, dying, mixing, and pressing of sensitive ordance, explosives, and pyrotechnic compositions such as lead azide, black powder and photoflash powder. All dry-house activities involving propellants or explosives. Demilitarization,

modification, renovation, demolition, and maintenance operations on sensitive ordnance, explosives and incendiary materials. All operations involving 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 ordance, (or employees possibly adjacent to) explosives and incendiary materials which involves potential injury such as laceration of hands, face, or arms of the employee engaged in the operation, irritation of the skin, minor burns and the like; minimal damage to immediate or adjacent work area or equipment being used. All operations involving, unloading, storage, and hauling of ordance, explosive, and incendiary ordnance material other than small arms ammunition.

These differentials are only applicable to work that has been specifically designated by the agency for ordance, explosives, and incendiary material differential pay.

**** UNIFORM ALLOWANCE ****

If employees are required to wear uniforms in the performance of this contract (either by the terms of the Government contract, by the employer, by the state or local law, etc.), the cost of furnishing such uniforms and maintaining (by laundering or dry cleaning) such uniforms is an expense that may not be borne by an employee where such cost reduces the hourly rate below that required by the wage determination. The Department of Labor will accept payment in accordance with the following standards as compliance:

The contractor or subcontractor is required to furnish all employees with an adequate number of uniforms without cost or to reimburse employees for the actual cost of the uniforms. In addition, where uniform cleaning and maintenance is made the responsibility of the employee, all contractors and subcontractors subject to this wage determination shall (in the absence of a bona fide collective bargaining agreement providing for a different amount, or the furnishing of contrary affirmative proof as to the actual cost), reimburse all employees for such cleaning and maintenance at a rate of $3.35 per week (or $.67 cents per day). However, in those instances where the uniforms furnished are made of "wash and wear" materials, may be routinely washed and dried with other personal garments, and do not require any special treatment such as dry cleaning, daily washing, or commercial laundering in order to meet the cleanliness or appearance standards set by the terms of the Government contract, by the contractor, by law, or by the nature of the work, there is no requirement that employees be reimbursed for uniform maintenance costs.

**** NOTES APPLYING TO THIS WAGE DETERMINATION ****

Source of Occupational Title and Descriptions:

The duties of employees under job titles listed are those described in the "Service Contract Act Directory of Occupations," Fourth Edition, January 1993, as amended by the Third Supplement, dated March 1997, unless otherwise indicated. This publication may be obtained from the Superintendent of Documents, at 202-783-3238, or by writing to the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Copies of specific job descriptions may also be obtained from the appropriate contracting officer.

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.

REGISTER OF WAGE DETERMINATIONS UNDER THE SERVICE CONTRACT ACT By direction of the Secretary of Labor	U.S. DEPARTMENT OF LABOR EMPLOYMENT STANDARDS ADMINISTRATION WAGE AND HOUR DIVISION WASHINGTON D.C. 20210
William W.Gross Director Division of Wage Determinations	Wage Determination No.: 1994-2096 Revision No.: 14 Date Of Last Revision: 08/13/2002

States: Delaware, Maryland, **Virginia**

Area: Delaware County of Sussex
Maryland Counties of Somerset, Wicomico, Worcester
Virginia Counties of **Accomack**, Northampton

Fringe Benefits Required Follow the Occupational Listing

OCCUPATION TITLE	MINIMUM WAGE RATE
Administrative Support and Clerical Occupations	
Accounting Clerk I	8.43
Accounting Clerk II	9.26
Accounting Clerk III	11.02
Accounting Clerk IV	13.79
Court Reporter	9.88
Dispatcher, Motor Vehicle	10.40
Document Preparation Clerk	8.70
Duplicating Machine Operator	8.70
Film/Tape Librarian	9.00
General Clerk I	6.62
General Clerk II	6.98
General Clerk III	8.76
General Clerk IV	9.83
Housing Referral Assistant	10.69
Key Entry Operator I	9.25
Key Entry Operator II	10.95
Messenger (Courier)	6.74
Order Clerk I	8.44
Order Clerk II	10.73
Personnel Assistant (Employment) I	7.68
Personnel Assistant (Employment) II	9.00
Personnel Assistant (Employment) III	9.88
Personnel Assistant (Employment) IV	10.74
Production Control Clerk	12.34
Rental Clerk	9.34
Scheduler, Maintenance	8.96
Secretary I	8.96
Secretary II	9.84
Secretary III	10.69
Secretary IV	10.88
Secretary V	11.96
Service Order Dispatcher	10.35
Stenographer I	10.93
Stenographer II	12.01
Supply Technician	10.88
Survey Worker (Interviewer)	9.88
Switchboard Operator-Receptionist	8.27
Test Examiner	9.84
Test Proctor	9.84

Travel Clerk I	9.94
Travel Clerk II	10.73
Travel Clerk III	11.48
Word Processor I	8.98
Word Processor II	10.28
Word Processor III	11.28

Automatic Data Processing Occupations

Computer Data Librarian	8.77
Computer Operator I	7.53
Computer Operator II	9.00
Computer Operator III	10.89
Computer Operator IV	12.19
Computer Operator V	13.41
Computer Programmer I (1)	11.15
Computer Programmer II (1)	13.77
Computer Programmer III (1)	16.44
Computer Programmer IV (1)	20.08
Computer Systems Analyst I (1)	14.17
Computer Systems Analyst II (1)	16.71
Computer Systems Analyst III (1)	19.38
Peripheral Equipment Operator	8.61

Automotive Service Occupations

Automotive Body Repairer, Fiberglass	13.02
Automotive Glass Installer	11.17
Automotive Worker	12.28
Electrician, Automotive	12.80
Mobile Equipment Servicer	10.20
Motor Equipment Metal Mechanic	13.36
Motor Equipment Metal Worker	12.28
Motor Vehicle Mechanic	13.36
Motor Vehicle Mechanic Helper	9.71
Motor Vehicle Upholstery Worker	11.72
Motor Vehicle Wrecker	12.28
Painter, Automotive	12.87
Radiator Repair Specialist	12.28
Tire Repairer	9.82
Transmission Repair Specialist	13.36

Food Preparation and Service Occupations

Baker	8.50
Cook I	8.66
Cook II	9.78
Dishwasher	6.64
Food Service Worker	7.44
Meat Cutter	9.35
Waiter/Waitress	6.67

Furniture Maintenance and Repair Occupations

Electrostatic Spray Painter	14.42
Furniture Handler	10.11
Furniture Refinisher	13.11
Furniture Refinisher Helper	10.88
Furniture Repairer, Minor	12.01
Upholsterer	13.11

General Services and Support Occupations

Cleaner, Vehicles	8.18
Elevator Operator	8.18
Gardener	9.12
House Keeping Aid I	6.71
House Keeping Aid II	7.69
Janitor	8.18
Laborer, Grounds Maintenance	8.33
Maid or Houseman	7.10
Pest Controller	8.45
Refuse Collector	8.18
Tractor Operator	9.30
Window Cleaner	8.33

Health Occupations

Dental Assistant	10.93
Emergency Medical Technician (EMT)/Paramedic/Ambulance Driver	10.93
Licensed Practical Nurse I	11.02
Licensed Practical Nurse II	12.36
Licensed Practical Nurse III	13.83
Medical Assistant	10.43
Medical Laboratory Technician	10.75
Medical Record Clerk	10.75
Medical Record Technician	14.89
Nursing Assistant I	7.83
Nursing Assistant II	8.80
Nursing Assistant III	9.60
Nursing Assistant IV	10.77
Pharmacy Technician	12.19
Phlebotomist	12.36
Registered Nurse I	17.13
Registered Nurse II	20.97
Registered Nurse II, Specialist	20.97
Registered Nurse III	25.37
Registered Nurse III, Anesthetist	25.37
Registered Nurse IV	30.38

Information and Arts Occupations

Audiovisual Librarian	12.60
Exhibits Specialist I	13.81
Exhibits Specialist II	15.73
Exhibits Specialist III	19.22
Illustrator I	12.89
Illustrator II	14.69
Illustrator III	18.06
Librarian	12.01
Library Technician	9.20
Photographer I	11.00
Photographer II	12.73
Photographer III	14.50
Photographer IV	17.83
Photographer V	20.92

Laundry, Dry Cleaning, Pressing and Related Occupations

Assembler	7.02
Counter Attendant	7.02

Dry Cleaner	8.56
Finisher, Flatwork, Machine	7.02
Presser, Hand	7.02
Presser, Machine, Drycleaning	7.02
Presser, Machine, Shirts	7.02
Presser, Machine, Wearing Apparel, Laundry	7.02
Sewing Machine Operator	9.14
Tailor	9.72
Washer, Machine	7.59

Machine Tool Operation and Repair Occupations

Machine-Tool Operator (Toolroom)	14.42
Tool and Die Maker	16.89

Material Handling and Packing Occupations

Forklift Operator	10.97
Fuel Distribution System Operator	12.58
Material Coordinator	12.84
Material Expediter	12.84
Material Handling Laborer	8.88
Order Filler	9.52
Production Line Worker (Food Processing)	10.12
Shipping Packer	10.08
Shipping/Receiving Clerk	10.55
Stock Clerk (Shelf Stocker; Store Worker II)	12.72
Store Worker I	9.91
Tools and Parts Attendant	13.76
Warehouse Specialist	11.64

Mechanics and Maintenance and Repair Occupations

Aircraft Mechanic	15.05
Aircraft Mechanic Helper	11.97
Aircraft Quality Control Inspector	20.03
Aircraft Servicer	13.21
Aircraft Worker	13.84
Appliance Mechanic	13.11
Bicycle Repairer	11.05
Cable Splicer	17.30
Carpenter, Maintenance	13.24
Carpet Layer	13.84
Electrician, Maintenance	15.50
Electronics Technician, Maintenance I	13.84
Electronics Technician, Maintenance II	18.79
Electronics Technician, Maintenance III	21.16
Fabric Worker	12.66
Fire Alarm System Mechanic	15.05
Fire Extinguisher Repairer	12.58
Fuel Distribution System Mechanic	15.05
General Maintenance Worker	11.79
Heating, Refrigeration and Air Conditioning Mechanic	15.05
Heavy Equipment Mechanic	15.25
Heavy Equipment Operator	15.73
Instrument Mechanic	17.30
Laborer	9.57
Locksmith	14.42
Machinery Maintenance Mechanic	15.73
Machinist, Maintenance	14.31

Maintenance Trades Helper	10.88
Millwright	14.88
Office Appliance Repairer	14.42
Painter, Aircraft	13.11
Painter, Maintenance	13.11
Pipefitter, Maintenance	15.73
Plumber, Maintenance	16.59
Pneudraulic Systems Mechanic	15.05
Rigger	14.97
Scale Mechanic	13.84
Sheet-Metal Worker, Maintenance	15.05
Small Engine Mechanic	12.72
Telecommunication Mechanic I	15.05
Telecommunication Mechanic II	15.66
Telephone Lineman	15.05
Welder, Combination, Maintenance	13.68
Well Driller	15.05
Woodcraft Worker	15.05
Woodworker	12.82

Miscellaneous Occupations

Animal Caretaker	7.12
Carnival Equipment Operator	8.09
Carnival Equipment Repairer	8.80
Carnival Worker	7.12
Cashier	7.28
Desk Clerk	8.45
Embalmer	17.93
Lifeguard	9.42
Mortician	18.23
Park Attendant (Aide)	11.84
Photofinishing Worker (Photo Lab Tech., Darkroom Tech)	8.27
Recreation Specialist	11.71
Recycling Worker	9.30
Sales Clerk	8.95
School Crossing Guard (Crosswalk Attendant)	7.12
Sport Official	8.27
Survey Party Chief (Chief of Party)	13.79
Surveying Aide	9.04
Surveying Technician (Instr. Person/Surveyor Asst./Instr.)	12.38
Swimming Pool Operator	7.93
Vending Machine Attendant	7.93
Vending Machine Repairer	9.35
Vending Machine Repairer Helper	8.09

Personal Needs Occupations

Child Care Attendant	8.45
Child Care Center Clerk	10.54
Chore Aid	6.17
Homemaker	11.71

Plant and System Operation Occupations

Boiler Tender	13.68
Sewage Plant Operator	13.11
Stationary Engineer	13.68
Ventilation Equipment Tender	11.97
Water Treatment Plant Operator	14.42

Protective Service Occupations

Alarm Monitor	9.88
Corrections Officer	12.07
Court Security Officer	12.33
Detention Officer	12.07
Firefighter	11.86
Guard I	7.19
Guard II	9.04
Police Officer	16.06

Stevedoring/Longshoremen Occupations

Blocker and Bracer	11.69
Hatch Tender	11.69
Line Handler	11.69
Stevedore I	10.15
Stevedore II	12.19

Technical Occupations

Air Traffic Control Specialist, Center (2)	28.21
Air Traffic Control Specialist, Station (2)	19.46
Air Traffic Control Specialist, Terminal (2)	21.43
Archeological Technician I	11.34
Archeological Technician II	12.69
Archeological Technician III	15.73
Cartographic Technician	14.30
Civil Engineering Technician	14.17
Computer Based Training (CBT) Specialist/ Instructor	14.30
Drafter I	9.86
Drafter II	11.94
Drafter III	13.81
Drafter IV	15.73
Engineering Technician I	9.02
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Weather Observer, Senior (3)	12.41
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Transportation/ Mobile Equipment Operation Occupations

Bus Driver	9.55
Parking and Lot Attendant	7.71
Shuttle Bus Driver	10.59
Taxi Driver	8.03
Truckdriver, Heavy Truck	11.50
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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.

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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.

REGISTER OF WAGE DETERMINATIONS UNDER THE SERVICE CONTRACT ACT By direction of the Secretary of Labor	U.S. DEPARTMENT OF LABOR EMPLOYMENT STANDARDS ADMINISTRATION WAGE AND HOUR DIVISION WASHINGTON D.C. 20210
William W.Gross Director — Division of Wage Determinations	Wage Determination No.: 1994-2104 Revision No.: 20 Date Of Last Revision: 10/04/2002

States: District of Columbia, Maryland, Virginia

Area: District of Columbia Statewide
Maryland Counties of Calvert, Charles, Frederick, Montgomery, Prince George's, St Mary's
Virginia Counties of Alexandria, Arlington, Fairfax, Falls Church, Fauquier, King George, Loudoun, Prince William, Stafford

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Fringe Benefits Required Follow the Occupational Listing

OCCUPATION TITLE	MINIMUM WAGE RATE
Administrative Support and Clerical Occupations	
Accounting Clerk I	10.16
Accounting Clerk II	11.88
Accounting Clerk III	14.04
Accounting Clerk IV	16.37
Court Reporter	14.94
Dispatcher, Motor Vehicle	14.63
Document Preparation Clerk	11.29
Duplicating Machine Operator	11.29
Film/Tape Librarian	14.65
General Clerk I	11.68
General Clerk II	13.72
General Clerk III	15.32
General Clerk IV	18.74
Housing Referral Assistant	17.82
Key Entry Operator I	10.40
Key Entry Operator II	11.62
Messenger (Courier)	9.30
Order Clerk I	14.74
Order Clerk II	16.29
Personnel Assistant (Employment) I	13.05
Personnel Assistant (Employment) II	14.24
Personnel Assistant (Employment) III	16.42
Personnel Assistant (Employment) IV	19.60
Production Control Clerk	17.28
Rental Clerk	15.42
Scheduler, Maintenance	14.06
Secretary I	14.71
Secretary II	15.35
Secretary III	18.49
Secretary IV	19.57
Secretary V	22.79
Service Order Dispatcher	14.04
Stenographer I	14.68
Stenographer II	16.47
Supply Technician	19.57
Survey Worker (Interviewer)	14.94
Switchboard Operator-Receptionist	10.96
Test Examiner	15.35

Test Proctor	15.35
Travel Clerk I	11.63
Travel Clerk II	12.49
Travel Clerk III	13.41
Word Processor I	11.80
Word Processor II	14.22
Word Processor III	16.65
Automatic Data Processing Occupations	
Computer Data Librarian	11.69
Computer Operator I	13.30
Computer Operator II	15.67
Computer Operator III	18.60
Computer Operator IV	18.94
Computer Operator V	22.94
Computer Programmer I (1)	19.64
Computer Programmer II (1)	23.05
Computer Programmer III (1)	26.99
Computer Programmer IV (1)	27.62
Computer Systems Analyst I (1)	26.99
Computer Systems Analyst II (1)	27.62
Computer Systems Analyst III (1)	27.62
Peripheral Equipment Operator	14.06
Automotive Service Occupations	
Automotive Body Repairer, Fiberglass	21.38
Automotive Glass Installer	17.03
Automotive Worker	17.03
Electrician, Automotive	18.05
Mobile Equipment Servicer	14.94
Motor Equipment Metal Mechanic	19.03
Motor Equipment Metal Worker	17.03
Motor Vehicle Mechanic	19.11
Motor Vehicle Mechanic Helper	16.01
Motor Vehicle Upholstery Worker	17.03
Motor Vehicle Wrecker	17.03
Painter, Automotive	18.05
Radiator Repair Specialist	17.03
Tire Repairer	14.43
Transmission Repair Specialist	19.03
Food Preparation and Service Occupations	
Baker	11.87
Cook I	10.41
Cook II	11.87
Dishwasher	8.76
Food Service Worker	9.01
Meat Cutter	16.07
Waiter/Waitress	8.17
Furniture Maintenance and Repair Occupations	
Electrostatic Spray Painter	18.05
Furniture Handler	12.55
Furniture Refinisher	18.05
Furniture Refinisher Helper	13.85
Furniture Repairer, Minor	16.01
Upholsterer	18.05
General Services and Support Occupations	
Cleaner, Vehicles	9.67
Elevator Operator	9.79
Gardener	12.98
House Keeping Aid I	9.02
House Keeping Aid II	9.28
Janitor	9.64

Laborer, Grounds Maintenance	10.75
Maid or Houseman	9.28
Pest Controller	11.85
Refuse Collector	10.88
Tractor Operator	12.73
Window Cleaner	10.51
Health Occupations	
Dental Assistant	14.36
Emergency Medical Technician (EMT)/Paramedic/Ambulance Driver	11.95
Licensed Practical Nurse I	14.43
Licensed Practical Nurse II	16.20
Licensed Practical Nurse III	18.13
Medical Assistant	11.76
Medical Laboratory Technician	13.93
Medical Record Clerk	13.57
Medical Record Technician	14.21
Nursing Assistant I	8.46
Nursing Assistant II	9.52
Nursing Assistant III	11.94
Nursing Assistant IV	13.40
Pharmacy Technician	11.84
Phlebotomist	11.21
Registered Nurse I	22.54
Registered Nurse II	25.08
Registered Nurse II, Specialist	25.08
Registered Nurse III	32.38
Registered Nurse III, Anesthetist	32.38
Registered Nurse IV	38.81
Information and Arts Occupations	
Audiovisual Librarian	18.95
Exhibits Specialist I	16.79
Exhibits Specialist II	20.99
Exhibits Specialist III	25.84
Illustrator I	17.03
Illustrator II	21.29
Illustrator III	26.20
Librarian	22.33
Library Technician	15.03
Photographer I	13.93
Photographer II	15.64
Photographer III	19.56
Photographer IV	24.08
Photographer V	26.50
Laundry, Dry Cleaning, Pressing and Related Occupations	
Assembler	8.71
Counter Attendant	8.71
Dry Cleaner	9.83
Finisher, Flatwork, Machine	8.71
Presser, Hand	8.71
Presser, Machine, Drycleaning	8.71
Presser, Machine, Shirts	8.71
Presser, Machine, Wearing Apparel, Laundry	8.71
Sewing Machine Operator	10.63
Tailor	12.43
Washer, Machine	9.31
Machine Tool Operation and Repair Occupations	
Machine-Tool Operator (Toolroom)	18.05
Tool and Die Maker	21.95
Material Handling and Packing Occupations	
Forklift Operator	14.58

Fuel Distribution System Operator	19.38
Material Coordinator	16.97
Material Expediter	16.97
Material Handling Laborer	11.50
Order Filler	13.21
Production Line Worker (Food Processing)	12.80
Shipping Packer	12.21
Shipping/Receiving Clerk	13.09
Stock Clerk (Shelf Stocker; Store Worker II)	12.69
Store Worker I	8.89
Tools and Parts Attendant	16.99
Warehouse Specialist	15.01
Mechanics and Maintenance and Repair Occupations	
Aircraft Mechanic	21.95
Aircraft Mechanic Helper	14.51
Aircraft Quality Control Inspector	23.11
Aircraft Servicer	16.78
Aircraft Worker	17.84
Appliance Mechanic	18.05
Bicycle Repairer	14.43
Cable Splicer	20.93
Carpenter, Maintenance	18.05
Carpet Layer	17.61
Electrician, Maintenance	22.59
Electronics Technician, Maintenance I	16.08
Electronics Technician, Maintenance II	20.88
Electronics Technician, Maintenance III	22.73
Fabric Worker	15.76
Fire Alarm System Mechanic	19.03
Fire Extinguisher Repairer	14.94
Fuel Distribution System Mechanic	20.93
General Maintenance Worker	16.46
Heating, Refrigeration and Air Conditioning Mechanic	19.03
Heavy Equipment Mechanic	19.03
Heavy Equipment Operator	19.31
Instrument Mechanic	19.03
Laborer	10.70
Locksmith	18.05
Machinery Maintenance Mechanic	20.51
Machinist, Maintenance	21.52
Maintenance Trades Helper	13.85
Millwright	19.24
Office Appliance Repairer	18.05
Painter, Aircraft	20.76
Painter, Maintenance	18.05
Pipefitter, Maintenance	19.04
Plumber, Maintenance	18.05
Pneudraulic Systems Mechanic	19.03
Rigger	19.03
Scale Mechanic	17.03
Sheet-Metal Worker, Maintenance	19.03
Small Engine Mechanic	20.05
Telecommunication Mechanic I	19.41
Telecommunication Mechanic II	20.45
Telephone Lineman	20.93
Welder, Combination, Maintenance	19.03
Well Driller	19.03
Woodcraft Worker	19.03
Woodworker	15.32

Miscellaneous Occupations	
Animal Caretaker	8.97
Carnival Equipment Operator	11.11
Carnival Equipment Repairer	11.97
Carnival Worker	7.48
Cashier	8.53
Desk Clerk	9.78
Embalmer	19.04
Lifeguard	9.67
Mortician	21.63
Park Attendant (Aide)	12.15
Photofinishing Worker (Photo Lab Tech., Darkroom Tech)	9.03
Recreation Specialist	15.94
Recycling Worker	14.06
Sales Clerk	10.04
School Crossing Guard (Crosswalk Attendant)	10.34
Sport Official	11.24
Survey Party Chief (Chief of Party)	14.92
Surveying Aide	9.27
Surveying Technician (Instr. Person/Surveyor Asst./Instr.)	14.18
Swimming Pool Operator	13.21
Vending Machine Attendant	10.20
Vending Machine Repairer	13.24
Vending Machine Repairer Helper	10.77
Personal Needs Occupations	
Child Care Attendant	11.37
Child Care Center Clerk	15.86
Chore Aid	8.05
Homemaker	16.45
Plant and System Operation Occupations	
Boiler Tender	20.85
Sewage Plant Operator	19.15
Stationary Engineer	20.85
Ventilation Equipment Tender	13.85
Water Treatment Plant Operator	19.72
Protective Service Occupations	
Alarm Monitor	15.04
Corrections Officer	17.69
Court Security Officer	18.84
Detention Officer	18.29
Firefighter	19.72
Guard I	9.51
Guard II	12.53
Police Officer	20.54
Stevedoring/Longshoremen Occupations	
Blocker and Bracer	16.46
Hatch Tender	15.74
Line Handler	15.74
Stevedore I	15.47
Stevedore II	17.45
Technical Occupations	
Air Traffic Control Specialist, Center (2)	28.96
Air Traffic Control Specialist, Station (2)	19.97
Air Traffic Control Specialist, Terminal (2)	21.99
Archeological Technician I	14.57
Archeological Technician II	16.29
Archeological Technician III	20.20
Cartographic Technician	22.73
Civil Engineering Technician	19.56
Computer Based Training (CBT) Specialist/ Instructor	23.94

Drafter I	12.22
Drafter II	15.30
Drafter III	17.18
Drafter IV	21.49
Engineering Technician I	15.50
Engineering Technician II	17.99
Engineering Technician III	21.63
Engineering Technician IV	24.82
Engineering Technician V	30.35
Engineering Technician VI	36.72
Environmental Technician	19.29
Flight Simulator/Instructor (Pilot)	27.76
Graphic Artist	20.36
Instructor	23.34
Laboratory Technician	15.98
Mathematical Technician	23.39
Paralegal/Legal Assistant I	16.71
Paralegal/Legal Assistant II	21.31
Paralegal/Legal Assistant III	26.07
Paralegal/Legal Assistant IV	31.54
Photooptics Technician	21.06
Technical Writer	23.99
Unexploded (UXO) Safety Escort	18.40
Unexploded (UXO) Sweep Personnel	18.40
Unexploded Ordnance (UXO) Technician I	18.40
Unexploded Ordnance (UXO) Technician II	22.27
Unexploded Ordnance (UXO) Technician III	26.69
Weather Observer, Combined Upper Air and Surface Programs (3)	16.64
Weather Observer, Senior (3)	19.38
Weather Observer, Upper Air (3)	16.64
Transportation/ Mobile Equipment Operation Occupations	
Bus Driver	15.09
Parking and Lot Attendant	8.62
Shuttle Bus Driver	12.94
Taxi Driver	10.60
Truckdriver, Heavy Truck	17.52
Truckdriver, Light Truck	11.78
Truckdriver, Medium Truck	14.97
Truckdriver, Tractor-Trailer	17.52

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 $2.56 per hour computed on the basis of all hours worked by service employees employed on the contract.

VACATION: 2 weeks paid vacation after 1 year of service with a contractor or successor; 3 weeks after 5 years, and 4 weeks after 15 years. Length of service includes the whole span of continuous service with the present contractor or successor, wherever employed, and with the predecessor contractors in the performance of similar work at the same Federal facility. (Reg. 29 CFR 4.173)

HOLIDAYS: A minimum of ten paid holidays per year: New Year's Day, Martin Luther King Jr.'s Birthday, Washington's Birthday, Memorial Day, Independence Day, Labor Day, Columbus Day, Veterans' Day, Thanksgiving Day, and Christmas Day. (A contractor may substitute for any of the named holidays another day off with pay in accordance with a plan communicated to the employees involved.) (See 29 CFR 4.174)

THE OCCUPATIONS WHICH HAVE PARENTHESES AFTER THEM RECEIVE THE FOLLOWING BENEFITS (as numbered):
1) Does not apply to employees employed in a bona fide executive, administrative, or professional capacity as defined and delineated in 29 CFR 541. (See CFR 4.156)
2) APPLICABLE TO AIR TRAFFIC CONTROLLERS ONLY - NIGHT DIFFERENTIAL: An employee is entitled to pay for all work performed between the hours of 6:00 P.M. and 6:00 A.M. at the rate of basic pay plus a night pay differential amounting to 10 percent of the rate of basic pay.
3) WEATHER OBSERVERS - NIGHT PAY & SUNDAY PAY: If you work at night as part of a regular tour of duty, you will earn a night differential and receive an additional 10% of basic pay for any hours worked between 6pm and 6am. If you are a full-time employed (40 hours a week) and Sunday is part of your regularly scheduled workweek, you are paid at your rate of basic pay plus a Sunday premium of 25% of your basic rate for each hour of Sunday work which is not overtime (i.e. occasional work on Sunday outside the normal tour of duty is considered overtime work).

HAZARDOUS PAY DIFFERENTIAL

An 8 percent differential is applicable to employees employed in a position that represents a high degree of hazard when working with or in close proximity to ordinance, explosives, and incendiary materials. This includes work such as screening, blending, dying, mixing, and pressing of sensitive ordance, explosives, and pyrotechnic compositions such as lead azide, black powder and photoflash powder. All dry-house activities involving propellants or explosives. Demilitarization, modification, renovation, demolition, and maintenance operations on sensitive ordnance, explosives and incendiary materials. All operations involving 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 ordance, (or employees possibly adjacent to) explosives and incendiary materials which involves potential injury such as laceration of hands, face, or arms of the employee engaged in the operation, irritation of the skin, minor burns and the like; minimal damage to immediate or adjacent work area or equipment being used. All operations involving, unloading, storage, and hauling of ordance, explosive, and incendiary ordnance material other than small arms ammunition.

These differentials are only applicable to work that has been specifically designated by the agency for ordance, explosives, and incendiary material differential pay.

**** UNIFORM ALLOWANCE ****

If employees are required to wear uniforms in the performance of this contract (either by the terms of the Government contract, by the employer, by the state or local law, etc.), the cost of furnishing such uniforms and maintaining (by laundering or dry cleaning) such uniforms is an expense that may not be borne by an employee where such cost reduces the hourly rate below that required by the wage determination. The Department of Labor will accept payment in accordance with the following standards as compliance:

The contractor or subcontractor is required to furnish all employees with an adequate number of uniforms without cost or to reimburse employees for the actual cost of the uniforms. In addition, where uniform cleaning and maintenance is made the responsibility of the employee, all contractors and subcontractors subject to this wage determination shall (in the absence of a bona fide collective bargaining agreement providing for a different amount, or the furnishing of contrary affirmative proof as to the actual cost), reimburse all employees for such cleaning and

maintenance at a rate of $3.35 per week (or $.67 cents per day). However, in those instances where the uniforms furnished are made of "wash and wear" materials, may be routinely washed and dried with other personal garments, and do not require any special treatment such as dry cleaning, daily washing, or commercial laundering in order to meet the cleanliness or appearance standards set by the terms of the Government contract, by the contractor, by law, or by the nature of the work, there is no requirement that employees be reimbursed for uniform maintenance costs.

**** NOTES APPLYING TO THIS WAGE DETERMINATION ****

Source of Occupational Title and Descriptions:

The duties of employees under job titles listed are those described in the "Service Contract Act Directory of Occupations," Fourth Edition, January 1993, as amended by the Third Supplement, dated March 1997, unless otherwise indicated. This publication may be obtained from the Superintendent of Documents, at 202-783-3238, or by writing to the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Copies of specific job descriptions may also be obtained from the appropriate contracting officer.

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.

REGISTER OF WAGE DETERMINATIONS UNDER THE SERVICE CONTRACT ACT By direction of the Secretary of Labor	U.S. DEPARTMENT OF LABOR EMPLOYMENT STANDARDS ADMINISTRATION WAGE AND HOUR DIVISION WASHINGTON D.C. 20210
William W.Gross Director — Division of Wage Determinations	Wage Determination No.: 1994-2118 Revision No.: 17 Date Of Last Revision: 05/16/2002

State: Florida

Area: Florida Counties of Brevard, Indian River

Fringe Benefits Required Follow the Occupational Listing

OCCUPATION TITLE	MINIMUM WAGE RATE
Administrative Support and Clerical Occupations	
Accounting Clerk I	10.76
Accounting Clerk II	12.36
Accounting Clerk III	14.60
Accounting Clerk IV	18.43
Court Reporter	12.94
Dispatcher, Motor Vehicle	12.43
Document Preparation Clerk	9.81
Duplicating Machine Operator	9.81
Film/Tape Librarian	11.91
General Clerk I	9.08
General Clerk II	10.22
General Clerk III	10.98
General Clerk IV	12.33
Housing Referral Assistant	14.77
Key Entry Operator I	9.36
Key Entry Operator II	11.08
Messenger (Courier)	8.98
Order Clerk I	9.03
Order Clerk II	12.36
Personnel Assistant (Employment) I	10.43
Personnel Assistant (Employment) II	11.74
Personnel Assistant (Employment) III	12.36
Personnel Assistant (Employment) IV	15.16
Production Control Clerk	15.83
Rental Clerk	10.99
Scheduler, Maintenance	12.43
Secretary I	12.43
Secretary II	13.67
Secretary III	14.77
Secretary IV	16.80
Secretary V	18.50
Service Order Dispatcher	11.30
Stenographer I	10.97
Stenographer II	11.76
Supply Technician	16.80
Survey Worker (Interviewer)	12.94
Switchboard Operator-Receptionist	9.05
Test Examiner	13.67
Test Proctor	13.67
Travel Clerk I	9.55
Travel Clerk II	10.34
Travel Clerk III	10.66

Word Processor I	10.20
Word Processor II	11.44
Word Processor III	12.79
Automatic Data Processing Occupations	
Computer Data Librarian	11.16
Computer Operator I	13.03
Computer Operator II	14.18
Computer Operator III	15.89
Computer Operator IV	17.45
Computer Operator V	19.46
Computer Programmer I (1)	17.77
Computer Programmer II (1)	21.29
Computer Programmer III (1)	25.73
Computer Programmer IV (1)	28.45
Computer Systems Analyst I (1)	21.79
Computer Systems Analyst II (1)	25.63
Computer Systems Analyst III (1)	27.62
Peripheral Equipment Operator	11.29
Automotive Service Occupations	
Automotive Body Repairer, Fiberglass	16.49
Automotive Glass Installer	15.00
Automotive Worker	15.00
Electrician, Automotive	15.86
Mobile Equipment Servicer	13.54
Motor Equipment Metal Mechanic	16.49
Motor Equipment Metal Worker	15.00
Motor Vehicle Mechanic	16.49
Motor Vehicle Mechanic Helper	12.74
Motor Vehicle Upholstery Worker	14.48
Motor Vehicle Wrecker	15.00
Painter, Automotive	15.76
Radiator Repair Specialist	15.00
Tire Repairer	13.08
Transmission Repair Specialist	16.49
Food Preparation and Service Occupations	
Baker	11.11
Cook I	10.11
Cook II	11.11
Dishwasher	7.82
Food Service Worker	7.82
Meat Cutter	11.38
Waiter/Waitress	8.47
Furniture Maintenance and Repair Occupations	
Electrostatic Spray Painter	15.76
Furniture Handler	12.39
Furniture Refinisher	15.76
Furniture Refinisher Helper	12.74
Furniture Repairer, Minor	14.28
Upholsterer	15.76
General Services and Support Occupations	
Cleaner, Vehicles	7.82
Elevator Operator	8.99
Gardener	10.11
House Keeping Aid I	7.82
House Keeping Aid II	9.74
Janitor	8.99
Laborer, Grounds Maintenance	8.47
Maid or Houseman	7.02
Pest Controller	12.25
Refuse Collector	8.99

Tractor Operator	9.87
Window Cleaner	9.74
Health Occupations	
Dental Assistant	11.77
Emergency Medical Technician (EMT)/Paramedic/Ambulance Driver	12.02
Licensed Practical Nurse I	10.51
Licensed Practical Nurse II	11.80
Licensed Practical Nurse III	13.21
Medical Assistant	10.73
Medical Laboratory Technician	11.80
Medical Record Clerk	12.34
Medical Record Technician	12.93
Nursing Assistant I	8.45
Nursing Assistant II	9.50
Nursing Assistant III	10.36
Nursing Assistant IV	11.64
Pharmacy Technician	11.63
Phlebotomist	11.80
Registered Nurse I	15.99
Registered Nurse II	19.56
Registered Nurse II, Specialist	19.56
Registered Nurse III	23.68
Registered Nurse III, Anesthetist	23.68
Registered Nurse IV	28.37
Information and Arts Occupations	
Audiovisual Librarian	19.30
Exhibits Specialist I	16.21
Exhibits Specialist II	19.30
Exhibits Specialist III	21.10
Illustrator I	16.22
Illustrator II	19.30
Illustrator III	21.10
Librarian	20.37
Library Technician	12.44
Photographer I	12.81
Photographer II	15.50
Photographer III	18.45
Photographer IV	20.18
Photographer V	22.30
Laundry, Dry Cleaning, Pressing and Related Occupations	
Assembler	7.18
Counter Attendant	7.18
Dry Cleaner	8.36
Finisher, Flatwork, Machine	7.18
Presser, Hand	7.18
Presser, Machine, Drycleaning	7.18
Presser, Machine, Shirts	7.18
Presser, Machine, Wearing Apparel, Laundry	7.18
Sewing Machine Operator	8.89
Tailor	9.42
Washer, Machine	7.29
Machine Tool Operation and Repair Occupations	
Machine-Tool Operator (Toolroom)	15.76
Tool and Die Maker	18.73
Material Handling and Packing Occupations	
Forklift Operator	11.20
Fuel Distribution System Operator	14.48
Material Coordinator	16.43
Material Expediter	16.43
Material Handling Laborer	7.60

Order Filler	11.67
Production Line Worker (Food Processing)	12.68
Shipping Packer	10.57
Shipping/Receiving Clerk	11.03
Stock Clerk (Shelf Stocker; Store Worker II)	12.62
Store Worker I	9.52
Tools and Parts Attendant	14.66
Warehouse Specialist	14.58
Mechanics and Maintenance and Repair Occupations	
Aircraft Mechanic	18.14
Aircraft Mechanic Helper	12.74
Aircraft Quality Control Inspector	17.76
Aircraft Servicer	14.28
Aircraft Worker	15.00
Appliance Mechanic	15.76
Bicycle Repairer	13.08
Cable Splicer	16.49
Carpenter, Maintenance	15.76
Carpet Layer	15.19
Electrician, Maintenance	16.49
Electronics Technician, Maintenance I	19.66
Electronics Technician, Maintenance II	24.69
Electronics Technician, Maintenance III	27.74
Fabric Worker	14.28
Fire Alarm System Mechanic	16.49
Fire Extinguisher Repairer	13.54
Fuel Distribution System Mechanic	16.49
General Maintenance Worker	16.50
Heating, Refrigeration and Air Conditioning Mechanic	16.49
Heavy Equipment Mechanic	16.49
Heavy Equipment Operator	16.49
Instrument Mechanic	16.49
Laborer	11.04
Locksmith	15.76
Machinery Maintenance Mechanic	16.49
Machinist, Maintenance	17.68
Maintenance Trades Helper	12.74
Millwright	17.28
Office Appliance Repairer	15.76
Painter, Aircraft	15.97
Painter, Maintenance	15.76
Pipefitter, Maintenance	16.49
Plumber, Maintenance	15.76
Pneudraulic Systems Mechanic	16.49
Rigger	16.49
Scale Mechanic	15.00
Sheet-Metal Worker, Maintenance	16.49
Small Engine Mechanic	15.00
Telecommunication Mechanic I	18.14
Telecommunication Mechanic II	18.96
Telephone Lineman	16.49
Welder, Combination, Maintenance	16.49
Well Driller	16.49
Woodcraft Worker	16.49
Woodworker	13.54
Miscellaneous Occupations	
Animal Caretaker	9.00
Carnival Equipment Operator	11.35
Carnival Equipment Repairer	11.62
Carnival Worker	7.82

Cashier	7.16
Desk Clerk	7.52
Embalmer	17.93
Lifeguard	9.42
Mortician	18.67
Park Attendant (Aide)	11.84
Photofinishing Worker (Photo Lab Tech., Darkroom Tech)	8.68
Recreation Specialist	14.12
Recycling Worker	12.03
Sales Clerk	9.16
School Crossing Guard (Crosswalk Attendant)	8.68
Sport Official	8.24
Survey Party Chief (Chief of Party)	13.10
Surveying Aide	8.68
Surveying Technician (Instr. Person/Surveyor Asst./Instr.)	11.91
Swimming Pool Operator	12.22
Vending Machine Attendant	12.03
Vending Machine Repairer	14.05
Vending Machine Repairer Helper	12.03
Personal Needs Occupations	
Child Care Attendant	7.32
Child Care Center Clerk	10.48
Chore Aid	7.91
Homemaker	12.83
Plant and System Operation Occupations	
Boiler Tender	16.49
Sewage Plant Operator	15.76
Stationary Engineer	16.49
Ventilation Equipment Tender	12.74
Water Treatment Plant Operator	16.43
Protective Service Occupations	
Alarm Monitor	13.13
Corrections Officer	13.42
Court Security Officer	13.56
Detention Officer	13.42
Firefighter	13.83
Guard I	7.33
Guard II	12.94
Police Officer	16.08
Stevedoring/Longshoremen Occupations	
Blocker and Bracer	16.68
Hatch Tender	14.97
Line Handler	14.97
Stevedore I	16.17
Stevedore II	17.91
Technical Occupations	
Air Traffic Control Specialist, Center (2)	28.21
Air Traffic Control Specialist, Station (2)	19.46
Air Traffic Control Specialist, Terminal (2)	21.43
Archeological Technician I	12.68
Archeological Technician II	14.41
Archeological Technician III	17.61
Cartographic Technician	18.87
Civil Engineering Technician	15.58
Computer Based Training (CBT) Specialist/ Instructor	23.46
Drafter I	9.26
Drafter II	11.91
Drafter III	14.41
Drafter IV	17.15
Engineering Technician I	9.33

Engineering Technician II	11.99
Engineering Technician III	14.51
Engineering Technician IV	17.27
Engineering Technician V	18.89
Engineering Technician VI	20.88
Environmental Technician	17.45
Flight Simulator/Instructor (Pilot)	25.63
Graphic Artist	20.23
Instructor	21.12
Laboratory Technician	17.48
Mathematical Technician	16.84
Paralegal/Legal Assistant I	12.28
Paralegal/Legal Assistant II	16.61
Paralegal/Legal Assistant III	20.31
Paralegal/Legal Assistant IV	24.59
Photooptics Technician	16.84
Technical Writer	21.58
Unexploded (UXO) Safety Escort	17.93
Unexploded (UXO) Sweep Personnel	17.93
Unexploded Ordnance (UXO) Technician I	17.93
Unexploded Ordnance (UXO) Technician II	21.70
Unexploded Ordnance (UXO) Technician III	26.01
Weather Observer, Combined Upper Air and Surface Programs (3)	16.45
Weather Observer, Senior (3)	18.27
Weather Observer, Upper Air (3)	16.45
Transportation/ Mobile Equipment Operation Occupations	
Bus Driver	15.08
Parking and Lot Attendant	9.94
Shuttle Bus Driver	13.42
Taxi Driver	10.94
Truckdriver, Heavy Truck	14.89
Truckdriver, Light Truck	13.42
Truckdriver, Medium Truck	14.16
Truckdriver, Tractor-Trailer	14.89

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 $2.56 per hour computed on the basis of all hours worked by service employees employed on the contract.

VACATION: 2 weeks paid vacation after 1 year of service with a contractor or successor; 3 weeks after 5 years, and 4 weeks after 15 years. Length of service includes the whole span of continuous service with the present contractor or successor, wherever employed, and with the predecessor contractors in the performance of similar work at the same Federal facility. (Reg. 29 CFR 4.173)

HOLIDAYS: A minimum of ten paid holidays per year: New Year's Day, Martin Luther King Jr.'s Birthday, Washington's Birthday, Memorial Day, Independence Day, Labor Day, Columbus Day, Veterans' Day, Thanksgiving Day, and Christmas Day. (A contractor may substitute for any of the named holidays another day off with pay in accordance with a plan communicated to the employees involved.) (See 29 CFR 4.174)

THE OCCUPATIONS WHICH HAVE PARENTHESES AFTER THEM RECEIVE THE FOLLOWING BENEFITS (as numbered):
1) Does not apply to employees employed in a bona fide executive, administrative, or professional capacity as defined and delineated in 29 CFR 541. (See CFR 4.156)

2) APPLICABLE TO AIR TRAFFIC CONTROLLERS ONLY - NIGHT DIFFERENTIAL: An employee is entitled to pay for all work performed between the hours of 6:00 P.M. and 6:00 A.M. at the rate of basic pay plus a night pay differential amounting to 10 percent of the rate of basic pay.

3) WEATHER OBSERVERS - NIGHT PAY & SUNDAY PAY: If you work at night as part of a regular tour of duty, you will earn a night differential and receive an additional 10% of basic pay for any hours worked between 6pm and 6am. If you are a full-time employed (40 hours a week) and Sunday is part of your regularly scheduled workweek, you are paid at your rate of basic pay plus a Sunday premium of 25% of your basic rate for each hour of Sunday work which is not overtime (i.e. occasional work on Sunday outside the normal tour of duty is considered overtime work).

HAZARDOUS PAY DIFFERENTIAL

An 8 percent differential is applicable to employees employed in a position that represents a high degree of hazard when working with or in close proximity to ordinance, explosives, and incendiary materials. This includes work such as screening, blending, dying, mixing, and pressing of sensitive ordance, explosives, and pyrotechnic compositions such as lead azide, black powder and photoflash powder. All dry-house activities involving propellants or explosives. Demilitarization, modification, renovation, demolition, and maintenance operations on sensitive ordnance, explosives and incendiary materials. All operations involving 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 ordance, (or employees possibly adjacent to) explosives and incendiary materials which involves potential injury such as laceration of hands, face, or arms of the employee engaged in the operation, irritation of the skin, minor burns and the like; minimal damage to immediate or adjacent work area or equipment being used. All operations involving, unloading, storage, and hauling of ordance, explosive, and incendiary ordnance material other than small arms ammunition.

These differentials are only applicable to work that has been specifically designated by the agency for ordance, explosives, and incendiary material differential pay.

**** UNIFORM ALLOWANCE ****

If employees are required to wear uniforms in the performance of this contract (either by the terms of the Government contract, by the employer, by the state or local law, etc.), the cost of furnishing such uniforms and maintaining (by laundering or dry cleaning) such uniforms is an expense that may not be borne by an employee where such cost reduces the hourly rate below that required by the wage determination. The Department of Labor will accept payment in accordance with the following standards as compliance:

The contractor or subcontractor is required to furnish all employees with an adequate number of uniforms without cost or to reimburse employees for the actual cost of the uniforms. In addition, where uniform cleaning and maintenance is made the responsibility of the employee, all contractors and subcontractors subject to this wage determination shall (in the absence of a bona fide collective bargaining agreement providing for a different amount, or the furnishing of contrary affirmative proof as to the actual cost), reimburse all employees for such cleaning and maintenance at a rate of $3.35 per week (or $.67 cents per day). However, in those instances where the uniforms furnished are made of "wash and wear" materials, may be routinely washed and dried with other personal garments, and do not require any special treatment such as dry cleaning, daily washing, or commercial laundering in order to meet the cleanliness or appearance standards set by the terms of the

Government contract, by the contractor, by law, or by the nature of the work, there is no requirement that employees be reimbursed for uniform maintenance costs.

**** NOTES APPLYING TO THIS WAGE DETERMINATION ****

Source of Occupational Title and Descriptions:
The duties of employees under job titles listed are those described in the "Service Contract Act Directory of Occupations," Fourth Edition, January 1993, as amended by the Third Supplement, dated March 1997, unless otherwise indicated. This publication may be obtained from the Superintendent of Documents, at 202-783-3238, or by writing to the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Copies of specific job descriptions may also be obtained from the appropriate contracting officer.

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.

REGISTER OF WAGE DETERMINATIONS UNDER THE SERVICE CONTRACT ACT By direction of the Secretary of Labor	U.S. DEPARTMENT OF LABOR EMPLOYMENT STANDARDS ADMINISTRATION WAGE AND HOUR DIVISION WASHINGTON D.C. 20210
William W.Gross Director Division of Wage Determinations	Wage Determination No.: 1994-2234 Revision No.: 16 Date Of Last Revision: 04/12/2002

State: Louisiana

Area: Louisiana Parishes of Jefferson, Lafourche, Orleans, Plaquemines, Saint John The Baptist, St Bernard, St Charles, St Tammany, Terrebonne, Washington

Fringe Benefits Required Follow the Occupational Listing

OCCUPATION TITLE	MINIMUM WAGE RATE
Administrative Support and Clerical Occupations	
Accounting Clerk I	7.87
Accounting Clerk II	9.75
Accounting Clerk III	11.46
Accounting Clerk IV	13.85
Court Reporter	13.44
Dispatcher, Motor Vehicle	12.42
Document Preparation Clerk	11.51
Duplicating Machine Operator	11.51
Film/Tape Librarian	10.93
General Clerk I	6.02
General Clerk II	8.48
General Clerk III	9.86
General Clerk IV	11.84
Housing Referral Assistant	15.74
Key Entry Operator I	9.47
Key Entry Operator II	11.56
Messenger (Courier)	8.27
Order Clerk I	10.43
Order Clerk II	12.41
Personnel Assistant (Employment) I	7.67
Personnel Assistant (Employment) II	9.19
Personnel Assistant (Employment) III	12.56
Personnel Assistant (Employment) IV	13.02
Production Control Clerk	15.04
Rental Clerk	11.28
Scheduler, Maintenance	11.41
Secretary I	11.41
Secretary II	13.10
Secretary III	15.74
Secretary IV	19.09
Secretary V	22.22
Service Order Dispatcher	11.19
Stenographer I	12.21
Stenographer II	12.38
Supply Technician	19.09
Survey Worker (Interviewer)	10.80
Switchboard Operator-Receptionist	8.99
Test Examiner	13.10

Test Proctor	13.10
Travel Clerk I	10.49
Travel Clerk II	11.06
Travel Clerk III	11.67
Word Processor I	9.59
Word Processor II	12.51
Word Processor III	14.23

Automatic Data Processing Occupations

Computer Data Librarian	9.63
Computer Operator I	9.63
Computer Operator II	10.83
Computer Operator III	12.50
Computer Operator IV	13.87
Computer Operator V	15.38
Computer Programmer I (1)	15.51
Computer Programmer II (1)	17.86
Computer Programmer III (1)	22.13
Computer Programmer IV (1)	26.59
Computer Systems Analyst I (1)	19.15
Computer Systems Analyst II (1)	25.02
Computer Systems Analyst III (1)	27.62
Peripheral Equipment Operator	12.49

Automotive Service Occupations

Automotive Body Repairer, Fiberglass	15.66
Automotive Glass Installer	13.85
Automotive Worker	13.85
Electrician, Automotive	14.81
Mobile Equipment Servicer	11.91
Motor Equipment Metal Mechanic	15.66
Motor Equipment Metal Worker	13.85
Motor Vehicle Mechanic	15.66
Motor Vehicle Mechanic Helper	10.95
Motor Vehicle Upholstery Worker	12.89
Motor Vehicle Wrecker	13.85
Painter, Automotive	14.81
Radiator Repair Specialist	13.85
Tire Repairer	11.51
Transmission Repair Specialist	15.66

Food Preparation and Service Occupations

Baker	9.47
Cook I	8.17
Cook II	9.50
Dishwasher	6.86
Food Service Worker	6.86
Meat Cutter	10.49
Waiter/Waitress	6.09

Furniture Maintenance and Repair Occupations

Electrostatic Spray Painter	14.81
Furniture Handler	10.80
Furniture Refinisher	14.81
Furniture Refinisher Helper	10.95

Furniture Repairer, Minor	12.89
Upholsterer	14.81

General Services and Support Occupations

Cleaner, Vehicles	7.37
Elevator Operator	7.37
Gardener	10.32
House Keeping Aid I	6.86
House Keeping Aid II	7.62
Janitor	7.78
Laborer, Grounds Maintenance	8.59
Maid or Houseman	6.68
Pest Controller	11.08
Refuse Collector	7.90
Tractor Operator	9.95
Window Cleaner	8.72

Health Occupations

Dental Assistant	10.93
Emergency Medical Technician (EMT)/Paramedic/Ambulance Driver	11.87
Licensed Practical Nurse I	11.00
Licensed Practical Nurse II	12.82
Licensed Practical Nurse III	13.97
Medical Assistant	9.77
Medical Laboratory Technician	13.12
Medical Record Clerk	11.18
Medical Record Technician	13.54
Nursing Assistant I	7.48
Nursing Assistant II	8.41
Nursing Assistant III	9.18
Nursing Assistant IV	10.29
Pharmacy Technician	12.19
Phlebotomist	10.55
Registered Nurse I	17.60
Registered Nurse II	22.82
Registered Nurse II, Specialist	25.53
Registered Nurse III	29.36
Registered Nurse III, Anesthetist	29.36
Registered Nurse IV	35.18

Information and Arts Occupations

Audiovisual Librarian	15.71
Exhibits Specialist I	15.97
Exhibits Specialist II	18.68
Exhibits Specialist III	22.79
Illustrator I	15.97
Illustrator II	18.68
Illustrator III	22.79
Librarian	18.30
Library Technician	10.80
Photographer I	13.59
Photographer II	15.97
Photographer III	18.68
Photographer IV	22.79
Photographer V	27.64

Laundry, Dry Cleaning, Pressing and Related Occupations

Assembler	6.95
Counter Attendant	6.95
Dry Cleaner	8.86
Finisher, Flatwork, Machine	6.95
Presser, Hand	6.95
Presser, Machine, Drycleaning	6.95
Presser, Machine, Shirts	6.95
Presser, Machine, Wearing Apparel, Laundry	6.95
Sewing Machine Operator	9.50
Tailor	10.14
Washer, Machine	7.59

Machine Tool Operation and Repair Occupations

Machine-Tool Operator (Toolroom)	15.10
Tool and Die Maker	18.42

Material Handling and Packing Occupations

Forklift Operator	12.42
Fuel Distribution System Operator	15.07
Material Coordinator	15.11
Material Expediter	15.11
Material Handling Laborer	14.29
Order Filler	10.32
Production Line Worker (Food Processing)	10.83
Shipping Packer	11.87
Shipping/Receiving Clerk	11.87
Stock Clerk (Shelf Stocker; Store Worker II)	10.32
Store Worker I	8.63
Tools and Parts Attendant	12.42
Warehouse Specialist	12.42

Mechanics and Maintenance and Repair Occupations

Aircraft Mechanic	19.61
Aircraft Mechanic Helper	13.72
Aircraft Quality Control Inspector	20.62
Aircraft Servicer	16.13
Aircraft Worker	17.35
Appliance Mechanic	15.01
Bicycle Repairer	11.51
Cable Splicer	18.01
Carpenter, Maintenance	14.81
Carpet Layer	13.85
Electrician, Maintenance	16.93
Electronics Technician, Maintenance I	17.68
Electronics Technician, Maintenance II	18.62
Electronics Technician, Maintenance III	19.72
Fabric Worker	12.89
Fire Alarm System Mechanic	16.30
Fire Extinguisher Repairer	12.41
Fuel Distribution System Mechanic	17.23
General Maintenance Worker	13.95
Heating, Refrigeration and Air Conditioning Mechanic	18.01
Heavy Equipment Mechanic	15.90
Heavy Equipment Operator	15.42

Instrument Mechanic	18.82
Laborer	8.80
Locksmith	14.81
Machinery Maintenance Mechanic	17.30
Machinist, Maintenance	18.45
Maintenance Trades Helper	10.95
Millwright	17.85
Office Appliance Repairer	15.00
Painter, Aircraft	15.76
Painter, Maintenance	14.81
Pipefitter, Maintenance	17.37
Plumber, Maintenance	16.43
Pneudraulic Systems Mechanic	16.04
Rigger	15.66
Scale Mechanic	13.97
Sheet-Metal Worker, Maintenance	15.66
Small Engine Mechanic	15.93
Telecommunication Mechanic I	20.06
Telecommunication Mechanic II	21.10
Telephone Lineman	20.06
Welder, Combination, Maintenance	15.66
Well Driller	16.04
Woodcraft Worker	16.04
Woodworker	11.91

Miscellaneous Occupations

Animal Caretaker	7.29
Carnival Equipment Operator	9.78
Carnival Equipment Repairer	10.64
Carnival Worker	7.18
Cashier	7.18
Desk Clerk	8.82
Embalmer	18.23
Lifeguard	9.72
Mortician	18.23
Park Attendant (Aide)	12.20
Photofinishing Worker (Photo Lab Tech., Darkroom Tech)	9.70
Recreation Specialist	12.20
Recycling Worker	10.76
Sales Clerk	8.95
School Crossing Guard (Crosswalk Attendant)	6.66
Sport Official	9.47
Survey Party Chief (Chief of Party)	14.82
Surveying Aide	10.95
Surveying Technician (Instr. Person/Surveyor Asst./Instr.)	13.46
Swimming Pool Operator	11.83
Vending Machine Attendant	10.76
Vending Machine Repairer	13.60
Vending Machine Repairer Helper	10.76

Personal Needs Occupations

Child Care Attendant	8.82
Child Care Center Clerk	11.57
Chore Aid	6.32
Homemaker	14.78

Plant and System Operation Occupations

Boiler Tender	16.13
Sewage Plant Operator	14.81
Stationary Engineer	16.13
Ventilation Equipment Tender	10.95
Water Treatment Plant Operator	14.81

Protective Service Occupations

Alarm Monitor	10.52
Corrections Officer	10.87
Court Security Officer	12.33
Detention Officer	10.87
Firefighter	12.98
Guard I	7.41
Guard II	11.70
Police Officer	14.75

Stevedoring/Longshoremen Occupations

Blocker and Bracer	16.85
Hatch Tender	18.07
Line Handler	18.07
Stevedore I	14.62
Stevedore II	16.79

Technical Occupations

Air Traffic Control Specialist, Center (2)	29.10
Air Traffic Control Specialist, Station (2)	20.07
Air Traffic Control Specialist, Terminal (2)	22.09
Archeological Technician I	14.70
Archeological Technician II	16.43
Archeological Technician III	20.35
Cartographic Technician	23.42
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Drafter I	14.84
Drafter II	17.03
Drafter III	19.46
Drafter IV	23.42
Engineering Technician I	15.26
Engineering Technician II	16.86
Engineering Technician III	18.94
Engineering Technician IV	22.59
Engineering Technician V	27.64
Engineering Technician VI	30.84
Environmental Technician	22.92
Flight Simulator/Instructor (Pilot)	26.99
Graphic Artist	17.80
Instructor	18.86
Laboratory Technician	16.39
Mathematical Technician	21.92
Paralegal/Legal Assistant I	13.08
Paralegal/Legal Assistant II	17.28
Paralegal/Legal Assistant III	21.14
Paralegal/Legal Assistant IV	25.59
Photooptics Technician	21.92

Technical Writer	21.81
Unexploded (UXO) Safety Escort	18.49
Unexploded (UXO) Sweep Personnel	18.49
Unexploded Ordnance (UXO) Technician I	18.49
Unexploded Ordnance (UXO) Technician II	22.37
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Weather Observer, Combined Upper Air and Surface Programs (3)	13.33
Weather Observer, Senior (3)	16.21
Weather Observer, Upper Air (3)	13.33
Transportation/ Mobile Equipment Operation Occupations	
Bus Driver	12.75
Parking and Lot Attendant	7.29
Shuttle Bus Driver	10.27
Taxi Driver	8.57
Truckdriver, Heavy Truck	14.33
Truckdriver, Light Truck	11.48
Truckdriver, Medium Truck	13.28
Truckdriver, Tractor-Trailer	14.33

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 $2.56 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 8 years, and 4 weeks after 15 years. Length of service includes the whole span of continuous service with the present contractor or successor, wherever employed, and with the predecessor contractors in the performance of similar work at the same Federal facility. (Reg. 29 CFR 4.173)

HOLIDAYS: A minimum of ten paid holidays per year: New Year's Day, Martin Luther King Jr.'s Birthday, Washington's Birthday, Memorial Day, Independence Day, Labor Day, Columbus Day, Veterans' Day, Thanksgiving Day, and Christmas Day. (A contractor may substitute for any of the named holidays another day off with pay in accordance with a plan communicated to the employees involved.) (See 29 CFR 4.174)

THE OCCUPATIONS WHICH HAVE PARENTHESES AFTER THEM RECEIVE THE FOLLOWING BENEFITS (as numbered):

1) Does not apply to employees employed in a bona fide executive, administrative, or professional capacity as defined and delineated in 29 CFR 541. (See CFR 4.156)

2) APPLICABLE TO AIR TRAFFIC CONTROLLERS ONLY - NIGHT DIFFERENTIAL: An employee is entitled to pay for all work performed between the hours of 6:00 P.M. and 6:00 A.M. at the rate of basic pay plus a night pay differential amounting to 10 percent of the rate of basic pay.

3) WEATHER OBSERVERS - NIGHT PAY & SUNDAY PAY: If you work at night as part of a regular
tour of duty, you will earn a night differential and receive an additional 10% of basic pay for any hours worked between 6pm and 6am. If you are a full-time employed (40 hours a week) and Sunday is part of your regularly scheduled workweek, you are paid at your rate of basic pay plus a Sunday premium of 25% of your basic rate for

each hour of Sunday work which is not overtime (i.e. occasional work on Sunday outside the normal tour of duty is considered overtime work).

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An 8 percent differential is applicable to employees employed in a position that represents a high degree of hazard when working with or in close proximity to ordinance, explosives, and incendiary materials. This includes work such as screening, blending, dying, mixing, and pressing of sensitive 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.

These differentials are only applicable to work that has been specifically designated by the agency for ordnance, explosives, and incendiary material differential pay.

**** UNIFORM ALLOWANCE ****

If employees are required to wear uniforms in the performance of this contract (either by the terms of the Government contract, by the employer, by the state or local law, etc.), the cost of furnishing such uniforms and maintaining (by laundering or dry cleaning) such uniforms is an expense that may not be borne by an employee where such cost reduces the hourly rate below that required by the wage determination. The Department of Labor will accept payment in accordance with the following standards as compliance:

The contractor or subcontractor is required to furnish all employees with an adequate number of uniforms without cost or to reimburse employees for the actual cost of the uniforms. In addition, where uniform cleaning and maintenance is made the responsibility of the employee, all contractors and subcontractors subject to this wage determination shall (in the absence of a bona fide collective bargaining agreement providing for a different amount, or the furnishing of contrary affirmative proof as to the actual cost), reimburse all employees for such cleaning and maintenance at a rate of $3.35 per week (or $.67 cents per day). However, in those instances where the uniforms furnished are made of "wash and wear" materials, may be routinely washed and dried with other personal garments, and do not require any special treatment such as dry cleaning, daily washing, or commercial laundering in order to meet the cleanliness or appearance standards set by the terms of the Government contract, by the contractor, by law, or by the nature of the work, there is no requirement that employees be reimbursed for uniform maintenance costs.

**** NOTES APPLYING TO THIS WAGE DETERMINATION ****

Source of Occupational Title and Descriptions:

The duties of employees under job titles listed are those described in the "Service Contract Act Directory of Occupations," Fourth Edition, January 1993, as amended by the Third Supplement, dated March 1997, unless otherwise indicated. This publication

may be obtained from the Superintendent of Documents, at 202-783-3238, or by writing to the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Copies of specific job descriptions may also be obtained from the appropriate contracting officer.

REQUEST FOR AUTHORIZATION OF ADDITIONAL CLASSIFICATION AND WAGE RATE {Standard Form 1444 (SF 1444)}

Conformance Process:
The contracting officer shall require that any class of service employee which is not listed herein and which is to be employed under the contract (i.e., the work to be performed is not performed by any classification listed in the wage determination), be classified by the contractor so as to provide a reasonable relationship (i.e., appropriate level of skill comparison) between such unlisted classifications and the classifications listed in the wage determination. Such conformed classes of employees shall be paid the monetary wages and furnished the fringe benefits as are determined. Such conforming process shall be initiated by the contractor prior to the performance of contract work by such unlisted class(es) of employees. The conformed classification, wage rate, and/or fringe benefits shall be retroactive to the commencement date of the contract. {See Section 4.6 (C)(vi)} When multiple wage determinations are included in a contract, a separate SF-1444 should be prepared for each wage determination to which a class(es) is to be conformed.

The process for preparing a conformance request is as follows:

1) When preparing the bid, the contractor identifies the need for a conformed occupation(s) and computes a proposed rate(s).
2) After contract award, the contractor prepares a written report listing in order proposed classification title(s), a Federal grade equivalency (FGE) for each proposed classification(s), job description(s), and rationale for proposed wage rate(s), including information regarding the agreement or disagreement of the authorized representative of the employees involved, or where there is no authorized representative, the employees themselves. This report should be submitted to the contracting officer no later than 30 days after such unlisted class(es) of employees performs any contract work.
3) The contracting officer reviews the proposed action and promptly submits a report of the action, together with the agency's recommendations and pertinent information including the position of the contractor and the employees, to the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, for review. (See section 4.6(b)(2) of Regulations 29 CFR Part 4).
4) Within 30 days of receipt, the Wage and Hour Division approves, modifies, or disapproves the action via transmittal to the agency contracting officer, or notifies the contracting officer that additional time will be required to process the request.
5) The contracting officer transmits the Wage and Hour decision to the contractor.
6) The contractor informs the affected employees.

Information required by the Regulations must be submitted on SF 1444 or bond paper.
When preparing a conformance request, the "Service Contract Act Directory of Occupations" (the Directory) should be used to compare job definitions to insure that duties requested are not performed by a classification already listed in the wage determination. Remember, it is not the job title, but the required tasks that determine whether a class is included in an established wage determination. Conformances may not be used to artificially split, combine, or subdivide classifications listed in the wage determination.

REGISTER OF WAGE DETERMINATIONS UNDER THE SERVICE CONTRACT ACT By direction of the Secretary of Labor	U.S. DEPARTMENT OF LABOR EMPLOYMENT STANDARDS ADMINISTRATION WAGE AND HOUR DIVISION WASHINGTON D.C. 20210
William W.Gross Director — Division of Wage Determinations	Wage Determination No.: 1994-2248 Revision No.: 19 Date Of Last Revision: 07/29/2002

State: Maryland

Area: Maryland Counties of Anne Arundel, Baltimore, Baltimore City, Carroll, Harford, Howard

Fringe Benefits Required Follow the Occupational Listing

OCCUPATION TITLE	MINIMUM WAGE RATE
Administrative Support and Clerical Occupations	
Accounting Clerk I	9.93
Accounting Clerk II	11.45
Accounting Clerk III	12.45
Accounting Clerk IV	16.07
Court Reporter	14.94
Dispatcher, Motor Vehicle	14.28
Document Preparation Clerk	11.27
Duplicating Machine Operator	11.13
Film/Tape Librarian	11.69
General Clerk I	9.08
General Clerk II	11.10
General Clerk III	12.79
General Clerk IV	14.11
Housing Referral Assistant	16.95
Key Entry Operator I	9.93
Key Entry Operator II	12.26
Messenger (Courier)	8.73
Order Clerk I	13.00
Order Clerk II	14.44
Personnel Assistant (Employment) I	12.33
Personnel Assistant (Employment) II	13.83
Personnel Assistant (Employment) III	15.98
Personnel Assistant (Employment) IV	17.78
Production Control Clerk	16.95
Rental Clerk	14.19
Scheduler, Maintenance	14.06
Secretary I	14.19
Secretary II	15.13
Secretary III	16.95
Secretary IV	18.55
Secretary V	20.59
Service Order Dispatcher	14.06
Stenographer I	14.69
Stenographer II	16.46
Supply Technician	18.55
Survey Worker (Interviewer)	14.94
Switchboard Operator-Receptionist	10.65
Test Examiner	14.94
Test Proctor	14.94
Travel Clerk I	9.67
Travel Clerk II	10.63

Travel Clerk III	11.73
Word Processor I	11.80
Word Processor II	14.22
Word Processor III	15.75
Automatic Data Processing Occupations	
Computer Data Librarian	11.64
Computer Operator I	13.39
Computer Operator II	15.40
Computer Operator III	18.73
Computer Operator IV	19.07
Computer Operator V	21.97
Computer Programmer I (1)	18.15
Computer Programmer II (1)	20.98
Computer Programmer III (1)	25.17
Computer Programmer IV (1)	26.37
Computer Systems Analyst I (1)	25.40
Computer Systems Analyst II (1)	27.62
Computer Systems Analyst III (1)	27.62
Peripheral Equipment Operator	13.39
Automotive Service Occupations	
Automotive Body Repairer, Fiberglass	18.28
Automotive Glass Installer	15.64
Automotive Worker	15.64
Electrician, Automotive	16.82
Mobile Equipment Servicer	14.46
Motor Equipment Metal Mechanic	16.82
Motor Equipment Metal Worker	15.64
Motor Vehicle Mechanic	16.82
Motor Vehicle Mechanic Helper	13.86
Motor Vehicle Upholstery Worker	15.64
Motor Vehicle Wrecker	15.64
Painter, Automotive	16.18
Radiator Repair Specialist	15.64
Tire Repairer	13.77
Transmission Repair Specialist	16.82
Food Preparation and Service Occupations	
Baker	11.06
Cook I	9.45
Cook II	10.25
Dishwasher	8.02
Food Service Worker	8.39
Meat Cutter	11.88
Waiter/Waitress	7.65
Furniture Maintenance and Repair Occupations	
Electrostatic Spray Painter	15.95
Furniture Handler	13.31
Furniture Refinisher	15.95
Furniture Refinisher Helper	13.66
Furniture Repairer, Minor	14.81
Upholsterer	15.95
General Services and Support Occupations	
Cleaner, Vehicles	8.67
Elevator Operator	9.23
Gardener	10.75
House Keeping Aid I	8.76
House Keeping Aid II	9.22
Janitor	9.22
Laborer, Grounds Maintenance	9.68
Maid or Houseman	8.76
Pest Controller	9.94

Refuse Collector	9.22
Tractor Operator	10.54
Window Cleaner	9.75
Health Occupations	
Dental Assistant	11.79
Emergency Medical Technician (EMT)/Paramedic/Ambulance Driver	12.85
Licensed Practical Nurse I	14.22
Licensed Practical Nurse II	16.03
Licensed Practical Nurse III	17.60
Medical Assistant	11.58
Medical Laboratory Technician	12.63
Medical Record Clerk	12.63
Medical Record Technician	15.20
Nursing Assistant I	8.45
Nursing Assistant II	9.50
Nursing Assistant III	11.23
Nursing Assistant IV	12.61
Pharmacy Technician	12.45
Phlebotomist	11.51
Registered Nurse I	20.98
Registered Nurse II	23.68
Registered Nurse II, Specialist	23.68
Registered Nurse III	29.87
Registered Nurse III, Anesthetist	29.87
Registered Nurse IV	32.33
Information and Arts Occupations	
Audiovisual Librarian	19.27
Exhibits Specialist I	17.60
Exhibits Specialist II	21.29
Exhibits Specialist III	22.85
Illustrator I	17.60
Illustrator II	21.29
Illustrator III	22.85
Librarian	19.66
Library Technician	14.06
Photographer I	12.88
Photographer II	16.00
Photographer III	19.35
Photographer IV	20.77
Photographer V	25.12
Laundry, Dry Cleaning, Pressing and Related Occupations	
Assembler	7.30
Counter Attendant	7.30
Dry Cleaner	9.54
Finisher, Flatwork, Machine	7.30
Presser, Hand	7.30
Presser, Machine, Drycleaning	7.30
Presser, Machine, Shirts	7.30
Presser, Machine, Wearing Apparel, Laundry	7.30
Sewing Machine Operator	10.13
Tailor	11.31
Washer, Machine	8.20
Machine Tool Operation and Repair Occupations	
Machine-Tool Operator (Toolroom)	17.55
Tool and Die Maker	21.52
Material Handling and Packing Occupations	
Forklift Operator	14.73
Fuel Distribution System Operator	15.86
Material Coordinator	15.45
Material Expediter	15.45

Material Handling Laborer	12.72
Order Filler	11.90
Production Line Worker (Food Processing)	14.45
Shipping Packer	12.80
Shipping/Receiving Clerk	12.37
Stock Clerk (Shelf Stocker; Store Worker II)	14.47
Store Worker I	12.13
Tools and Parts Attendant	16.51
Warehouse Specialist	15.11
Mechanics and Maintenance and Repair Occupations	
Aircraft Mechanic	19.02
Aircraft Mechanic Helper	15.58
Aircraft Quality Control Inspector	19.69
Aircraft Servicer	17.03
Aircraft Worker	17.73
Appliance Mechanic	17.02
Bicycle Repairer	13.77
Cable Splicer	20.90
Carpenter, Maintenance	16.06
Carpet Layer	16.96
Electrician, Maintenance	19.88
Electronics Technician, Maintenance I	15.48
Electronics Technician, Maintenance II	18.66
Electronics Technician, Maintenance III	19.35
Fabric Worker	14.81
Fire Alarm System Mechanic	17.66
Fire Extinguisher Repairer	15.16
Fuel Distribution System Mechanic	18.24
General Maintenance Worker	15.42
Heating, Refrigeration and Air Conditioning Mechanic	16.58
Heavy Equipment Mechanic	17.32
Heavy Equipment Operator	17.08
Instrument Mechanic	17.66
Laborer	11.25
Locksmith	17.09
Machinery Maintenance Mechanic	18.15
Machinist, Maintenance	16.58
Maintenance Trades Helper	13.66
Millwright	19.64
Office Appliance Repairer	17.02
Painter, Aircraft	18.16
Painter, Maintenance	17.02
Pipefitter, Maintenance	18.93
Plumber, Maintenance	17.02
Pneudraulic Systems Mechanic	17.66
Rigger	18.24
Scale Mechanic	16.40
Sheet-Metal Worker, Maintenance	16.58
Small Engine Mechanic	15.42
Telecommunication Mechanic I	15.42
Telecommunication Mechanic II	17.12
Telephone Lineman	16.58
Welder, Combination, Maintenance	16.58
Well Driller	16.58
Woodcraft Worker	18.24
Woodworker	14.98
Miscellaneous Occupations	
Animal Caretaker	8.76
Carnival Equipment Operator	8.33
Carnival Equipment Repairer	8.66

Carnival Worker	7.29
Cashier	7.92
Desk Clerk	8.33
Embalmer	20.84
Lifeguard	8.10
Mortician	20.84
Park Attendant (Aide)	10.15
Photofinishing Worker (Photo Lab Tech., Darkroom Tech)	8.10
Recreation Specialist	14.42
Recycling Worker	10.54
Sales Clerk	8.10
School Crossing Guard (Crosswalk Attendant)	9.07
Sport Official	7.04
Survey Party Chief (Chief of Party)	13.61
Surveying Aide	7.41
Surveying Technician (Instr. Person/Surveyor Asst./Instr.)	11.32
Swimming Pool Operator	11.48
Vending Machine Attendant	10.20
Vending Machine Repairer	11.48
Vending Machine Repairer Helper	10.20
Personal Needs Occupations	
Child Care Attendant	7.90
Child Care Center Clerk	11.32
Chore Aid	8.53
Homemaker	10.70
Plant and System Operation Occupations	
Boiler Tender	19.56
Sewage Plant Operator	18.02
Stationary Engineer	19.56
Ventilation Equipment Tender	14.55
Water Treatment Plant Operator	17.27
Protective Service Occupations	
Alarm Monitor	13.84
Corrections Officer	16.48
Court Security Officer	18.84
Detention Officer	18.29
Firefighter	19.72
Guard I	9.51
Guard II	13.78
Police Officer	20.54
Stevedoring/Longshoremen Occupations	
Blocker and Bracer	16.29
Hatch Tender	16.29
Line Handler	16.29
Stevedore I	14.26
Stevedore II	15.36
Technical Occupations	
Air Traffic Control Specialist, Center (2)	28.96
Air Traffic Control Specialist, Station (2)	19.97
Air Traffic Control Specialist, Terminal (2)	21.99
Archeological Technician I	15.37
Archeological Technician II	17.20
Archeological Technician III	21.29
Cartographic Technician	20.12
Civil Engineering Technician	21.29
Computer Based Training (CBT) Specialist/ Instructor	22.97
Drafter I	11.59
Drafter II	14.17
Drafter III	17.60
Drafter IV	21.29

Engineering Technician I	15.50
Engineering Technician II	17.13
Engineering Technician III	19.24
Engineering Technician IV	23.21
Engineering Technician V	26.50
Engineering Technician VI	29.94
Environmental Technician	18.70
Flight Simulator/Instructor (Pilot)	24.95
Graphic Artist	20.08
Instructor	21.50
Laboratory Technician	15.66
Mathematical Technician	20.55
Paralegal/Legal Assistant I	16.78
Paralegal/Legal Assistant II	18.55
Paralegal/Legal Assistant III	22.68
Paralegal/Legal Assistant IV	27.43
Photooptics Technician	18.68
Technical Writer	24.90
Unexploded (UXO) Safety Escort	18.40
Unexploded (UXO) Sweep Personnel	18.40
Unexploded Ordnance (UXO) Technician I	18.40
Unexploded Ordnance (UXO) Technician II	22.27
Unexploded Ordnance (UXO) Technician III	26.69
Weather Observer, Combined Upper Air and Surface Programs (3)	17.23
Weather Observer, Senior (3)	19.15
Weather Observer, Upper Air (3)	17.23
Transportation/ Mobile Equipment Operation Occupations	
Bus Driver	15.09
Parking and Lot Attendant	10.80
Shuttle Bus Driver	14.12
Taxi Driver	10.05
Truckdriver, Heavy Truck	16.72
Truckdriver, Light Truck	13.53
Truckdriver, Medium Truck	14.10
Truckdriver, Tractor-Trailer	16.72

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 $2.56 per hour computed on the basis of all hours worked by service employees employed on the contract.

VACATION: 2 weeks paid vacation after 1 year of service with a contractor or successor; 3 weeks after 5 years, and 4 weeks after 15 years. Length of service includes the whole span of continuous service with the present contractor or successor, wherever employed, and with the predecessor contractors in the performance of similar work at the same Federal facility. (Reg. 29 CFR 4.173)

HOLIDAYS: A minimum of ten paid holidays per year: New Year's Day, Martin Luther King Jr.'s Birthday, Washington's Birthday, Memorial Day, Independence Day, Labor Day, Columbus Day, Veterans' Day, Thanksgiving Day, and Christmas Day. (A contractor may substitute for any of the named holidays another day off with pay in accordance with a plan communicated to the employees involved.) (See 29 CFR 4.174)

THE OCCUPATIONS WHICH HAVE PARENTHESES AFTER THEM RECEIVE THE FOLLOWING BENEFITS (as numbered):

1) Does not apply to employees employed in a bona fide executive, administrative, or professional capacity as defined and delineated in 29 CFR 541. (See CFR 4.156)
2) APPLICABLE TO AIR TRAFFIC CONTROLLERS ONLY - NIGHT DIFFERENTIAL: An employee is entitled to pay for all work performed between the hours of 6:00 P.M. and 6:00 A.M. at the rate of basic pay plus a night pay differential amounting to 10 percent of the rate of basic pay.
3) WEATHER OBSERVERS - NIGHT PAY & SUNDAY PAY: If you work at night as part of a regular tour of duty, you will earn a night differential and receive an additional 10% of basic pay for any hours worked between 6pm and 6am. If you are a full-time employed (40 hours a week) and Sunday is part of your regularly scheduled workweek, you are paid at your rate of basic pay plus a Sunday premium of 25% of your basic rate for each hour of Sunday work which is not overtime (i.e. occasional work on Sunday outside the normal tour of duty is considered overtime work).

HAZARDOUS PAY DIFFERENTIAL

An 8 percent differential is applicable to employees employed in a position that represents a high degree of hazard when working with or in close proximity to ordinance, explosives, and incendiary materials. This includes work such as screening, blending, dying, mixing, and pressing of sensitive ordance, explosives, and pyrotechnic compositions such as lead azide, black powder and photoflash powder. All dry-house activities involving propellants or explosives. Demilitarization, modification, renovation, demolition, and maintenance operations on sensitive ordnance, explosives and incendiary materials. All operations involving 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 ordance, (or employees possibly adjacent to) explosives and incendiary materials which involves potential injury such as laceration of hands, face, or arms of the employee engaged in the operation, irritation of the skin, minor burns and the like; minimal damage to immediate or adjacent work area or equipment being used. All operations involving, unloading, storage, and hauling of ordance, explosive, and incendiary ordnance material other than small arms ammunition.

These differentials are only applicable to work that has been specifically designated by the agency for ordance, explosives, and incendiary material differential pay.

**** UNIFORM ALLOWANCE ****

If employees are required to wear uniforms in the performance of this contract (either by the terms of the Government contract, by the employer, by the state or local law, etc.), the cost of furnishing such uniforms and maintaining (by laundering or dry cleaning) such uniforms is an expense that may not be borne by an employee where such cost reduces the hourly rate below that required by the wage determination. The Department of Labor will accept payment in accordance with the following standards as compliance:

The contractor or subcontractor is required to furnish all employees with an adequate number of uniforms without cost or to reimburse employees for the actual cost of the uniforms. In addition, where uniform cleaning and maintenance is made the responsibility of the employee, all contractors and subcontractors subject to this wage determination shall (in the absence of a bona fide collective bargaining agreement providing for a different amount, or the furnishing of contrary affirmative proof as to the actual cost), reimburse all employees for such cleaning and

maintenance at a rate of $3.35 per week (or $.67 cents per day). However, in those instances where the uniforms furnished are made of "wash and wear" materials, may be routinely washed and dried with other personal garments, and do not require any special treatment such as dry cleaning, daily washing, or commercial laundering in order to meet the cleanliness or appearance standards set by the terms of the Government contract, by the contractor, by law, or by the nature of the work, there is no requirement that employees be reimbursed for uniform maintenance costs.

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REQUEST FOR AUTHORIZATION OF ADDITIONAL CLASSIFICATION AND WAGE RATE {Standard Form 1444 (SF 1444)}

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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.

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REGISTER OF WAGE DETERMINATIONS UNDER THE SERVICE CONTRACT ACT By direction of the Secretary of Labor	U.S. DEPARTMENT OF LABOR EMPLOYMENT STANDARDS ADMINISTRATION WAGE AND HOUR DIVISION WASHINGTON D.C. 20210
William W.Gross Director — Division of Wage Determinations	Wage Determination No.: 1994-2302 Revision No.: 15 Date Of Last Revision: 12/09/2002

State: **Mississippi**

Area: **Mississippi Counties of** George, George, Hancock, Hancock, **Harrison**, Jackson, Jackson, Pearl River, Pearl River, Stone, Stone

Fringe Benefits Required Follow the Occupational Listing

OCCUPATION TITLE	MINIMUM WAGE RATE
Administrative Support and Clerical Occupations	
Accounting Clerk I	9.05
Accounting Clerk II	11.36
Accounting Clerk III	13.71
Accounting Clerk IV	16.77
Court Reporter	12.10
Dispatcher, Motor Vehicle	11.20
Document Preparation Clerk	9.26
Duplicating Machine Operator	9.26
Film/Tape Librarian	8.80
General Clerk I	7.45
General Clerk II	8.36
General Clerk III	9.19
General Clerk IV	13.67
Housing Referral Assistant	14.75
Key Entry Operator I	8.93
Key Entry Operator II	10.28
Messenger (Courier)	7.58
Order Clerk I	10.99
Order Clerk II	14.67
Personnel Assistant (Employment) I	11.14
Personnel Assistant (Employment) II	12.53
Personnel Assistant (Employment) III	13.40
Personnel Assistant (Employment) IV	15.04
Production Control Clerk	14.73
Rental Clerk	9.29
Scheduler, Maintenance	10.47
Secretary I	10.47
Secretary II	13.10
Secretary III	14.75
Secretary IV	16.05
Secretary V	17.78
Service Order Dispatcher	8.96
Stenographer I	8.18
Stenographer II	9.30
Supply Technician	16.05
Survey Worker (Interviewer)	11.00
Switchboard Operator-Receptionist	8.44
Test Examiner	13.10
Test Proctor	13.10
Travel Clerk I	8.51
Travel Clerk II	9.02

Travel Clerk III	9.43
Word Processor I	10.19
Word Processor II	11.45
Word Processor III	12.79
Automatic Data Processing Occupations	
Computer Data Librarian	8.35
Computer Operator I	10.14
Computer Operator II	12.44
Computer Operator III	14.52
Computer Operator IV	15.45
Computer Operator V	17.06
Computer Programmer I (1)	16.16
Computer Programmer II (1)	19.97
Computer Programmer III (1)	24.00
Computer Programmer IV (1)	27.61
Computer Systems Analyst I (1)	23.05
Computer Systems Analyst II (1)	25.26
Computer Systems Analyst III (1)	27.62
Peripheral Equipment Operator	11.81
Automotive Service Occupations	
Automotive Body Repairer, Fiberglass	15.42
Automotive Glass Installer	13.96
Automotive Worker	13.96
Electrician, Automotive	14.52
Mobile Equipment Servicer	12.79
Motor Equipment Metal Mechanic	15.09
Motor Equipment Metal Worker	13.96
Motor Vehicle Mechanic	16.10
Motor Vehicle Mechanic Helper	12.26
Motor Vehicle Upholstery Worker	13.38
Motor Vehicle Wrecker	13.96
Painter, Automotive	14.52
Radiator Repair Specialist	13.96
Tire Repairer	12.36
Transmission Repair Specialist	15.09
Food Preparation and Service Occupations	
Baker	11.09
Cook I	10.17
Cook II	11.09
Dishwasher	8.41
Food Service Worker	8.41
Meat Cutter	11.09
Waiter/Waitress	8.83
Furniture Maintenance and Repair Occupations	
Electrostatic Spray Painter	15.00
Furniture Handler	11.53
Furniture Refinisher	14.52
Furniture Refinisher Helper	12.26
Furniture Repairer, Minor	13.38
Upholsterer	14.52
General Services and Support Occupations	
Cleaner, Vehicles	8.41
Elevator Operator	8.41
Gardener	10.17
House Keeping Aid I	8.41
House Keeping Aid II	8.86
Janitor	8.86
Laborer, Grounds Maintenance	8.83
Maid or Houseman	7.94
Pest Controller	12.17

Refuse Collector	9.67
Tractor Operator	10.28
Window Cleaner	8.83
Health Occupations	
Dental Assistant	11.15
Emergency Medical Technician (EMT)/Paramedic/Ambulance Driver	11.48
Licensed Practical Nurse I	9.99
Licensed Practical Nurse II	11.22
Licensed Practical Nurse III	12.54
Medical Assistant	10.38
Medical Laboratory Technician	13.47
Medical Record Clerk	11.36
Medical Record Technician	12.93
Nursing Assistant I	8.10
Nursing Assistant II	8.30
Nursing Assistant III	10.17
Nursing Assistant IV	11.43
Pharmacy Technician	11.63
Phlebotomist	12.23
Registered Nurse I	16.36
Registered Nurse II	20.00
Registered Nurse II, Specialist	20.00
Registered Nurse III	21.21
Registered Nurse III, Anesthetist	24.21
Registered Nurse IV	29.01
Information and Arts Occupations	
Audiovisual Librarian	19.32
Exhibits Specialist I	16.53
Exhibits Specialist II	20.10
Exhibits Specialist III	25.61
Illustrator I	16.46
Illustrator II	20.10
Illustrator III	25.61
Librarian	17.46
Library Technician	11.00
Photographer I	11.36
Photographer II	13.07
Photographer III	15.89
Photographer IV	20.24
Photographer V	22.31
Laundry, Dry Cleaning, Pressing and Related Occupations	
Assembler	6.84
Counter Attendant	6.84
Dry Cleaner	7.55
Finisher, Flatwork, Machine	6.84
Presser, Hand	6.84
Presser, Machine, Drycleaning	6.84
Presser, Machine, Shirts	6.84
Presser, Machine, Wearing Apparel, Laundry	6.84
Sewing Machine Operator	8.72
Tailor	8.52
Washer, Machine	7.15
Machine Tool Operation and Repair Occupations	
Machine-Tool Operator (Toolroom)	14.52
Tool and Die Maker	16.72
Material Handling and Packing Occupations	
Forklift Operator	12.18
Fuel Distribution System Operator	13.24
Material Coordinator	13.69
Material Expediter	13.69

Material Handling Laborer	9.68
Order Filler	10.73
Production Line Worker (Food Processing)	12.42
Shipping Packer	11.95
Shipping/Receiving Clerk	11.09
Stock Clerk (Shelf Stocker; Store Worker II)	12.71
Store Worker I	10.90
Tools and Parts Attendant	12.58
Warehouse Specialist	12.58
Mechanics and Maintenance and Repair Occupations	
Aircraft Mechanic	17.91
Aircraft Mechanic Helper	14.55
Aircraft Quality Control Inspector	18.53
Aircraft Servicer	15.88
Aircraft Worker	16.57
Appliance Mechanic	14.52
Bicycle Repairer	12.36
Cable Splicer	17.14
Carpenter, Maintenance	14.52
Carpet Layer	14.15
Electrician, Maintenance	18.11
Electronics Technician, Maintenance I	14.15
Electronics Technician, Maintenance II	16.43
Electronics Technician, Maintenance III	17.85
Fabric Worker	13.65
Fire Alarm System Mechanic	15.16
Fire Extinguisher Repairer	13.13
Fuel Distribution System Mechanic	15.59
General Maintenance Worker	13.96
Heating, Refrigeration and Air Conditioning Mechanic	15.09
Heavy Equipment Mechanic	15.26
Heavy Equipment Operator	15.09
Instrument Mechanic	17.35
Laborer	10.21
Locksmith	14.52
Machinery Maintenance Mechanic	16.43
Machinist, Maintenance	15.16
Maintenance Trades Helper	12.58
Millwright	17.54
Office Appliance Repairer	14.66
Painter, Aircraft	14.66
Painter, Maintenance	14.52
Pipefitter, Maintenance	16.28
Plumber, Maintenance	15.34
Pneudraulic Systems Mechanic	15.16
Rigger	16.50
Scale Mechanic	14.15
Sheet-Metal Worker, Maintenance	15.20
Small Engine Mechanic	13.96
Telecommunication Mechanic I	17.89
Telecommunication Mechanic II	20.65
Telephone Lineman	17.93
Welder, Combination, Maintenance	16.05
Well Driller	15.16
Woodcraft Worker	15.16
Woodworker	12.87
Miscellaneous Occupations	
Animal Caretaker	9.26
Carnival Equipment Operator	9.75
Carnival Equipment Repairer	11.17

Carnival Worker	8.41
Cashier	7.31
Desk Clerk	8.14
Embalmer	16.57
Lifeguard	9.42
Mortician	17.93
Park Attendant (Aide)	11.84
Photofinishing Worker (Photo Lab Tech., Darkroom Tech)	8.50
Recreation Specialist	12.18
Recycling Worker	11.26
Sales Clerk	8.50
School Crossing Guard (Crosswalk Attendant)	9.68
Sport Official	8.50
Survey Party Chief (Chief of Party)	10.58
Surveying Aide	7.01
Surveying Technician (Instr. Person/Surveyor Asst./Instr.)	9.61
Swimming Pool Operator	11.55
Vending Machine Attendant	11.68
Vending Machine Repairer	13.28
Vending Machine Repairer Helper	11.68
Personal Needs Occupations	
Child Care Attendant	7.52
Child Care Center Clerk	9.95
Chore Aid	7.94
Homemaker	11.08
Plant and System Operation Occupations	
Boiler Tender	17.14
Sewage Plant Operator	14.66
Stationary Engineer	17.14
Ventilation Equipment Tender	12.58
Water Treatment Plant Operator	14.52
Protective Service Occupations	
Alarm Monitor	12.35
Corrections Officer	11.87
Court Security Officer	12.33
Detention Officer	12.21
Firefighter	12.89
Guard I	8.78
Guard II	13.94
Police Officer	14.75
Stevedoring/Longshoremen Occupations	
Blocker and Bracer	16.99
Hatch Tender	14.77
Line Handler	14.77
Stevedore I	16.28
Stevedore II	17.65
Technical Occupations	
Air Traffic Control Specialist, Center (2)	28.21
Air Traffic Control Specialist, Station (2)	19.46
Air Traffic Control Specialist, Terminal (2)	21.43
Archeological Technician I	15.11
Archeological Technician II	16.94
Archeological Technician III	20.94
Cartographic Technician	20.37
Civil Engineering Technician	14.65
Computer Based Training (CBT) Specialist/ Instructor	23.46
Drafter I	14.64
Drafter II	15.72
Drafter III	19.12
Drafter IV	24.35

Engineering Technician I	13.38
Engineering Technician II	15.52
Engineering Technician III	17.85
Engineering Technician IV	21.73
Engineering Technician V	27.67
Engineering Technician VI	30.49
Environmental Technician	18.22
Flight Simulator/Instructor (Pilot)	22.34
Graphic Artist	19.07
Instructor	19.65
Laboratory Technician	14.93
Mathematical Technician	16.76
Paralegal/Legal Assistant I	13.92
Paralegal/Legal Assistant II	17.06
Paralegal/Legal Assistant III	20.88
Paralegal/Legal Assistant IV	25.25
Photooptics Technician	16.56
Technical Writer	22.80
Unexploded (UXO) Safety Escort	17.93
Unexploded (UXO) Sweep Personnel	17.93
Unexploded Ordnance (UXO) Technician I	17.93
Unexploded Ordnance (UXO) Technician II	21.70
Unexploded Ordnance (UXO) Technician III	26.01
Weather Observer, Combined Upper Air and Surface Programs (3)	17.17
Weather Observer, Senior (3)	19.04
Weather Observer, Upper Air (3)	17.17
Transportation/ Mobile Equipment Operation Occupations	
Bus Driver	12.64
Parking and Lot Attendant	7.06
Shuttle Bus Driver	10.91
Taxi Driver	8.37
Truckdriver, Heavy Truck	13.59
Truckdriver, Light Truck	10.10
Truckdriver, Medium Truck	15.01
Truckdriver, Tractor-Trailer	13.59

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 $2.56 per hour computed on the basis of all hours worked by service employees employed on the contract.

VACATION: 2 weeks paid vacation after 1 year of service with a contractor or successor; 3 weeks after 5 years, and 4 weeks after 15 years. Length of service includes the whole span of continuous service with the present contractor or successor, wherever employed, and with the predecessor contractors in the performance of similar work at the same Federal facility. (Reg. 29 CFR 4.173)

HOLIDAYS: A minimum of ten paid holidays per year: New Year's Day, Martin Luther King Jr.'s Birthday, Washington's Birthday, Memorial Day, Independence Day, Labor Day, Columbus Day, Veterans' Day, Thanksgiving Day, and Christmas Day. (A contractor may substitute for any of the named holidays another day off with pay in accordance with a plan communicated to the employees involved.) (See 29 CFR 4.174)

THE OCCUPATIONS WHICH HAVE PARENTHESES AFTER THEM RECEIVE THE FOLLOWING BENEFITS (as numbered):

1) Does not apply to employees employed in a bona fide executive, administrative, or professional capacity as defined and delineated in 29 CFR 541. (See CFR 4.156)

2) APPLICABLE TO AIR TRAFFIC CONTROLLERS ONLY - NIGHT DIFFERENTIAL: An employee is entitled to pay for all work performed between the hours of 6:00 P.M. and 6:00 A.M. at the rate of basic pay plus a night pay differential amounting to 10 percent of the rate of basic pay.

3) WEATHER OBSERVERS - NIGHT PAY & SUNDAY PAY: If you work at night as part of a regular tour of duty, you will earn a night differential and receive an additional 10% of basic pay for any hours worked between 6pm and 6am. If you are a full-time employed (40 hours a week) and Sunday is part of your regularly scheduled workweek, you are paid at your rate of basic pay plus a Sunday premium of 25% of your basic rate for each hour of Sunday work which is not overtime (i.e. occasional work on Sunday outside the normal tour of duty is considered overtime work).

HAZARDOUS PAY DIFFERENTIAL

An 8 percent differential is applicable to employees employed in a position that represents a high degree of hazard when working with or in close proximity to ordinance, explosives, and incendiary materials. This includes work such as screening, blending, dying, mixing, and pressing of sensitive ordance, explosives, and pyrotechnic compositions such as lead azide, black powder and photoflash powder. All dry-house activities involving propellants or explosives. Demilitarization, modification, renovation, demolition, and maintenance operations on sensitive ordnance, explosives and incendiary materials. All operations involving 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 ordance, (or employees possibly adjacent to) explosives and incendiary materials which involves potential injury such as laceration of hands, face, or arms of the employee engaged in the operation, irritation of the skin, minor burns and the like; minimal damage to immediate or adjacent work area or equipment being used. All operations involving, unloading, storage, and hauling of ordance, explosive, and incendiary ordnance material other than small arms ammunition.

These differentials are only applicable to work that has been specifically designated by the agency for ordance, explosives, and incendiary material differential pay.

**** UNIFORM ALLOWANCE ****

If employees are required to wear uniforms in the performance of this contract (either by the terms of the Government contract, by the employer, by the state or local law, etc.), the cost of furnishing such uniforms and maintaining (by laundering or dry cleaning) such uniforms is an expense that may not be borne by an employee where such cost reduces the hourly rate below that required by the wage determination. The Department of Labor will accept payment in accordance with the following standards as compliance:

The contractor or subcontractor is required to furnish all employees with an adequate number of uniforms without cost or to reimburse employees for the actual cost of the uniforms. In addition, where uniform cleaning and maintenance is made the responsibility of the employee, all contractors and subcontractors subject to this wage determination shall (in the absence of a bona fide collective bargaining agreement providing for a different amount, or the furnishing of contrary affirmative proof as to the actual cost), reimburse all employees for such cleaning and

maintenance at a rate of $3.35 per week (or $.67 cents per day). However, in those instances where the uniforms furnished are made of "wash and wear" materials, may be routinely washed and dried with other personal garments, and do not require any special treatment such as dry cleaning, daily washing, or commercial laundering in order to meet the cleanliness or appearance standards set by the terms of the Government contract, by the contractor, by law, or by the nature of the work, there is no requirement that employees be reimbursed for uniform maintenance costs.

**** NOTES APPLYING TO THIS WAGE DETERMINATION ****

Source of Occupational Title and Descriptions:

The duties of employees under job titles listed are those described in the "Service Contract Act Directory of Occupations," Fourth Edition, January 1993, as amended by the Third Supplement, dated March 1997, unless otherwise indicated. This publication may be obtained from the Superintendent of Documents, at 202-783-3238, or by writing to the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Copies of specific job descriptions may also be obtained from the appropriate contracting officer.

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.

REGISTER OF WAGE DETERMINATIONS UNDER THE SERVICE CONTRACT ACT By direction of the Secretary of Labor	U.S. DEPARTMENT OF LABOR EMPLOYMENT STANDARDS ADMINISTRATION WAGE AND HOUR DIVISION WASHINGTON D.C. 20210
William W.Gross Director — Division of Wage Determinations	Wage Determination No.: 1994-2376 Revision No.: 16 Date Of Last Revision: 05/23/2002

State: **New York**

Area: New York Counties of Bronx, Kings, **New York**, Putnam, Queens, Richmond, Rockland,
Westchester

OCCUPATION NOTES:
Janitor: The rate for the Janitor occupation applies to Putnam, Rockland, and Weschester Counties only. See Wage Determination 1977-0225 for wage rates and fringe benefits for Bronx, Kings, New York, Queens, and Richmond Counties.

Refuse Collector: The rate for the Refuse Collector applies to Rockland County ONLY. See Wage Determination 1999-0321 for wage rates and fringe benefits for Bronx, Kings, New York, Putnam, Queens, Richmond, and Westchester Counties.

Fringe Benefits Required Follow the Occupational Listing

OCCUPATION TITLE	MINIMUM WAGE RATE
Administrative Support and Clerical Occupations	
Accounting Clerk I	11.75
Accounting Clerk II	14.66
Accounting Clerk III	16.28
Accounting Clerk IV	17.71
Court Reporter	17.00
Dispatcher, Motor Vehicle	18.97
Document Preparation Clerk	15.15
Duplicating Machine Operator	13.77
Film/Tape Librarian	15.22
General Clerk I	11.97
General Clerk II	12.11
General Clerk III	15.15
General Clerk IV	16.48
Housing Referral Assistant	19.03
Key Entry Operator I	12.23
Key Entry Operator II	13.02
Messenger (Courier)	11.97
Order Clerk I	14.05
Order Clerk II	18.55
Personnel Assistant (Employment) I	12.97
Personnel Assistant (Employment) II	15.05
Personnel Assistant (Employment) III	17.00
Personnel Assistant (Employment) IV	18.38
Production Control Clerk	18.38
Rental Clerk	15.92
Scheduler, Maintenance	15.54
Secretary I	16.14
Secretary II	19.18
Secretary III	19.92
Secretary IV	22.47
Secretary V	26.34
Service Order Dispatcher	17.47

Stenographer I	17.12
Stenographer II	19.29
Supply Technician	21.39
Survey Worker (Interviewer)	15.33
Switchboard Operator-Receptionist	14.26
Test Examiner	17.53
Test Proctor	17.53
Travel Clerk I	14.09
Travel Clerk II	15.27
Travel Clerk III	16.58
Word Processor I	13.85
Word Processor II	14.73
Word Processor III	18.12
Automatic Data Processing Occupations	
Computer Data Librarian	15.22
Computer Operator I	14.50
Computer Operator II	16.46
Computer Operator III	20.14
Computer Operator IV	25.25
Computer Operator V	25.60
Computer Programmer I (1)	21.55
Computer Programmer II (1)	26.30
Computer Programmer III (1)	27.62
Computer Programmer IV (1)	27.62
Computer Systems Analyst I (1)	27.62
Computer Systems Analyst II (1)	27.62
Computer Systems Analyst III (1)	27.62
Peripheral Equipment Operator	15.05
Automotive Service Occupations	
Automotive Body Repairer, Fiberglass	22.26
Automotive Glass Installer	22.63
Automotive Worker	22.63
Electrician, Automotive	23.56
Mobile Equipment Servicer	20.74
Motor Equipment Metal Mechanic	24.55
Motor Equipment Metal Worker	21.50
Motor Vehicle Mechanic	24.48
Motor Vehicle Mechanic Helper	19.79
Motor Vehicle Upholstery Worker	21.74
Motor Vehicle Wrecker	22.63
Painter, Automotive	23.56
Radiator Repair Specialist	22.63
Tire Repairer	18.22
Transmission Repair Specialist	24.55
Food Preparation and Service Occupations	
Baker	19.55
Cook I	17.97
Cook II	19.55
Dishwasher	14.67
Food Service Worker	14.67
Meat Cutter	19.55
Waiter/Waitress	15.50
Furniture Maintenance and Repair Occupations	
Electrostatic Spray Painter	20.13
Furniture Handler	15.30
Furniture Refinisher	20.13
Furniture Refinisher Helper	16.90
Furniture Repairer, Minor	18.51
Upholsterer	20.13

General Services and Support Occupations	
Cleaner, Vehicles	14.67
Elevator Operator	14.67
Gardener	17.97
House Keeping Aid I	13.98
House Keeping Aid II	14.82
Janitor	14.67
Laborer, Grounds Maintenance	15.50
Maid or Houseman	13.98
Pest Controller	18.75
Refuse Collector	14.67
Tractor Operator	17.13
Window Cleaner	15.50
Health Occupations	
Dental Assistant	11.48
Emergency Medical Technician (EMT)/Paramedic/Ambulance Driver	14.10
Licensed Practical Nurse I	14.35
Licensed Practical Nurse II	16.13
Licensed Practical Nurse III	18.12
Medical Assistant	12.82
Medical Laboratory Technician	12.98
Medical Record Clerk	12.98
Medical Record Technician	15.28
Nursing Assistant I	7.45
Nursing Assistant II	11.54
Nursing Assistant III	12.59
Nursing Assistant IV	15.45
Pharmacy Technician	12.79
Phlebotomist	11.50
Registered Nurse I	23.88
Registered Nurse II	27.99
Registered Nurse II, Specialist	27.99
Registered Nurse III	32.04
Registered Nurse III, Anesthetist	32.04
Registered Nurse IV	35.02
Information and Arts Occupations	
Audiovisual Librarian	21.88
Exhibits Specialist I	19.03
Exhibits Specialist II	20.21
Exhibits Specialist III	22.80
Illustrator I	16.55
Illustrator II	17.57
Illustrator III	19.83
Librarian	27.98
Library Technician	15.33
Photographer I	16.13
Photographer II	19.29
Photographer III	20.48
Photographer IV	23.12
Photographer V	27.96
Laundry, Dry Cleaning, Pressing and Related Occupations	
Assembler	8.69
Counter Attendant	8.69
Dry Cleaner	10.68
Finisher, Flatwork, Machine	8.69
Presser, Hand	8.69
Presser, Machine, Drycleaning	8.69
Presser, Machine, Shirts	8.69
Presser, Machine, Wearing Apparel, Laundry	8.69
Sewing Machine Operator	11.40

Tailor	13.57
Washer, Machine	9.60
Machine Tool Operation and Repair Occupations	
Machine-Tool Operator (Toolroom)	20.13
Tool and Die Maker	23.35
Material Handling and Packing Occupations	
Forklift Operator	16.24
Fuel Distribution System Operator	19.50
Material Coordinator	17.89
Material Expediter	17.89
Material Handling Laborer	15.80
Order Filler	14.16
Production Line Worker (Food Processing)	16.25
Shipping Packer	13.34
Shipping/Receiving Clerk	12.89
Stock Clerk (Shelf Stocker; Store Worker II)	14.24
Store Worker I	11.47
Tools and Parts Attendant	16.40
Warehouse Specialist	14.91
Mechanics and Maintenance and Repair Occupations	
Aircraft Mechanic	24.07
Aircraft Mechanic Helper	19.44
Aircraft Quality Control Inspector	25.00
Aircraft Servicer	21.29
Aircraft Worker	22.20
Appliance Mechanic	20.13
Bicycle Repairer	17.13
Cable Splicer	26.48
Carpenter, Maintenance	25.47
Carpet Layer	21.23
Electrician, Maintenance	25.75
Electronics Technician, Maintenance I	18.56
Electronics Technician, Maintenance II	25.47
Electronics Technician, Maintenance III	27.18
Fabric Worker	19.35
Fire Alarm System Mechanic	21.67
Fire Extinguisher Repairer	18.35
Fuel Distribution System Mechanic	23.02
General Maintenance Worker	18.98
Heating, Refrigeration and Air Conditioning Mechanic	20.93
Heavy Equipment Mechanic	21.10
Heavy Equipment Operator	26.48
Instrument Mechanic	24.07
Laborer	15.04
Locksmith	20.31
Machinery Maintenance Mechanic	23.45
Machinist, Maintenance	20.81
Maintenance Trades Helper	16.90
Millwright	20.93
Office Appliance Repairer	20.86
Painter, Aircraft	20.13
Painter, Maintenance	23.15
Pipefitter, Maintenance	29.73
Plumber, Maintenance	23.15
Pneudraulic Systems Mechanic	21.67
Rigger	20.93
Scale Mechanic	19.99
Sheet-Metal Worker, Maintenance	26.90
Small Engine Mechanic	19.30
Telecommunication Mechanic I	24.07

Telecommunication Mechanic II	28.03
Telephone Lineman	24.07
Welder, Combination, Maintenance	20.93
Well Driller	23.02
Woodcraft Worker	20.93
Woodworker	17.73
Miscellaneous Occupations	
Animal Caretaker	16.32
Carnival Equipment Operator	17.13
Carnival Equipment Repairer	17.97
Carnival Worker	14.67
Cashier	10.95
Desk Clerk	14.76
Embalmer	19.02
Lifeguard	11.94
Mortician	19.02
Park Attendant (Aide)	15.01
Photofinishing Worker (Photo Lab Tech., Darkroom Tech)	12.85
Recreation Specialist	18.61
Recycling Worker	17.13
Sales Clerk	11.94
School Crossing Guard (Crosswalk Attendant)	14.67
Sport Official	11.94
Survey Party Chief (Chief of Party)	17.62
Surveying Aide	11.53
Surveying Technician (Instr. Person/Surveyor Asst./Instr.)	15.80
Swimming Pool Operator	19.55
Vending Machine Attendant	14.42
Vending Machine Repairer	17.64
Vending Machine Repairer Helper	14.25
Personal Needs Occupations	
Child Care Attendant	13.42
Child Care Center Clerk	16.74
Chore Aid	12.67
Homemaker	18.59
Plant and System Operation Occupations	
Boiler Tender	24.88
Sewage Plant Operator	22.14
Stationary Engineer	22.62
Ventilation Equipment Tender	17.51
Water Treatment Plant Operator	20.13
Protective Service Occupations	
Alarm Monitor	14.87
Corrections Officer	22.50
Court Security Officer	23.99
Detention Officer	23.64
Firefighter	23.99
Guard I	10.59
Guard II	17.08
Police Officer	25.48
Stevedoring/Longshoremen Occupations	
Blocker and Bracer	18.56
Hatch Tender	18.56
Line Handler	18.56
Stevedore I	16.18
Stevedore II	17.60
Technical Occupations	
Air Traffic Control Specialist, Center (2)	29.93
Air Traffic Control Specialist, Station (2)	20.64
Air Traffic Control Specialist, Terminal (2)	22.73

Archeological Technician I	15.32
Archeological Technician II	17.14
Archeological Technician III	21.22
Cartographic Technician	20.10
Civil Engineering Technician	22.23
Computer Based Training (CBT) Specialist/ Instructor	25.36
Drafter I	15.19
Drafter II	16.70
Drafter III	19.98
Drafter IV	21.31
Engineering Technician I	14.01
Engineering Technician II	16.16
Engineering Technician III	19.83
Engineering Technician IV	21.01
Engineering Technician V	23.72
Engineering Technician VI	25.84
Environmental Technician	22.90
Flight Simulator/Instructor (Pilot)	27.63
Graphic Artist	27.28
Instructor	24.38
Laboratory Technician	19.60
Mathematical Technician	22.26
Paralegal/Legal Assistant I	18.69
Paralegal/Legal Assistant II	24.26
Paralegal/Legal Assistant III	29.71
Paralegal/Legal Assistant IV	35.91
Photooptics Technician	23.55
Technical Writer	28.90
Unexploded (UXO) Safety Escort	19.02
Unexploded (UXO) Sweep Personnel	19.02
Unexploded Ordnance (UXO) Technician I	19.02
Unexploded Ordnance (UXO) Technician II	23.01
Unexploded Ordnance (UXO) Technician III	27.58
Weather Observer, Combined Upper Air and Surface Programs (3)	22.06
Weather Observer, Senior (3)	24.50
Weather Observer, Upper Air (3)	22.06
Transportation/ Mobile Equipment Operation Occupations	
Bus Driver	16.09
Parking and Lot Attendant	10.97
Shuttle Bus Driver	14.76
Taxi Driver	14.83
Truckdriver, Heavy Truck	22.18
Truckdriver, Light Truck	15.89
Truckdriver, Medium Truck	17.37
Truckdriver, Tractor-Trailer	22.18

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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 4.174)

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1) Does not apply to employees employed in a bona fide executive, administrative, or professional capacity as defined and delineated in 29 CFR 541. (See CFR 4.156)
2) APPLICABLE TO AIR TRAFFIC CONTROLLERS ONLY - NIGHT DIFFERENTIAL: An employee is entitled to pay for all work performed between the hours of 6:00 P.M. and 6:00 A.M. at the rate of basic pay plus a night pay differential amounting to 10 percent of the rate of basic pay.
3) WEATHER OBSERVERS - NIGHT PAY & SUNDAY PAY: If you work at night as part of a regular tour of duty, you will earn a night differential and receive an additional 10% of basic pay for any hours worked between 6pm and 6am. If you are a full-time employed (40 hours a week) and Sunday is part of your regularly scheduled workweek, you are paid at your rate of basic pay plus a Sunday premium of 25% of your basic rate for each hour of Sunday work which is not overtime (i.e. occasional work on Sunday outside the normal tour of duty is considered overtime work).

HAZARDOUS PAY DIFFERENTIAL

An 8 percent differential is applicable to employees employed in a position that represents a high degree of hazard when working with or in close proximity to ordinance, explosives, and incendiary materials. This includes work such as screening, blending, dying, mixing, and pressing of sensitive ordance, explosives, and pyrotechnic compositions such as lead azide, black powder and photoflash powder. All dry-house activities involving propellants or explosives. Demilitarization, modification, renovation, demolition, and maintenance operations on sensitive ordnance, explosives and incendiary materials. All operations involving 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 ordance, (or employees possibly adjacent to) explosives and incendiary materials which involves potential injury such as laceration of hands, face, or arms of the employee engaged in the operation, irritation of the skin, minor burns and the like; minimal damage to immediate or adjacent work area or equipment being used. All operations involving, unloading, storage, and hauling of ordance, explosive, and incendiary ordnance material other than small arms ammunition.

These differentials are only applicable to work that has been specifically designated by the agency for ordance, explosives, and incendiary material differential pay.

**** UNIFORM ALLOWANCE ****

If employees are required to wear uniforms in the performance of this contract (either by the terms of the Government contract, by the employer, by the state or local law, etc.), the cost of furnishing such uniforms and maintaining (by laundering or dry cleaning) such uniforms is an expense that may not be borne by an employee where such cost reduces the hourly rate below that required by the wage determination. The Department of Labor will accept payment in accordance with the following standards as compliance:

The contractor or subcontractor is required to furnish all employees with an adequate number of uniforms without cost or to reimburse employees for the actual cost of the uniforms. In addition, where uniform cleaning and maintenance is made the responsibility of the employee, all contractors and subcontractors subject to this wage determination shall (in the absence of a bona fide collective bargaining agreement providing for a different amount, or the furnishing of contrary affirmative proof as to the actual cost), reimburse all employees for such cleaning and maintenance at a rate of $3.35 per week (or $.67 cents per day). However, in those instances where the uniforms furnished are made of "wash and wear" materials, may be routinely washed and dried with other personal garments, and do not require any special treatment such as dry cleaning, daily washing, or commercial laundering in order to meet the cleanliness or appearance standards set by the terms of the Government contract, by the contractor, by law, or by the nature of the work, there is no requirement that employees be reimbursed for uniform maintenance costs.

**** NOTES APPLYING TO THIS WAGE DETERMINATION ****

Source of Occupational Title and Descriptions:

The duties of employees under job titles listed are those described in the "Service Contract Act Directory of Occupations," Fourth Edition, January 1993, as amended by the Third Supplement, dated March 1997, unless otherwise indicated. This publication may be obtained from the Superintendent of Documents, at 202-783-3238, or by writing to the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Copies of specific job descriptions may also be obtained from the appropriate contracting officer.

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.

REGISTER OF WAGE DETERMINATIONS UNDER THE SERVICE CONTRACT ACT By direction of the Secretary of Labor	U.S. DEPARTMENT OF LABOR EMPLOYMENT STANDARDS ADMINISTRATION WAGE AND HOUR DIVISION WASHINGTON D.C. 20210
William W.Gross Director — Division of Wage Determinations	Wage Determination No.: 1994-2416 Revision No.: 17 Date Of Last Revision: 05/28/2002

State: **Ohio**

Area: Ohio Counties of Ashland, Ashtabula, Cuyahoga, Erie, Geauga, Huron, Lake, Lorain, Medina, Portage, Richland, Stark, Summit, Wayne

Fringe Benefits Required Follow the Occupational Listing

OCCUPATION TITLE	MINIMUM WAGE RATE
Administrative Support and Clerical Occupations	
Accounting Clerk I	9.09
Accounting Clerk II	11.57
Accounting Clerk III	12.97
Accounting Clerk IV	15.12
Court Reporter	16.67
Dispatcher, Motor Vehicle	13.17
Document Preparation Clerk	11.84
Duplicating Machine Operator	11.84
Film/Tape Librarian	11.52
General Clerk I	8.26
General Clerk II	9.39
General Clerk III	11.01
General Clerk IV	13.21
Housing Referral Assistant	16.69
Key Entry Operator I	9.08
Key Entry Operator II	10.90
Messenger (Courier)	8.17
Order Clerk I	10.88
Order Clerk II	12.93
Personnel Assistant (Employment) I	11.49
Personnel Assistant (Employment) II	12.91
Personnel Assistant (Employment) III	15.15
Personnel Assistant (Employment) IV	17.04
Production Control Clerk	15.16
Rental Clerk	11.52
Scheduler, Maintenance	12.97
Secretary I	12.97
Secretary II	14.93
Secretary III	16.69
Secretary IV	18.23
Secretary V	21.29
Service Order Dispatcher	11.52
Stenographer I	11.80
Stenographer II	12.97
Supply Technician	18.23
Survey Worker (Interviewer)	12.98
Switchboard Operator-Receptionist	11.42
Test Examiner	14.93
Test Proctor	14.93
Travel Clerk I	10.24
Travel Clerk II	10.98

Travel Clerk III	11.79
Word Processor I	11.07
Word Processor II	15.75
Word Processor III	17.17
Automatic Data Processing Occupations	
Computer Data Librarian	10.31
Computer Operator I	10.16
Computer Operator II	13.36
Computer Operator III	15.83
Computer Operator IV	18.92
Computer Operator V	20.96
Computer Programmer I (1)	16.82
Computer Programmer II (1)	18.80
Computer Programmer III (1)	23.86
Computer Programmer IV (1)	27.62
Computer Systems Analyst I (1)	25.92
Computer Systems Analyst II (1)	27.62
Computer Systems Analyst III (1)	27.62
Peripheral Equipment Operator	11.09
Automotive Service Occupations	
Automotive Body Repairer, Fiberglass	19.36
Automotive Glass Installer	18.02
Automotive Worker	18.02
Electrician, Automotive	18.73
Mobile Equipment Servicer	16.45
Motor Equipment Metal Mechanic	19.36
Motor Equipment Metal Worker	18.02
Motor Vehicle Mechanic	19.36
Motor Vehicle Mechanic Helper	15.71
Motor Vehicle Upholstery Worker	17.21
Motor Vehicle Wrecker	18.02
Painter, Automotive	18.73
Radiator Repair Specialist	18.02
Tire Repairer	15.89
Transmission Repair Specialist	19.36
Food Preparation and Service Occupations	
Baker	11.47
Cook I	10.46
Cook II	11.47
Dishwasher	8.58
Food Service Worker	8.44
Meat Cutter	12.84
Waiter/Waitress	9.04
Furniture Maintenance and Repair Occupations	
Electrostatic Spray Painter	18.73
Furniture Handler	13.89
Furniture Refinisher	18.73
Furniture Refinisher Helper	15.71
Furniture Repairer, Minor	17.22
Upholsterer	18.73
General Services and Support Occupations	
Cleaner, Vehicles	9.08
Elevator Operator	9.96
Gardener	11.51
House Keeping Aid I	8.25
House Keeping Aid II	9.49
Janitor	9.96
Laborer, Grounds Maintenance	9.99
Maid or Houseman	7.86
Pest Controller	13.22

Refuse Collector	9.08
Tractor Operator	11.30
Window Cleaner	10.68
Health Occupations	
Dental Assistant	13.40
Emergency Medical Technician (EMT)/Paramedic/Ambulance Driver	10.93
Licensed Practical Nurse I	11.02
Licensed Practical Nurse II	12.36
Licensed Practical Nurse III	13.83
Medical Assistant	10.88
Medical Laboratory Technician	12.36
Medical Record Clerk	11.40
Medical Record Technician	13.54
Nursing Assistant I	7.71
Nursing Assistant II	8.66
Nursing Assistant III	9.46
Nursing Assistant IV	10.61
Pharmacy Technician	12.11
Phlebotomist	12.36
Registered Nurse I	17.13
Registered Nurse II	20.97
Registered Nurse II, Specialist	20.97
Registered Nurse III	25.37
Registered Nurse III, Anesthetist	25.37
Registered Nurse IV	30.38
Information and Arts Occupations	
Audiovisual Librarian	16.56
Exhibits Specialist I	16.11
Exhibits Specialist II	18.75
Exhibits Specialist III	21.61
Illustrator I	16.32
Illustrator II	18.99
Illustrator III	21.88
Librarian	22.24
Library Technician	12.98
Photographer I	13.24
Photographer II	16.73
Photographer III	19.47
Photographer IV	22.44
Photographer V	26.18
Laundry, Dry Cleaning, Pressing and Related Occupations	
Assembler	7.65
Counter Attendant	7.65
Dry Cleaner	9.61
Finisher, Flatwork, Machine	7.65
Presser, Hand	7.65
Presser, Machine, Drycleaning	7.65
Presser, Machine, Shirts	7.65
Presser, Machine, Wearing Apparel, Laundry	7.65
Sewing Machine Operator	10.26
Tailor	10.91
Washer, Machine	8.30
Machine Tool Operation and Repair Occupations	
Machine-Tool Operator (Toolroom)	18.82
Tool and Die Maker	21.52
Material Handling and Packing Occupations	
Forklift Operator	14.79
Fuel Distribution System Operator	17.40
Material Coordinator	14.89
Material Expediter	14.89

Material Handling Laborer	12.07
Order Filler	11.02
Production Line Worker (Food Processing)	13.60
Shipping Packer	14.23
Shipping/Receiving Clerk	14.23
Stock Clerk (Shelf Stocker; Store Worker II)	15.67
Store Worker I	11.46
Tools and Parts Attendant	14.95
Warehouse Specialist	14.17
Mechanics and Maintenance and Repair Occupations	
Aircraft Mechanic	19.36
Aircraft Mechanic Helper	15.71
Aircraft Quality Control Inspector	20.07
Aircraft Servicer	17.21
Aircraft Worker	18.02
Appliance Mechanic	18.73
Bicycle Repairer	15.89
Cable Splicer	20.49
Carpenter, Maintenance	18.73
Carpet Layer	18.02
Electrician, Maintenance	21.69
Electronics Technician, Maintenance I	15.89
Electronics Technician, Maintenance II	20.26
Electronics Technician, Maintenance III	26.29
Fabric Worker	17.21
Fire Alarm System Mechanic	19.36
Fire Extinguisher Repairer	16.45
Fuel Distribution System Mechanic	17.89
General Maintenance Worker	18.02
Heating, Refrigeration and Air Conditioning Mechanic	19.36
Heavy Equipment Mechanic	19.36
Heavy Equipment Operator	19.79
Instrument Mechanic	19.36
Laborer	13.23
Locksmith	18.73
Machinery Maintenance Mechanic	20.75
Machinist, Maintenance	19.29
Maintenance Trades Helper	15.71
Millwright	22.26
Office Appliance Repairer	18.73
Painter, Aircraft	18.73
Painter, Maintenance	18.73
Pipefitter, Maintenance	22.65
Plumber, Maintenance	20.49
Pneudraulic Systems Mechanic	19.36
Rigger	19.36
Scale Mechanic	18.02
Sheet-Metal Worker, Maintenance	19.36
Small Engine Mechanic	18.02
Telecommunication Mechanic I	19.36
Telecommunication Mechanic II	20.06
Telephone Lineman	19.36
Welder, Combination, Maintenance	19.36
Well Driller	19.36
Woodcraft Worker	19.36
Woodworker	16.45
Miscellaneous Occupations	
Animal Caretaker	9.42
Carnival Equipment Operator	10.00
Carnival Equipment Repairer	10.46

Carnival Worker	8.25
Cashier	8.28
Desk Clerk	10.13
Embalmer	18.55
Lifeguard	9.57
Mortician	20.41
Park Attendant (Aide)	12.02
Photofinishing Worker (Photo Lab Tech., Darkroom Tech)	9.03
Recreation Specialist	14.04
Recycling Worker	11.00
Sales Clerk	9.06
School Crossing Guard (Crosswalk Attendant)	9.08
Sport Official	9.57
Survey Party Chief (Chief of Party)	15.23
Surveying Aide	8.78
Surveying Technician (Instr. Person/Surveyor Asst./Instr.)	13.19
Swimming Pool Operator	13.19
Vending Machine Attendant	11.50
Vending Machine Repairer	13.19
Vending Machine Repairer Helper	11.50
Personal Needs Occupations	
Child Care Attendant	10.13
Child Care Center Clerk	12.64
Chore Aid	7.78
Homemaker	14.24
Plant and System Operation Occupations	
Boiler Tender	19.36
Sewage Plant Operator	18.73
Stationary Engineer	19.36
Ventilation Equipment Tender	16.56
Water Treatment Plant Operator	18.73
Protective Service Occupations	
Alarm Monitor	12.34
Corrections Officer	17.95
Court Security Officer	17.95
Detention Officer	17.95
Firefighter	16.16
Guard I	8.58
Guard II	14.83
Police Officer	19.73
Stevedoring/Longshoremen Occupations	
Blocker and Bracer	16.72
Hatch Tender	16.72
Line Handler	16.72
Stevedore I	15.57
Stevedore II	16.95
Technical Occupations	
Air Traffic Control Specialist, Center (2)	28.65
Air Traffic Control Specialist, Station (2)	19.76
Air Traffic Control Specialist, Terminal (2)	21.77
Archeological Technician I	10.44
Archeological Technician II	11.68
Archeological Technician III	14.47
Cartographic Technician	19.84
Civil Engineering Technician	18.88
Computer Based Training (CBT) Specialist/ Instructor	25.20
Drafter I	11.13
Drafter II	13.85
Drafter III	17.49
Drafter IV	22.26

Engineering Technician I	13.89
Engineering Technician II	15.61
Engineering Technician III	18.04
Engineering Technician IV	20.98
Engineering Technician V	25.23
Engineering Technician VI	29.73
Environmental Technician	18.93
Flight Simulator/Instructor (Pilot)	25.49
Graphic Artist	20.49
Instructor	20.24
Laboratory Technician	15.06
Mathematical Technician	19.03
Paralegal/Legal Assistant I	14.93
Paralegal/Legal Assistant II	19.04
Paralegal/Legal Assistant III	23.31
Paralegal/Legal Assistant IV	28.19
Photooptics Technician	20.49
Technical Writer	20.67
Unexploded (UXO) Safety Escort	18.21
Unexploded (UXO) Sweep Personnel	18.21
Unexploded Ordnance (UXO) Technician I	18.21
Unexploded Ordnance (UXO) Technician II	22.04
Unexploded Ordnance (UXO) Technician III	26.41
Weather Observer, Combined Upper Air and Surface Programs (3)	17.91
Weather Observer, Senior (3)	21.41
Weather Observer, Upper Air (3)	17.91
Transportation/ Mobile Equipment Operation Occupations	
Bus Driver	16.10
Parking and Lot Attendant	7.86
Shuttle Bus Driver	12.62
Taxi Driver	9.52
Truckdriver, Heavy Truck	16.84
Truckdriver, Light Truck	12.62
Truckdriver, Medium Truck	16.10
Truckdriver, Tractor-Trailer	17.86

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 $2.56 per hour computed on the basis of all hours worked by service employees employed on the contract.

VACATION: 2 weeks paid vacation after 1 year of service with a contractor or successor; 3 weeks after 5 years, and 4 weeks after 15 years. Length of service includes the whole span of continuous service with the present contractor or successor, wherever employed, and with the predecessor contractors in the performance of similar work at the same Federal facility. (Reg. 29 CFR 4.173)

HOLIDAYS: A minimum of ten paid holidays per year: New Year's Day, Martin Luther King Jr.'s Birthday, Washington's Birthday, Memorial Day, Independence Day, Labor Day, Columbus Day, Veterans' Day, Thanksgiving Day, and Christmas Day. (A contractor may substitute for any of the named holidays another day off with pay in accordance with a plan communicated to the employees involved.) (See 29 CFR 4.174)

THE OCCUPATIONS WHICH HAVE PARENTHESES AFTER THEM RECEIVE THE FOLLOWING BENEFITS (as numbered):

1) Does not apply to employees employed in a bona fide executive, administrative, or professional capacity as defined and delineated in 29 CFR 541. (See CFR 4.156)

2) APPLICABLE TO AIR TRAFFIC CONTROLLERS ONLY - NIGHT DIFFERENTIAL: An employee is entitled to pay for all work performed between the hours of 6:00 P.M. and 6:00 A.M. at the rate of basic pay plus a night pay differential amounting to 10 percent of the rate of basic pay.

3) WEATHER OBSERVERS - NIGHT PAY & SUNDAY PAY: If you work at night as part of a regular tour of duty, you will earn a night differential and receive an additional 10% of basic pay for any hours worked between 6pm and 6am. If you are a full-time employed (40 hours a week) and Sunday is part of your regularly scheduled workweek, you are paid at your rate of basic pay plus a Sunday premium of 25% of your basic rate for each hour of Sunday work which is not overtime (i.e. occasional work on Sunday outside the normal tour of duty is considered overtime work).

HAZARDOUS PAY DIFFERENTIAL

An 8 percent differential is applicable to employees employed in a position that represents a high degree of hazard when working with or in close proximity to ordinance, explosives, and incendiary materials. This includes work such as screening, blending, dying, mixing, and pressing of sensitive ordance, explosives, and pyrotechnic compositions such as lead azide, black powder and photoflash powder. All dry-house activities involving propellants or explosives. Demilitarization, modification, renovation, demolition, and maintenance operations on sensitive ordnance, explosives and incendiary materials. All operations involving 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 ordance, (or employees possibly adjacent to) explosives and incendiary materials which involves potential injury such as laceration of hands, face, or arms of the employee engaged in the operation, irritation of the skin, minor burns and the like; minimal damage to immediate or adjacent work area or equipment being used. All operations involving, unloading, storage, and hauling of ordance, explosive, and incendiary ordnance material other than small arms ammunition.

These differentials are only applicable to work that has been specifically designated by the agency for ordance, explosives, and incendiary material differential pay.

**** UNIFORM ALLOWANCE ****

If employees are required to wear uniforms in the performance of this contract (either by the terms of the Government contract, by the employer, by the state or local law, etc.), the cost of furnishing such uniforms and maintaining (by laundering or dry cleaning) such uniforms is an expense that may not be borne by an employee where such cost reduces the hourly rate below that required by the wage determination. The Department of Labor will accept payment in accordance with the following standards as compliance:

The contractor or subcontractor is required to furnish all employees with an adequate number of uniforms without cost or to reimburse employees for the actual cost of the uniforms. In addition, where uniform cleaning and maintenance is made the responsibility of the employee, all contractors and subcontractors subject to this wage determination shall (in the absence of a bona fide collective bargaining agreement providing for a different amount, or the furnishing of contrary affirmative proof as to the actual cost), reimburse all employees for such cleaning and

maintenance at a rate of $3.35 per week (or $.67 cents per day). However, in those instances where the uniforms furnished are made of "wash and wear" materials, may be routinely washed and dried with other personal garments, and do not require any special treatment such as dry cleaning, daily washing, or commercial laundering in order to meet the cleanliness or appearance standards set by the terms of the Government contract, by the contractor, by law, or by the nature of the work, there is no requirement that employees be reimbursed for uniform maintenance costs.

**** NOTES APPLYING TO THIS WAGE DETERMINATION ****

Source of Occupational Title and Descriptions:

The duties of employees under job titles listed are those described in the "Service Contract Act Directory of Occupations," Fourth Edition, January 1993, as amended by the Third Supplement, dated March 1997, unless otherwise indicated. This publication may be obtained from the Superintendent of Documents, at 202-783-3238, or by writing to the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Copies of specific job descriptions may also be obtained from the appropriate contracting officer.

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.

REGISTER OF WAGE DETERMINATIONS UNDER THE SERVICE CONTRACT ACT By direction of the Secretary of Labor	U.S. DEPARTMENT OF LABOR EMPLOYMENT STANDARDS ADMINISTRATION WAGE AND HOUR DIVISION WASHINGTON D.C. 20210
William W.Gross Director — Division of Wage Determinations	Wage Determination No.: 1994-2512 Revision No.: 18 Date Of Last Revision: 02/28/2002

States: New Mexico, Texas

Area: New Mexico Counties of Chaves, Dona Ana, Eddy, Grant, Hidalgo, Lincoln, Luna, Otero, Sierra
Texas Counties of Culberson, El Paso, Hudspeth

Fringe Benefits Required Follow the Occupational Listing

OCCUPATION TITLE	MINIMUM WAGE RATE
Administrative Support and Clerical Occupations	
Accounting Clerk I	7.82
Accounting Clerk II	10.14
Accounting Clerk III	13.49
Accounting Clerk IV	15.70
Court Reporter	12.37
Dispatcher, Motor Vehicle	11.31
Document Preparation Clerk	9.48
Duplicating Machine Operator	9.48
Film/Tape Librarian	9.74
General Clerk I	6.56
General Clerk II	8.14
General Clerk III	8.90
General Clerk IV	9.06
Housing Referral Assistant	14.48
Key Entry Operator I	8.29
Key Entry Operator II	9.80
Messenger (Courier)	7.65
Order Clerk I	7.56
Order Clerk II	10.48
Personnel Assistant (Employment) I	8.93
Personnel Assistant (Employment) II	10.51
Personnel Assistant (Employment) III	12.12
Personnel Assistant (Employment) IV	12.33
Production Control Clerk	12.32
Rental Clerk	8.85
Scheduler, Maintenance	10.08
Secretary I	10.08
Secretary II	12.88
Secretary III	14.48
Secretary IV	17.11
Secretary V	18.21
Service Order Dispatcher	8.85
Stenographer I	10.79
Stenographer II	11.57
Supply Technician	17.06
Survey Worker (Interviewer)	11.62
Switchboard Operator-Receptionist	7.64
Test Examiner	12.88
Test Proctor	12.88
Travel Clerk I	9.02

Travel Clerk II	9.61
Travel Clerk III	10.23
Word Processor I	8.74
Word Processor II	9.80
Word Processor III	12.52
Automatic Data Processing Occupations	
Computer Data Librarian	7.41
Computer Operator I	8.13
Computer Operator II	12.03
Computer Operator III	13.94
Computer Operator IV	15.48
Computer Operator V	17.18
Computer Programmer I (1)	16.45
Computer Programmer II (1)	22.06
Computer Programmer III (1)	25.16
Computer Programmer IV (1)	27.62
Computer Systems Analyst I (1)	20.63
Computer Systems Analyst II (1)	24.75
Computer Systems Analyst III (1)	27.42
Peripheral Equipment Operator	9.04
Automotive Service Occupations	
Automotive Body Repairer, Fiberglass	15.63
Automotive Glass Installer	13.69
Automotive Worker	13.69
Electrician, Automotive	14.67
Mobile Equipment Servicer	11.73
Motor Equipment Metal Mechanic	15.63
Motor Equipment Metal Worker	13.69
Motor Vehicle Mechanic	16.49
Motor Vehicle Mechanic Helper	10.75
Motor Vehicle Upholstery Worker	12.70
Motor Vehicle Wrecker	13.69
Painter, Automotive	14.67
Radiator Repair Specialist	13.69
Tire Repairer	11.33
Transmission Repair Specialist	15.63
Food Preparation and Service Occupations	
Baker	10.41
Cook I	8.92
Cook II	10.41
Dishwasher	6.37
Food Service Worker	6.54
Meat Cutter	10.41
Waiter/Waitress	6.69
Furniture Maintenance and Repair Occupations	
Electrostatic Spray Painter	14.67
Furniture Handler	8.80
Furniture Refinisher	14.67
Furniture Refinisher Helper	10.75
Furniture Repairer, Minor	11.95
Upholsterer	14.67
General Services and Support Occupations	
Cleaner, Vehicles	6.32
Elevator Operator	7.06
Gardener	10.67
House Keeping Aid I	6.68
House Keeping Aid II	7.25
Janitor	7.06
Laborer, Grounds Maintenance	8.00

Maid or Houseman	6.35
Pest Controller	9.97
Refuse Collector	6.55
Tractor Operator	9.80
Window Cleaner	7.94
Health Occupations	
Dental Assistant	11.10
Emergency Medical Technician (EMT)/Paramedic/Ambulance Driver	12.30
Licensed Practical Nurse I	11.02
Licensed Practical Nurse II	12.36
Licensed Practical Nurse III	13.83
Medical Assistant	10.35
Medical Laboratory Technician	12.29
Medical Record Clerk	9.77
Medical Record Technician	13.54
Nursing Assistant I	7.10
Nursing Assistant II	7.98
Nursing Assistant III	8.71
Nursing Assistant IV	9.77
Pharmacy Technician	12.19
Phlebotomist	12.29
Registered Nurse I	16.62
Registered Nurse II	20.35
Registered Nurse II, Specialist	20.35
Registered Nurse III	24.62
Registered Nurse III, Anesthetist	24.62
Registered Nurse IV	29.49
Information and Arts Occupations	
Audiovisual Librarian	19.00
Exhibits Specialist I	19.15
Exhibits Specialist II	23.08
Exhibits Specialist III	26.14
Illustrator I	19.15
Illustrator II	23.08
Illustrator III	26.14
Librarian	20.23
Library Technician	11.31
Photographer I	11.81
Photographer II	15.14
Photographer III	18.93
Photographer IV	22.50
Photographer V	25.66
Laundry, Dry Cleaning, Pressing and Related Occupations	
Assembler	6.61
Counter Attendant	6.61
Dry Cleaner	7.55
Finisher, Flatwork, Machine	6.61
Presser, Hand	6.61
Presser, Machine, Drycleaning	6.61
Presser, Machine, Shirts	6.61
Presser, Machine, Wearing Apparel, Laundry	6.61
Sewing Machine Operator	8.11
Tailor	8.63
Washer, Machine	7.06
Machine Tool Operation and Repair Occupations	
Machine-Tool Operator (Toolroom)	14.67
Tool and Die Maker	18.42
Material Handling and Packing Occupations	
Forklift Operator	10.39
Fuel Distribution System Operator	11.73

Material Coordinator	12.20
Material Expediter	12.20
Material Handling Laborer	7.64
Order Filler	10.19
Production Line Worker (Food Processing)	10.86
Shipping Packer	9.49
Shipping/Receiving Clerk	9.49
Stock Clerk (Shelf Stocker; Store Worker II)	10.04
Store Worker I	8.54
Tools and Parts Attendant	10.86
Warehouse Specialist	10.86
Mechanics and Maintenance and Repair Occupations	
Aircraft Mechanic	16.88
Aircraft Mechanic Helper	11.61
Aircraft Quality Control Inspector	17.95
Aircraft Servicer	13.72
Aircraft Worker	14.79
Appliance Mechanic	14.67
Bicycle Repairer	11.33
Cable Splicer	17.19
Carpenter, Maintenance	14.67
Carpet Layer	13.69
Electrician, Maintenance	15.67
Electronics Technician, Maintenance I	15.24
Electronics Technician, Maintenance II	18.72
Electronics Technician, Maintenance III	19.92
Fabric Worker	12.70
Fire Alarm System Mechanic	15.63
Fire Extinguisher Repairer	11.73
Fuel Distribution System Mechanic	15.63
General Maintenance Worker	13.69
Heating, Refrigeration and Air Conditioning Mechanic	15.63
Heavy Equipment Mechanic	15.63
Heavy Equipment Operator	15.63
Instrument Mechanic	15.63
Laborer	7.64
Locksmith	14.67
Machinery Maintenance Mechanic	15.63
Machinist, Maintenance	15.98
Maintenance Trades Helper	10.75
Millwright	15.63
Office Appliance Repairer	14.67
Painter, Aircraft	14.67
Painter, Maintenance	14.67
Pipefitter, Maintenance	15.63
Plumber, Maintenance	14.67
Pneudraulic Systems Mechanic	15.63
Rigger	15.63
Scale Mechanic	13.69
Sheet-Metal Worker, Maintenance	15.63
Small Engine Mechanic	13.76
Telecommunication Mechanic I	17.19
Telecommunication Mechanic II	18.28
Telephone Lineman	15.63
Welder, Combination, Maintenance	15.63
Well Driller	15.63
Woodcraft Worker	15.63
Woodworker	11.73
Miscellaneous Occupations	
Animal Caretaker	8.02

Carnival Equipment Operator	8.45
Carnival Equipment Repairer	9.21
Carnival Worker	6.14
Cashier	6.75
Desk Clerk	9.41
Embalmer	17.93
Lifeguard	9.42
Mortician	17.93
Park Attendant (Aide)	11.84
Photofinishing Worker (Photo Lab Tech., Darkroom Tech)	7.49
Recreation Specialist	11.65
Recycling Worker	9.01
Sales Clerk	8.10
School Crossing Guard (Crosswalk Attendant)	6.37
Sport Official	8.24
Survey Party Chief (Chief of Party)	13.04
Surveying Aide	9.03
Surveying Technician (Instr. Person/Surveyor Asst./Instr.)	10.65
Swimming Pool Operator	10.77
Vending Machine Attendant	8.47
Vending Machine Repairer	10.77
Vending Machine Repairer Helper	8.47
Personal Needs Occupations	
Child Care Attendant	8.41
Child Care Center Clerk	10.49
Chore Aid	5.83
Homemaker	12.70
Plant and System Operation Occupations	
Boiler Tender	15.63
Sewage Plant Operator	14.67
Stationary Engineer	15.63
Ventilation Equipment Tender	10.75
Water Treatment Plant Operator	14.67
Protective Service Occupations	
Alarm Monitor	12.33
Corrections Officer	17.48
Court Security Officer	17.48
Detention Officer	17.48
Firefighter	18.03
Guard I	6.00
Guard II	9.44
Police Officer	18.07
Stevedoring/Longshoremen Occupations	
Blocker and Bracer	13.82
Hatch Tender	13.82
Line Handler	13.82
Stevedore I	13.46
Stevedore II	16.46
Technical Occupations	
Air Traffic Control Specialist, Center (2)	28.21
Air Traffic Control Specialist, Station (2)	19.46
Air Traffic Control Specialist, Terminal (2)	21.43
Archeological Technician I	17.29
Archeological Technician II	19.33
Archeological Technician III	23.95
Cartographic Technician	20.76
Civil Engineering Technician	18.93
Computer Based Training (CBT) Specialist/ Instructor	21.41
Drafter I	13.16

Drafter II	15.41
Drafter III	19.99
Drafter IV	26.25
Engineering Technician I	11.06
Engineering Technician II	14.42
Engineering Technician III	18.05
Engineering Technician IV	22.22
Engineering Technician V	26.15
Engineering Technician VI	29.80
Environmental Technician	18.11
Flight Simulator/Instructor (Pilot)	24.75
Graphic Artist	19.52
Instructor	18.85
Laboratory Technician	15.08
Mathematical Technician	22.64
Paralegal/Legal Assistant I	14.31
Paralegal/Legal Assistant II	19.00
Paralegal/Legal Assistant III	20.91
Paralegal/Legal Assistant IV	28.11
Photooptics Technician	18.93
Technical Writer	28.84
Unexploded (UXO) Safety Escort	17.93
Unexploded (UXO) Sweep Personnel	17.93
Unexploded Ordnance (UXO) Technician I	17.93
Unexploded Ordnance (UXO) Technician II	21.70
Unexploded Ordnance (UXO) Technician III	26.01
Weather Observer, Combined Upper Air and Surface Programs (3)	16.08
Weather Observer, Senior (3)	18.15
Weather Observer, Upper Air (3)	16.08
Transportation/ Mobile Equipment Operation Occupations	
Bus Driver	11.90
Parking and Lot Attendant	6.78
Shuttle Bus Driver	10.30
Taxi Driver	9.55
Truckdriver, Heavy Truck	13.90
Truckdriver, Light Truck	10.40
Truckdriver, Medium Truck	11.91
Truckdriver, Tractor-Trailer	13.90

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 $2.56 per hour computed on the basis of all hours worked by service employees employed on the contract.

VACATION: 2 weeks paid vacation after 1 year of service with a contractor or successor; 3 weeks after 5 years, and 4 weeks after 15 years. Length of service includes the whole span of continuous service with the present contractor or successor, wherever employed, and with the predecessor contractors in the performance of similar work at the same Federal facility. (Reg. 29 CFR 4.173)

HOLIDAYS: A minimum of ten paid holidays per year: New Year's Day, Martin Luther King Jr.'s Birthday, Washington's Birthday, Memorial Day, Independence Day, Labor Day, Columbus Day, Veterans' Day, Thanksgiving Day, and Christmas Day. (A contractor may substitute for any of the named holidays another day off with pay in accordance with a plan communicated to the employees involved.) (See 29 CFR 4.174)

THE OCCUPATIONS WHICH HAVE PARENTHESES AFTER THEM RECEIVE THE FOLLOWING BENEFITS (as numbered):

1) Does not apply to employees employed in a bona fide executive, administrative, or professional capacity as defined and delineated in 29 CFR 541. (See CFR 4.156)

2) APPLICABLE TO AIR TRAFFIC CONTROLLERS ONLY - NIGHT DIFFERENTIAL: An employee is entitled to pay for all work performed between the hours of 6:00 P.M. and 6:00 A.M. at the rate of basic pay plus a night pay differential amounting to 10 percent of the rate of basic pay.

3) WEATHER OBSERVERS - NIGHT PAY & SUNDAY PAY: If you work at night as part of a regular tour of duty, you will earn a night differential and receive an additional 10% of basic pay for any hours worked between 6pm and 6am. If you are a full-time employed (40 hours a week) and Sunday is part of your regularly scheduled workweek, you are paid at your rate of basic pay plus a Sunday premium of 25% of your basic rate for each hour of Sunday work which is not overtime (i.e. occasional work on Sunday outside the normal tour of duty is considered overtime work).

HAZARDOUS PAY DIFFERENTIAL

An 8 percent differential is applicable to employees employed in a position that represents a high degree of hazard when working with or in close proximity to ordinance, explosives, and incendiary materials. This includes work such as screening, blending, dying, mixing, and pressing of sensitive ordance, explosives, and pyrotechnic compositions such as lead azide, black powder and photoflash powder. All dry-house activities involving propellants or explosives. Demilitarization, modification, renovation, demolition, and maintenance operations on sensitive ordnance, explosives and incendiary materials. All operations involving 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 ordance, (or employees possibly adjacent to) explosives and incendiary materials which involves potential injury such as laceration of hands, face, or arms of the employee engaged in the operation, irritation of the skin, minor burns and the like; minimal damage to immediate or adjacent work area or equipment being used. All operations involving, unloading, storage, and hauling of ordance, explosive, and incendiary ordnance material other than small arms ammunition.

These differentials are only applicable to work that has been specifically designated by the agency for ordance, explosives, and incendiary material differential pay.

**** UNIFORM ALLOWANCE ****

If employees are required to wear uniforms in the performance of this contract (either by the terms of the Government contract, by the employer, by the state or local law, etc.), the cost of furnishing such uniforms and maintaining (by laundering or dry cleaning) such uniforms is an expense that may not be borne by an employee where such cost reduces the hourly rate below that required by the wage determination. The Department of Labor will accept payment in accordance with the following standards as compliance:

The contractor or subcontractor is required to furnish all employees with an adequate number of uniforms without cost or to reimburse employees for the actual cost of the uniforms. In addition, where uniform cleaning and maintenance is made the responsibility of the employee, all contractors and subcontractors subject to this wage determination shall (in the absence of a bona fide collective bargaining agreement providing for a different amount, or the furnishing of contrary affirmative

proof as to the actual cost), reimburse all employees for such cleaning and maintenance at a rate of $3.35 per week (or $.67 cents per day). However, in those instances where the uniforms furnished are made of "wash and wear" materials, may be routinely washed and dried with other personal garments, and do not require any special treatment such as dry cleaning, daily washing, or commercial laundering in order to meet the cleanliness or appearance standards set by the terms of the Government contract, by the contractor, by law, or by the nature of the work, there is no requirement that employees be reimbursed for uniform maintenance costs.

**** NOTES APPLYING TO THIS WAGE DETERMINATION ****

Source of Occupational Title and Descriptions:

The duties of employees under job titles listed are those described in the "Service Contract Act Directory of Occupations," Fourth Edition, January 1993, as amended by the Third Supplement, dated March 1997, unless otherwise indicated. This publication may be obtained from the Superintendent of Documents, at 202-783-3238, or by writing to the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Copies of specific job descriptions may also be obtained from the appropriate contracting officer.

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.

REGISTER OF WAGE DETERMINATIONS UNDER THE SERVICE CONTRACT ACT By direction of the Secretary of Labor	U.S. DEPARTMENT OF LABOR EMPLOYMENT STANDARDS ADMINISTRATION WAGE AND HOUR DIVISION WASHINGTON D.C. 20210
William W.Gross Director Division of Wage Determinations	Wage Determination No.: 1994-2516 Revision No.: 20 Date Of Last Revision: 12/11/2002

State: Texas

Area: Texas Counties of Austin, Brazoria, Chambers, Colorado, Fort Bend, Galveston, Grimes, Harris, Houston, Jackson, Lavaca, Liberty, Madison, Matagorda, Montgomery, San Jacinto, Trinity, Walker, Waller, Washington, Wharton

Fringe Benefits Required Follow the Occupational Listing

OCCUPATION TITLE	MINIMUM WAGE RATE
Administrative Support and Clerical Occupations	
Accounting Clerk I	11.45
Accounting Clerk II	11.56
Accounting Clerk III	13.47
Accounting Clerk IV	15.29
Court Reporter	15.28
Dispatcher, Motor Vehicle	14.00
Document Preparation Clerk	11.66
Duplicating Machine Operator	10.60
Film/Tape Librarian	11.50
General Clerk I	8.55
General Clerk II	9.27
General Clerk III	12.01
General Clerk IV	13.78
Housing Referral Assistant	17.20
Key Entry Operator I	10.63
Key Entry Operator II	13.59
Messenger (Courier)	8.97
Order Clerk I	12.51
Order Clerk II	12.97
Personnel Assistant (Employment) I	11.92
Personnel Assistant (Employment) II	12.97
Personnel Assistant (Employment) III	16.50
Personnel Assistant (Employment) IV	17.63
Production Control Clerk	16.61
Rental Clerk	13.04
Scheduler, Maintenance	13.56
Secretary I	13.56
Secretary II	15.99
Secretary III	17.46
Secretary IV	20.52
Secretary V	25.36
Service Order Dispatcher	13.30
Stenographer I	10.96
Stenographer II	13.04
Supply Technician	20.52
Survey Worker (Interviewer)	12.96
Switchboard Operator-Receptionist	10.65
Test Examiner	15.99
Test Proctor	15.99

Travel Clerk I	11.09
Travel Clerk II	11.95
Travel Clerk III	12.79
Word Processor I	10.41
Word Processor II	13.04
Word Processor III	16.27
Automatic Data Processing Occupations	
Computer Data Librarian	10.89
Computer Operator I	11.43
Computer Operator II	13.86
Computer Operator III	15.74
Computer Operator IV	21.44
Computer Operator V	22.38
Computer Programmer I (1)	19.99
Computer Programmer II (1)	22.16
Computer Programmer III (1)	27.02
Computer Programmer IV (1)	27.62
Computer Systems Analyst I (1)	23.36
Computer Systems Analyst II (1)	27.62
Computer Systems Analyst III (1)	27.62
Peripheral Equipment Operator	12.36
Automotive Service Occupations	
Automotive Body Repairer, Fiberglass	19.33
Automotive Glass Installer	18.05
Automotive Worker	19.15
Electrician, Automotive	18.87
Mobile Equipment Servicer	16.32
Motor Equipment Metal Mechanic	20.96
Motor Equipment Metal Worker	19.15
Motor Vehicle Mechanic	20.43
Motor Vehicle Mechanic Helper	15.39
Motor Vehicle Upholstery Worker	18.17
Motor Vehicle Wrecker	19.15
Painter, Automotive	18.87
Radiator Repair Specialist	20.96
Tire Repairer	14.40
Transmission Repair Specialist	20.96
Food Preparation and Service Occupations	
Baker	8.49
Cook I	8.19
Cook II	8.83
Dishwasher	6.51
Food Service Worker	6.85
Meat Cutter	10.30
Waiter/Waitress	6.21
Furniture Maintenance and Repair Occupations	
Electrostatic Spray Painter	16.65
Furniture Handler	11.74
Furniture Refinisher	11.62
Furniture Refinisher Helper	13.74
Furniture Repairer, Minor	15.29
Upholsterer	16.65
General Services and Support Occupations	
Cleaner, Vehicles	6.85
Elevator Operator	6.85
Gardener	9.34
House Keeping Aid I	6.36
House Keeping Aid II	6.46
Janitor	6.85
Laborer, Grounds Maintenance	7.48

Maid or Houseman	6.36
Pest Controller	9.75
Refuse Collector	6.85
Tractor Operator	8.78
Window Cleaner	7.48
Health Occupations	
Dental Assistant	11.75
Emergency Medical Technician (EMT)/Paramedic/Ambulance Driver	11.75
Licensed Practical Nurse I	11.84
Licensed Practical Nurse II	13.30
Licensed Practical Nurse III	14.86
Medical Assistant	11.00
Medical Laboratory Technician	13.30
Medical Record Clerk	12.09
Medical Record Technician	14.56
Nursing Assistant I	7.08
Nursing Assistant II	9.82
Nursing Assistant III	10.62
Nursing Assistant IV	12.40
Pharmacy Technician	13.10
Phlebotomist	13.30
Registered Nurse I	18.41
Registered Nurse II	22.68
Registered Nurse II, Specialist	24.10
Registered Nurse III	28.52
Registered Nurse III, Anesthetist	28.52
Registered Nurse IV	32.67
Information and Arts Occupations	
Audiovisual Librarian	17.14
Exhibits Specialist I	19.15
Exhibits Specialist II	24.55
Exhibits Specialist III	28.72
Illustrator I	17.60
Illustrator II	22.56
Illustrator III	26.40
Librarian	21.17
Library Technician	12.96
Photographer I	13.93
Photographer II	17.60
Photographer III	22.56
Photographer IV	26.40
Photographer V	30.06
Laundry, Dry Cleaning, Pressing and Related Occupations	
Assembler	7.68
Counter Attendant	7.68
Dry Cleaner	8.99
Finisher, Flatwork, Machine	7.68
Presser, Hand	7.68
Presser, Machine, Drycleaning	7.68
Presser, Machine, Shirts	7.68
Presser, Machine, Wearing Apparel, Laundry	7.68
Sewing Machine Operator	9.53
Tailor	10.26
Washer, Machine	8.42
Machine Tool Operation and Repair Occupations	
Machine-Tool Operator (Toolroom)	16.65
Tool and Die Maker	19.20
Material Handling and Packing Occupations	
Forklift Operator	12.23
Fuel Distribution System Operator	16.33

Material Coordinator	16.62
Material Expediter	16.04
Material Handling Laborer	11.72
Order Filler	10.40
Production Line Worker (Food Processing)	12.23
Shipping Packer	12.22
Shipping/Receiving Clerk	11.56
Stock Clerk (Shelf Stocker; Store Worker II)	12.42
Store Worker I	9.51
Tools and Parts Attendant	13.58
Warehouse Specialist	11.70
Mechanics and Maintenance and Repair Occupations	
Aircraft Mechanic	19.17
Aircraft Mechanic Helper	14.94
Aircraft Quality Control Inspector	20.02
Aircraft Servicer	16.62
Aircraft Worker	17.51
Appliance Mechanic	16.65
Bicycle Repairer	13.91
Cable Splicer	17.57
Carpenter, Maintenance	17.01
Carpet Layer	15.92
Electrician, Maintenance	21.13
Electronics Technician, Maintenance I	13.36
Electronics Technician, Maintenance II	19.02
Electronics Technician, Maintenance III	22.33
Fabric Worker	15.00
Fire Alarm System Mechanic	17.43
Fire Extinguisher Repairer	14.40
Fuel Distribution System Mechanic	17.43
General Maintenance Worker	15.46
Heating, Refrigeration and Air Conditioning Mechanic	17.43
Heavy Equipment Mechanic	17.43
Heavy Equipment Operator	17.43
Instrument Mechanic	17.43
Laborer	8.02
Locksmith	16.65
Machinery Maintenance Mechanic	18.42
Machinist, Maintenance	20.16
Maintenance Trades Helper	13.58
Millwright	17.43
Office Appliance Repairer	16.65
Painter, Aircraft	16.65
Painter, Maintenance	16.65
Pipefitter, Maintenance	19.33
Plumber, Maintenance	17.15
Pneudraulic Systems Mechanic	17.43
Rigger	17.43
Scale Mechanic	15.92
Sheet-Metal Worker, Maintenance	17.43
Small Engine Mechanic	15.92
Telecommunication Mechanic I	17.43
Telecommunication Mechanic II	18.20
Telephone Lineman	17.43
Welder, Combination, Maintenance	17.43
Well Driller	17.43
Woodcraft Worker	17.43
Woodworker	9.12

Miscellaneous Occupations	
Animal Caretaker	7.44
Carnival Equipment Operator	8.88
Carnival Equipment Repairer	9.34
Carnival Worker	6.85
Cashier	7.89
Desk Clerk	9.68
Embalmer	17.81
Lifeguard	10.29
Mortician	19.59
Park Attendant (Aide)	12.92
Photofinishing Worker (Photo Lab Tech., Darkroom Tech)	8.62
Recreation Specialist	13.40
Recycling Worker	10.11
Sales Clerk	10.30
School Crossing Guard (Crosswalk Attendant)	6.85
Sport Official	8.62
Survey Party Chief (Chief of Party)	16.22
Surveying Aide	11.10
Surveying Technician (Instr. Person/Surveyor Asst./Instr.)	14.03
Swimming Pool Operator	11.84
Vending Machine Attendant	9.86
Vending Machine Repairer	11.84
Vending Machine Repairer Helper	10.11
Personal Needs Occupations	
Child Care Attendant	9.68
Child Care Center Clerk	12.06
Chore Aid	6.13
Homemaker	15.41
Plant and System Operation Occupations	
Boiler Tender	19.18
Sewage Plant Operator	17.00
Stationary Engineer	19.18
Ventilation Equipment Tender	13.58
Water Treatment Plant Operator	16.65
Protective Service Occupations	
Alarm Monitor	12.43
Corrections Officer	18.04
Court Security Officer	18.04
Detention Officer	18.04
Firefighter	17.30
Guard I	9.11
Guard II	17.90
Police Officer	19.38
Stevedoring/Longshoremen Occupations	
Blocker and Bracer	15.13
Hatch Tender	15.13
Line Handler	15.13
Stevedore I	13.63
Stevedore II	15.01
Technical Occupations	
Air Traffic Control Specialist, Center (2)	30.81
Air Traffic Control Specialist, Station (2)	21.24
Air Traffic Control Specialist, Terminal (2)	23.39
Archeological Technician I	19.34
Archeological Technician II	21.66
Archeological Technician III	26.79
Cartographic Technician	24.63
Civil Engineering Technician	22.56

Computer Based Training (CBT) Specialist/ Instructor	23.36
Drafter I	15.37
Drafter II	15.85
Drafter III	20.90
Drafter IV	26.79
Engineering Technician I	14.00
Engineering Technician II	17.40
Engineering Technician III	20.25
Engineering Technician IV	25.71
Engineering Technician V	33.57
Engineering Technician VI	38.16
Environmental Technician	22.51
Flight Simulator/Instructor (Pilot)	29.50
Graphic Artist	21.01
Instructor	19.88
Laboratory Technician	14.85
Mathematical Technician	28.04
Paralegal/Legal Assistant I	16.69
Paralegal/Legal Assistant II	20.05
Paralegal/Legal Assistant III	24.96
Paralegal/Legal Assistant IV	25.98
Photooptics Technician	22.51
Technical Writer	20.66
Unexploded (UXO) Safety Escort	19.58
Unexploded (UXO) Sweep Personnel	19.58
Unexploded Ordnance (UXO) Technician I	19.58
Unexploded Ordnance (UXO) Technician II	23.69
Unexploded Ordnance (UXO) Technician III	29.96
Weather Observer, Combined Upper Air and Surface Programs (3)	16.35
Weather Observer, Senior (3)	19.83
Weather Observer, Upper Air	16.35
Transportation/ Mobile Equipment Operation Occupations	
Bus Driver	13.90
Parking and Lot Attendant	7.36
Shuttle Bus Driver	9.82
Taxi Driver	8.01
Truckdriver, Heavy Truck	14.42
Truckdriver, Light Truck	9.96
Truckdriver, Medium Truck	13.88
Truckdriver, Tractor-Trailer	14.85

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 $2.56 per hour computed on the basis of all hours worked by service employees employed on the contract.

VACATION: 2 weeks paid vacation after 1 year of service with a contractor or successor; 3 weeks after 5 years, and 4 weeks after 15 years. Length of service includes the whole span of continuous service with the present contractor or successor, wherever employed, and with the predecessor contractors in the performance of similar work at the same Federal facility. (Reg. 29 CFR 4.173)

HOLIDAYS: A minimum of ten paid holidays per year: New Year's Day, Martin Luther King Jr.'s Birthday, Washington's Birthday, Memorial Day, Independence

Day, Labor Day, Columbus Day, Veterans' Day, Thanksgiving Day, and Christmas Day. (A contractor may substitute for any of the named holidays another day off with pay in accordance with a plan communicated to the employees involved.) (See 29 CFR 4.174)

THE OCCUPATIONS WHICH HAVE PARENTHESES AFTER THEM RECEIVE THE FOLLOWING BENEFITS (as numbered):

1) Does not apply to employees employed in a bona fide executive, administrative, or professional capacity as defined and delineated in 29 CFR 541. (See CFR 4.156)

2) APPLICABLE TO AIR TRAFFIC CONTROLLERS ONLY - NIGHT DIFFERENTIAL: An employee is entitled to pay for all work performed between the hours of 6:00 P.M. and 6:00 A.M. at the rate of basic pay plus a night pay differential amounting to 10 percent of the rate of basic pay.

3) WEATHER OBSERVERS - NIGHT PAY & SUNDAY PAY: If you work at night as part of a regular tour of duty, you will earn a night differential and receive an additional 10% of basic pay for any hours worked between 6pm and 6am. If you are a full-time employed (40 hours a week) and Sunday is part of your regularly scheduled workweek, you are paid at your rate of basic pay plus a Sunday premium of 25% of your basic rate for each hour of Sunday work which is not overtime (i.e. occasional work on Sunday outside the normal tour of duty is considered overtime work).

HAZARDOUS PAY DIFFERENTIAL

An 8 percent differential is applicable to employees employed in a position that represents a high degree of hazard when working with or in close proximity to ordinance, explosives, and incendiary materials. This includes work such as screening, blending, dying, mixing, and pressing of sensitive ordance, explosives, and pyrotechnic compositions such as lead azide, black powder and photoflash powder. All dry-house activities involving propellants or explosives. Demilitarization, modification, renovation, demolition, and maintenance operations on sensitive ordnance, explosives and incendiary materials. All operations involving 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 ordance, (or employees possibly adjacent to) explosives and incendiary materials which involves potential injury such as laceration of hands, face, or arms of the employee engaged in the operation, irritation of the skin, minor burns and the like; minimal damage to immediate or adjacent work area or equipment being used. All operations involving, unloading, storage, and hauling of ordance, explosive, and incendiary ordnance material other than small arms ammunition.

These differentials are only applicable to work that has been specifically designated by the agency for ordance, explosives, and incendiary material differential pay.

**** UNIFORM ALLOWANCE ****

If employees are required to wear uniforms in the performance of this contract (either by the terms of the Government contract, by the employer, by the state or local law, etc.), the cost of furnishing such uniforms and maintaining (by laundering or dry cleaning) such uniforms is an expense that may not be borne

by an employee where such cost reduces the hourly rate below that required by the wage determination. The Department of Labor will accept payment in accordance with the following standards as compliance:

The contractor or subcontractor is required to furnish all employees with an adequate number of uniforms without cost or to reimburse employees for the actual cost of the uniforms. In addition, where uniform cleaning and maintenance is made the responsibility of the employee, all contractors and subcontractors subject to this wage determination shall (in the absence of a bona fide collective bargaining agreement providing for a different amount, or the furnishing of contrary affirmative proof as to the actual cost), reimburse all employees for such cleaning and maintenance at a rate of $3.35 per week (or $.67 cents per day). However, in those instances where the uniforms furnished are made of "wash and wear" materials, may be routinely washed and dried with other personal garments, and do not require any special treatment such as dry cleaning, daily washing, or commercial laundering in order to meet the cleanliness or appearance standards set by the terms of the Government contract, by the contractor, by law, or by the nature of the work, there is no requirement that employees be reimbursed for uniform maintenance costs.

**** NOTES APPLYING TO THIS WAGE DETERMINATION ****

Source of Occupational Title and Descriptions:

The duties of employees under job titles listed are those described in the "Service Contract Act Directory of Occupations," Fourth Edition, January 1993, as amended by the Third Supplement, dated March 1997, unless otherwise indicated. This publication may be obtained from the Superintendent of Documents, at 202-783-3238, or by writing to the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Copies of specific job descriptions may also be obtained from the appropriate contracting officer.

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.

REGISTER OF WAGE DETERMINATIONS UNDER THE SERVICE CONTRACT ACT By direction of the Secretary of Labor	U.S. DEPARTMENT OF LABOR EMPLOYMENT STANDARDS ADMINISTRATION WAGE AND HOUR DIVISION WASHINGTON D.C. 20210
William W.Gross Director Division of Wage Determinations	Wage Determination No.: 1994-2544 Revision No.: 25 Date Of Last Revision: 06/24/2002

States: North Carolina, Virginia

Area: North Carolina Counties of Camden, Chowan, Currituck, Gates, Pasquotank, Perquimans
Virginia Counties of Chesapeake, Gloucester, Hampton, Isle of Wight, James City, Mathews, Newport News, Norfolk, Poquoson, Portsmouth, Southampton, Suffolk, Surry, Virginia Beach, Williamsburg, York

Fringe Benefits Required Follow the Occupational Listing

OCCUPATION TITLE	MINIMUM WAGE RATE
Administrative Support and Clerical Occupations	
Accounting Clerk I	8.38
Accounting Clerk II	10.58
Accounting Clerk III	13.17
Accounting Clerk IV	14.28
Court Reporter	12.87
Dispatcher, Motor Vehicle	12.63
Document Preparation Clerk	10.68
Duplicating Machine Operator	9.93
Film/Tape Librarian	9.60
General Clerk I	7.91
General Clerk II	9.73
General Clerk III	12.10
General Clerk IV	13.53
Housing Referral Assistant	14.93
Key Entry Operator I	9.13
Key Entry Operator II	11.49
Messenger (Courier)	7.89
Order Clerk I	11.13
Order Clerk II	14.56
Personnel Assistant (Employment) I	11.16
Personnel Assistant (Employment) II	12.90
Personnel Assistant (Employment) III	13.63
Personnel Assistant (Employment) IV	15.61
Production Control Clerk	16.40
Rental Clerk	11.35
Scheduler, Maintenance	12.36
Secretary I	12.36
Secretary II	14.39
Secretary III	16.42
Secretary IV	19.25
Secretary V	20.21
Service Order Dispatcher	12.14
Stenographer I	10.45
Stenographer II	12.90
Supply Technician	17.31
Survey Worker (Interviewer)	12.02
Switchboard Operator-Receptionist	9.20

Test Examiner	13.08
Test Proctor	13.08
Travel Clerk I	9.92
Travel Clerk II	10.59
Travel Clerk III	11.30
Word Processor I	10.70
Word Processor II	12.90
Word Processor III	13.50
Automatic Data Processing Occupations	
Computer Data Librarian	8.55
Computer Operator I	10.48
Computer Operator II	12.11
Computer Operator III	15.00
Computer Operator IV	17.38
Computer Operator V	18.47
Computer Programmer I (1)	19.24
Computer Programmer II (1)	21.77
Computer Programmer III (1)	25.96
Computer Programmer IV (1)	27.62
Computer Systems Analyst I (1)	25.31
Computer Systems Analyst II (1)	27.62
Computer Systems Analyst III (1)	27.62
Peripheral Equipment Operator	11.06
Automotive Service Occupations	
Automotive Body Repairer, Fiberglass	18.20
Automotive Glass Installer	16.60
Automotive Worker	16.60
Electrician, Automotive	17.38
Mobile Equipment Servicer	15.00
Motor Equipment Metal Mechanic	18.20
Motor Equipment Metal Worker	16.60
Motor Vehicle Mechanic	18.20
Motor Vehicle Mechanic Helper	14.15
Motor Vehicle Upholstery Worker	15.78
Motor Vehicle Wrecker	16.60
Painter, Automotive	17.38
Radiator Repair Specialist	15.78
Tire Repairer	13.37
Transmission Repair Specialist	18.20
Food Preparation and Service Occupations	
Baker	8.98
Cook I	8.39
Cook II	9.28
Dishwasher	7.42
Food Service Worker	7.92
Meat Cutter	11.54
Waiter/Waitress	7.56
Furniture Maintenance and Repair Occupations	
Electrostatic Spray Painter	20.27
Furniture Handler	13.34
Furniture Refinisher	16.03
Furniture Refinisher Helper	13.05
Furniture Repairer, Minor	14.56
Upholsterer	16.03
General Services and Support Occupations	
Cleaner, Vehicles	8.29
Elevator Operator	7.60
Gardener	10.19
House Keeping Aid I	7.14

House Keeping Aid II	9.15
Janitor	8.74
Laborer, Grounds Maintenance	9.52
Maid or Houseman	7.11
Pest Controller	9.61
Refuse Collector	9.11
Tractor Operator	9.71
Window Cleaner	9.50
Health Occupations	
Dental Assistant	11.11
Emergency Medical Technician (EMT)/Paramedic/Ambulance Driver	12.63
Licensed Practical Nurse I	10.44
Licensed Practical Nurse II	11.71
Licensed Practical Nurse III	13.10
Medical Assistant	9.79
Medical Laboratory Technician	11.39
Medical Record Clerk	10.90
Medical Record Technician	13.15
Nursing Assistant I	7.67
Nursing Assistant II	8.63
Nursing Assistant III	9.42
Nursing Assistant IV	10.56
Pharmacy Technician	11.84
Phlebotomist	11.71
Registered Nurse I	19.72
Registered Nurse II	23.42
Registered Nurse II, Specialist	23.42
Registered Nurse III	28.34
Registered Nurse III, Anesthetist	28.34
Registered Nurse IV	33.96
Information and Arts Occupations	
Audiovisual Librarian	14.23
Exhibits Specialist I	15.55
Exhibits Specialist II	18.89
Exhibits Specialist III	20.98
Illustrator I	17.63
Illustrator II	21.42
Illustrator III	23.78
Librarian	20.32
Library Technician	11.45
Photographer I	11.73
Photographer II	15.55
Photographer III	18.89
Photographer IV	20.98
Photographer V	25.39
Laundry, Dry Cleaning, Pressing and Related Occupations	
Assembler	6.95
Counter Attendant	6.95
Dry Cleaner	8.18
Finisher, Flatwork, Machine	6.95
Presser, Hand	6.95
Presser, Machine, Drycleaning	6.95
Presser, Machine, Shirts	6.95
Presser, Machine, Wearing Apparel, Laundry	6.95
Sewing Machine Operator	8.77
Tailor	9.68
Washer, Machine	7.49
Machine Tool Operation and Repair Occupations	
Machine-Tool Operator (Toolroom)	18.33
Tool and Die Maker	20.31

Material Handling and Packing Occupations	
Forklift Operator	12.33
Fuel Distribution System Operator	15.10
Material Coordinator	16.72
Material Expediter	16.72
Material Handling Laborer	8.86
Order Filler	9.15
Production Line Worker (Food Processing)	12.00
Shipping Packer	11.59
Shipping/Receiving Clerk	10.56
Stock Clerk (Shelf Stocker; Store Worker II)	11.85
Store Worker I	9.42
Tools and Parts Attendant	14.93
Warehouse Specialist	14.36
Mechanics and Maintenance and Repair Occupations	
Aircraft Mechanic	20.53
Aircraft Mechanic Helper	15.13
Aircraft Quality Control Inspector	21.44
Aircraft Servicer	16.87
Aircraft Worker	17.74
Appliance Mechanic	16.03
Bicycle Repairer	13.37
Cable Splicer	18.47
Carpenter, Maintenance	16.03
Carpet Layer	17.61
Electrician, Maintenance	17.46
Electronics Technician, Maintenance I	15.47
Electronics Technician, Maintenance II	15.82
Electronics Technician, Maintenance III	16.95
Fabric Worker	14.56
Fire Alarm System Mechanic	16.79
Fire Extinguisher Repairer	13.84
Fuel Distribution System Mechanic	18.32
General Maintenance Worker	15.31
Heating, Refrigeration and Air Conditioning Mechanic	16.79
Heavy Equipment Mechanic	16.79
Heavy Equipment Operator	16.79
Instrument Mechanic	16.79
Laborer	10.02
Locksmith	17.51
Machinery Maintenance Mechanic	16.75
Machinist, Maintenance	16.79
Maintenance Trades Helper	13.05
Millwright	20.58
Office Appliance Repairer	16.03
Painter, Aircraft	18.24
Painter, Maintenance	16.03
Pipefitter, Maintenance	16.79
Plumber, Maintenance	16.03
Pneudraulic Systems Mechanic	16.79
Rigger	16.79
Scale Mechanic	15.31
Sheet-Metal Worker, Maintenance	16.79
Small Engine Mechanic	15.31
Telecommunication Mechanic I	16.79
Telecommunication Mechanic II	20.16
Telephone Lineman	16.79
Welder, Combination, Maintenance	16.79
Well Driller	16.79

Woodcraft Worker	16.79
Woodworker	13.84
Miscellaneous Occupations	
Animal Caretaker	7.35
Carnival Equipment Operator	9.24
Carnival Equipment Repairer	9.69
Carnival Worker	6.58
Cashier	7.09
Desk Clerk	7.98
Embalmer	17.93
Lifeguard	8.07
Mortician	19.39
Park Attendant (Aide)	10.13
Photofinishing Worker (Photo Lab Tech., Darkroom Tech)	8.22
Recreation Specialist	13.50
Recycling Worker	11.15
Sales Clerk	8.07
School Crossing Guard (Crosswalk Attendant)	9.00
Sport Official	7.02
Survey Party Chief (Chief of Party)	12.43
Surveying Aide	7.76
Surveying Technician (Instr. Person/Surveyor Asst./Instr.)	11.30
Swimming Pool Operator	10.33
Vending Machine Attendant	10.14
Vending Machine Repairer	11.88
Vending Machine Repairer Helper	10.14
Personal Needs Occupations	
Child Care Attendant	7.15
Child Care Center Clerk	11.06
Chore Aid	6.57
Homemaker	10.63
Plant and System Operation Occupations	
Boiler Tender	16.79
Sewage Plant Operator	17.81
Stationary Engineer	16.79
Ventilation Equipment Tender	13.05
Water Treatment Plant Operator	17.81
Protective Service Occupations	
Alarm Monitor	10.86
Corrections Officer	13.17
Court Security Officer	13.19
Detention Officer	13.19
Firefighter	13.65
Guard I	8.18
Guard II	9.79
Police Officer	16.90
Stevedoring/Longshoremen Occupations	
Blocker and Bracer	14.84
Hatch Tender	14.84
Line Handler	14.84
Stevedore I	14.04
Stevedore II	15.42
Technical Occupations	
Air Traffic Control Specialist, Center (2)	28.21
Air Traffic Control Specialist, Station (2)	19.46
Air Traffic Control Specialist, Terminal (2)	21.43
Archeological Technician I	13.01
Archeological Technician II	14.63
Archeological Technician III	18.07

Cartographic Technician	17.38
Civil Engineering Technician	18.89
Computer Based Training (CBT) Specialist/ Instructor	23.07
Drafter I	11.46
Drafter II	12.90
Drafter III	16.21
Drafter IV	19.70
Engineering Technician I	15.58
Engineering Technician II	16.67
Engineering Technician III	20.54
Engineering Technician IV	24.87
Engineering Technician V	29.05
Engineering Technician VI	35.89
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Flight Simulator/Instructor (Pilot)	26.55
Graphic Artist	18.24
Instructor	19.19
Laboratory Technician	13.51
Mathematical Technician	18.07
Paralegal/Legal Assistant I	12.85
Paralegal/Legal Assistant II	15.60
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Paralegal/Legal Assistant IV	23.09
Photooptics Technician	18.89
Technical Writer	18.98
Unexploded (UXO) Safety Escort	17.93
Unexploded (UXO) Sweep Personnel	17.93
Unexploded Ordnance (UXO) Technician I	17.93
Unexploded Ordnance (UXO) Technician II	21.70
Unexploded Ordnance (UXO) Technician III	26.01
Weather Observer, Combined Upper Air and Surface Programs (3)	15.49
Weather Observer, Senior (3)	16.76
Weather Observer, Upper Air (3)	15.49
Transportation/ Mobile Equipment Operation Occupations	
Bus Driver	10.22
Parking and Lot Attendant	7.51
Shuttle Bus Driver	9.80
Taxi Driver	9.68
Truckdriver, Heavy Truck	13.31
Truckdriver, Light Truck	9.80
Truckdriver, Medium Truck	10.73
Truckdriver, Tractor-Trailer	13.31

ALL OCCUPATIONS LISTED ABOVE RECEIVE THE FOLLOWING BENEFITS:

HEALTH & WELFARE: Life, accident, and health insurance plans, sick leave, pension plans, civic and personal leave, severance pay, and savings and thrift plans. Minimum employer contributions costing an average of $2.56 per hour computed on the basis of all hours worked by service employees employed on the contract.

VACATION: 2 weeks paid vacation after 1 year of service with a contractor or successor; 3 weeks after 5 years, and 4 weeks after 15 years. Length of service includes the whole span of continuous service with the present contractor or successor, wherever employed, and with the predecessor contractors in the performance of similar work at the same Federal facility. (Reg. 29 CFR 4.173)

HOLIDAYS: A minimum of ten paid holidays per year: New Year's Day, Martin Luther King

Jr.'s Birthday, Washington's Birthday, Memorial Day, Independence Day, Labor Day, Columbus Day, Veterans' Day, Thanksgiving Day, and Christmas Day. (A contractor may substitute for any of the named holidays another day off with pay in accordance with a plan communicated to the employees involved.) (See 29 CFR 4.174)

THE OCCUPATIONS WHICH HAVE PARENTHESES AFTER THEM RECEIVE THE FOLLOWING BENEFITS (as numbered):
1) Does not apply to employees employed in a bona fide executive, administrative, or professional capacity as defined and delineated in 29 CFR 541. (See CFR 4.156)
2) APPLICABLE TO AIR TRAFFIC CONTROLLERS ONLY - NIGHT DIFFERENTIAL: An employee is entitled to pay for all work performed between the hours of 6:00 P.M. and 6:00 A.M. at the rate of basic pay plus a night pay differential amounting to 10 percent of the rate of basic pay.
3) WEATHER OBSERVERS - NIGHT PAY & SUNDAY PAY: If you work at night as part of a regular tour of duty, you will earn a night differential and receive an additional 10% of basic pay for any hours worked between 6pm and 6am. If you are a full-time employed (40 hours a week) and Sunday is part of your regularly scheduled workweek, you are paid at your rate of basic pay plus a Sunday premium of 25% of your basic rate for each hour of Sunday work which is not overtime (i.e. occasional work on Sunday outside the normal tour of duty is considered overtime work).

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A 4 percent differential is applicable to employees employed in a position that represents a low degree of hazard when working with, or in close proximity to ordance, (or employees possibly adjacent to) explosives and incendiary materials which involves potential injury such as laceration of hands, face, or arms of the employee engaged in the operation, irritation of the skin, minor burns and the like; minimal damage to immediate or adjacent work area or equipment being used. All operations involving, unloading, storage, and hauling of ordance, explosive, and incendiary ordnance material other than small arms ammunition.

These differentials are only applicable to work that has been specifically designated by the agency for ordance, explosives, and incendiary material differential pay.

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If employees are required to wear uniforms in the performance of this contract (either by the terms of the Government contract, by the employer, by the state or local law, etc.), the cost of furnishing such uniforms and maintaining (by laundering or dry cleaning) such uniforms is an expense that may not be borne by an employee where such cost reduces the hourly rate below that required by the wage determination. The Department of Labor will accept payment in accordance with the following standards as compliance:

The contractor or subcontractor is required to furnish all employees with an adequate number of uniforms without cost or to reimburse employees for the actual cost of the uniforms. In addition, where uniform cleaning and maintenance is made the responsibility of the employee, all contractors and subcontractors subject to this wage determination shall (in the absence of a bona fide collective bargaining agreement providing for a different amount, or the furnishing of contrary affirmative proof as to the actual cost), reimburse all employees for such cleaning and maintenance at a rate of $3.35 per week (or $.67 cents per day). However, in those instances where the uniforms furnished are made of "wash and wear" materials, may be routinely washed and dried with other personal garments, and do not require any special treatment such as dry cleaning, daily washing, or commercial laundering in order to meet the cleanliness or appearance standards set by the terms of the Government contract, by the contractor, by law, or by the nature of the work, there is no requirement that employees be reimbursed for uniform maintenance costs.

**** NOTES APPLYING TO THIS WAGE DETERMINATION ****

Source of Occupational Title and Descriptions:

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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.

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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).

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5) The contracting officer transmits the Wage and Hour decision to the contractor.

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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.

REGISTER OF WAGE DETERMINATIONS UNDER THE SERVICE CONTRACT ACT By direction of the Secretary of Labor	U.S. DEPARTMENT OF LABOR EMPLOYMENT STANDARDS ADMINISTRATION WAGE AND HOUR DIVISION WASHINGTON D.C. 20210
William W.Gross Director Division of Wage Determinations	Wage Determination No.: 1994-2574 Revision No.: 14 Date Of Last Revision: 02/25/2002

States: Kentucky, Ohio, **West Virginia**

Area: **Kentucky Counties** of Boyd, Carter, Elliott, Floyd, Greenup, Johnson, Lawrence, Lewis, Magoffin, Martin, Pike
Ohio Counties of Monroe, Morgan, Noble, Washington
West Virginia - All Counties except: Berkeley, Jefferson

Note: West Virginia include all counties except Berkeley and Jefferson counties.

Fringe Benefits Required Follow the Occupational Listing

OCCUPATION TITLE	MINIMUM WAGE RATE
Administrative Support and Clerical Occupations	
Accounting Clerk I	8.21
Accounting Clerk II	10.37
Accounting Clerk III	18.04
Accounting Clerk IV	20.19
Court Reporter	16.96
Dispatcher, Motor Vehicle	14.02
Document Preparation Clerk	11.14
Duplicating Machine Operator	11.19
Film/Tape Librarian	11.99
General Clerk I	8.54
General Clerk II	9.60
General Clerk III	12.02
General Clerk IV	13.50
Housing Referral Assistant	14.85
Key Entry Operator I	8.28
Key Entry Operator II	12.18
Messenger (Courier)	7.53
Order Clerk I	7.94
Order Clerk II	9.53
Personnel Assistant (Employment) I	10.98
Personnel Assistant (Employment) II	12.32
Personnel Assistant (Employment) III	15.43
Personnel Assistant (Employment) IV	17.34
Production Control Clerk	15.63
Rental Clerk	11.99
Scheduler, Maintenance	11.99
Secretary I	11.99
Secretary II	13.41
Secretary III	14.63
Secretary IV	16.51
Secretary V	18.29
Service Order Dispatcher	13.19
Stenographer I	13.51
Stenographer II	15.17
Supply Technician	16.32
Survey Worker (Interviewer)	13.41

Switchboard Operator-Receptionist	7.71
Test Examiner	13.41
Test Proctor	13.41
Travel Clerk I	9.86
Travel Clerk II	10.98
Travel Clerk III	11.72
Word Processor I	10.61
Word Processor II	11.91
Word Processor III	13.32
Automatic Data Processing Occupations	
Computer Data Librarian	9.20
Computer Operator I	10.32
Computer Operator II	11.57
Computer Operator III	12.87
Computer Operator IV	14.30
Computer Operator V	15.84
Computer Programmer I (1)	14.22
Computer Programmer II (1)	17.60
Computer Programmer III (1)	21.49
Computer Programmer IV (1)	26.05
Computer Systems Analyst I (1)	20.39
Computer Systems Analyst II (1)	24.66
Computer Systems Analyst III (1)	26.66
Peripheral Equipment Operator	10.69
Automotive Service Occupations	
Automotive Body Repairer, Fiberglass	15.24
Automotive Glass Installer	14.02
Automotive Worker	14.02
Electrician, Automotive	14.52
Mobile Equipment Servicer	12.99
Motor Equipment Metal Mechanic	15.03
Motor Equipment Metal Worker	14.02
Motor Vehicle Mechanic	15.03
Motor Vehicle Mechanic Helper	12.44
Motor Vehicle Upholstery Worker	13.53
Motor Vehicle Wrecker	14.02
Painter, Automotive	14.52
Radiator Repair Specialist	14.02
Tire Repairer	12.55
Transmission Repair Specialist	15.04
Food Preparation and Service Occupations	
Baker	9.39
Cook I	8.68
Cook II	9.39
Dishwasher	7.16
Food Service Worker	7.16
Meat Cutter	10.41
Waiter/Waitress	7.65
Furniture Maintenance and Repair Occupations	
Electrostatic Spray Painter	14.72
Furniture Handler	11.58
Furniture Refinisher	14.72
Furniture Refinisher Helper	12.62
Furniture Repairer, Minor	13.71
Upholsterer	14.72
General Services and Support Occupations	
Cleaner, Vehicles	7.38
Elevator Operator	7.99
Gardener	8.75

House Keeping Aid I	6.66
House Keeping Aid II	7.16
Janitor	8.01
Laborer, Grounds Maintenance	7.71
Maid or Houseman	6.66
Pest Controller	10.42
Refuse Collector	8.43
Tractor Operator	8.82
Window Cleaner	8.54
Health Occupations	
Dental Assistant	10.93
Emergency Medical Technician (EMT)/Paramedic/Ambulance Driver	10.93
Licensed Practical Nurse I	10.38
Licensed Practical Nurse II	11.64
Licensed Practical Nurse III	13.02
Medical Assistant	9.77
Medical Laboratory Technician	12.23
Medical Record Clerk	10.77
Medical Record Technician	13.54
Nursing Assistant I	7.42
Nursing Assistant II	8.30
Nursing Assistant III	9.06
Nursing Assistant IV	10.17
Pharmacy Technician	12.19
Phlebotomist	11.90
Registered Nurse I	15.34
Registered Nurse II	18.80
Registered Nurse II, Specialist	18.80
Registered Nurse III	22.71
Registered Nurse III, Anesthetist	22.71
Registered Nurse IV	27.21
Information and Arts Occupations	
Audiovisual Librarian	18.16
Exhibits Specialist I	12.91
Exhibits Specialist II	15.99
Exhibits Specialist III	19.56
Illustrator I	12.91
Illustrator II	15.99
Illustrator III	19.56
Librarian	18.29
Library Technician	13.41
Photographer I	12.30
Photographer II	13.71
Photographer III	16.98
Photographer IV	20.76
Photographer V	25.11
Laundry, Dry Cleaning, Pressing and Related Occupations	
Assembler	7.06
Counter Attendant	7.06
Dry Cleaner	9.08
Finisher, Flatwork, Machine	7.06
Presser, Hand	7.06
Presser, Machine, Drycleaning	7.06
Presser, Machine, Shirts	7.06
Presser, Machine, Wearing Apparel, Laundry	7.06
Sewing Machine Operator	9.74
Tailor	10.35
Washer, Machine	7.69

Machine Tool Operation and Repair Occupations	
Machine-Tool Operator (Toolroom)	14.72
Tool and Die Maker	15.27
Material Handling and Packing Occupations	
Forklift Operator	12.34
Fuel Distribution System Operator	15.50
Material Coordinator	15.22
Material Expediter	15.22
Material Handling Laborer	8.18
Order Filler	10.71
Production Line Worker (Food Processing)	12.21
Shipping Packer	10.42
Shipping/Receiving Clerk	9.89
Stock Clerk (Shelf Stocker; Store Worker II)	12.55
Store Worker I	10.15
Tools and Parts Attendant	12.21
Warehouse Specialist	12.21
Mechanics and Maintenance and Repair Occupations	
Aircraft Mechanic	17.02
Aircraft Mechanic Helper	14.01
Aircraft Quality Control Inspector	17.50
Aircraft Servicer	15.22
Aircraft Worker	15.77
Appliance Mechanic	14.72
Bicycle Repairer	12.72
Cable Splicer	19.28
Carpenter, Maintenance	14.93
Carpet Layer	14.21
Electrician, Maintenance	17.42
Electronics Technician, Maintenance I	11.37
Electronics Technician, Maintenance II	19.27
Electronics Technician, Maintenance III	20.03
Fabric Worker	13.71
Fire Alarm System Mechanic	17.53
Fire Extinguisher Repairer	15.15
Fuel Distribution System Mechanic	19.03
General Maintenance Worker	14.21
Heating, Refrigeration and Air Conditioning Mechanic	15.44
Heavy Equipment Mechanic	17.42
Heavy Equipment Operator	13.64
Instrument Mechanic	17.53
Laborer	7.26
Locksmith	14.72
Machinery Maintenance Mechanic	17.53
Machinist, Maintenance	15.24
Maintenance Trades Helper	12.62
Millwright	16.70
Office Appliance Repairer	15.64
Painter, Aircraft	14.72
Painter, Maintenance	14.72
Pipefitter, Maintenance	17.53
Plumber, Maintenance	16.93
Pneudraulic Systems Mechanic	17.53
Rigger	16.24
Scale Mechanic	16.34
Sheet-Metal Worker, Maintenance	17.95
Small Engine Mechanic	14.20
Telecommunication Mechanic I	15.24
Telecommunication Mechanic II	15.77

Telephone Lineman	16.24
Welder, Combination, Maintenance	15.24
Well Driller	17.53
Woodcraft Worker	16.24
Woodworker	14.72
Miscellaneous Occupations	
Animal Caretaker	7.97
Carnival Equipment Operator	8.75
Carnival Equipment Repairer	9.16
Carnival Worker	7.16
Cashier	6.80
Desk Clerk	6.58
Embalmer	17.93
Lifeguard	9.33
Mortician	18.23
Park Attendant (Aide)	9.33
Photofinishing Worker (Photo Lab Tech., Darkroom Tech)	7.30
Recreation Specialist	9.13
Recycling Worker	9.81
Sales Clerk	7.43
School Crossing Guard (Crosswalk Attendant)	7.96
Sport Official	6.46
Survey Party Chief (Chief of Party)	10.99
Surveying Aide	6.80
Surveying Technician (Instr. Person/Surveyor Asst./Instr.)	9.33
Swimming Pool Operator	10.42
Vending Machine Attendant	9.24
Vending Machine Repairer	10.41
Vending Machine Repairer Helper	9.24
Personal Needs Occupations	
Child Care Attendant	6.88
Child Care Center Clerk	8.59
Chore Aid	6.66
Homemaker	9.13
Plant and System Operation Occupations	
Boiler Tender	17.70
Sewage Plant Operator	15.32
Stationary Engineer	17.70
Ventilation Equipment Tender	12.62
Water Treatment Plant Operator	14.72
Protective Service Occupations	
Alarm Monitor	8.20
Corrections Officer	12.03
Court Security Officer	13.78
Detention Officer	12.92
Firefighter	13.49
Guard I	7.81
Guard II	8.74
Police Officer	16.15
Stevedoring/Longshoremen Occupations	
Blocker and Bracer	14.69
Hatch Tender	14.64
Line Handler	14.64
Stevedore I	13.25
Stevedore II	14.31
Technical Occupations	
Air Traffic Control Specialist, Center (2)	28.21
Air Traffic Control Specialist, Station (2)	19.46
Air Traffic Control Specialist, Terminal (2)	21.43

Archeological Technician I	16.07
Archeological Technician II	17.96
Archeological Technician III	22.26
Cartographic Technician	19.75
Civil Engineering Technician	17.60
Computer Based Training (CBT) Specialist/ Instructor	18.46
Drafter I	11.32
Drafter II	16.78
Drafter III	20.47
Drafter IV	22.26
Engineering Technician I	14.25
Engineering Technician II	15.99
Engineering Technician III	19.55
Engineering Technician IV	23.78
Engineering Technician V	29.63
Engineering Technician VI	35.53
Environmental Technician	14.30
Flight Simulator/Instructor (Pilot)	21.89
Graphic Artist	16.46
Instructor	17.56
Laboratory Technician	12.63
Mathematical Technician	21.43
Paralegal/Legal Assistant I	14.63
Paralegal/Legal Assistant II	16.51
Paralegal/Legal Assistant III	20.19
Paralegal/Legal Assistant IV	24.44
Photooptics Technician	22.92
Technical Writer	19.23
Unexploded (UXO) Safety Escort	17.93
Unexploded (UXO) Sweep Personnel	17.93
Unexploded Ordnance (UXO) Technician I	17.93
Unexploded Ordnance (UXO) Technician II	21.70
Unexploded Ordnance (UXO) Technician III	26.01
Weather Observer, Combined Upper Air and Surface Programs (3)	14.52
Weather Observer, Senior (3)	16.12
Weather Observer, Upper Air (3)	14.52
Transportation/ Mobile Equipment Operation Occupations	
Bus Driver	10.66
Parking and Lot Attendant	6.91
Shuttle Bus Driver	10.51
Taxi Driver	8.48
Truckdriver, Heavy Truck	13.53
Truckdriver, Light Truck	10.15
Truckdriver, Medium Truck	12.19
Truckdriver, Tractor-Trailer	13.53

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 $2.56 per hour computed on the basis of all hours worked by service employees employed on the contract.

VACATION: 2 weeks paid vacation after 1 year of service with a contractor or successor; 3 weeks after 5 years, and 4 weeks after 15 years. Length of service includes the whole span of continuous service with the present contractor or successor, wherever employed, and with the predecessor contractors in the performance of similar work at the same Federal facility. (Reg. 29 CFR 4.173)

HOLIDAYS: A minimum of ten paid holidays per year: New Year's Day, Martin Luther King Jr.'s Birthday, Washington's Birthday, Memorial Day, Independence Day, Labor Day, Columbus Day, Veterans' Day, Thanksgiving Day, and Christmas Day. (A contractor may substitute for any of the named holidays another day off with pay in accordance with a plan communicated to the employees involved.) (See 29 CFR 4.174)

THE OCCUPATIONS WHICH HAVE PARENTHESES AFTER THEM RECEIVE THE FOLLOWING BENEFITS (as numbered):
1) Does not apply to employees employed in a bona fide executive, administrative, or professional capacity as defined and delineated in 29 CFR 541. (See CFR 4.156)
2) APPLICABLE TO AIR TRAFFIC CONTROLLERS ONLY - NIGHT DIFFERENTIAL: An employee is entitled to pay for all work performed between the hours of 6:00 P.M. and 6:00 A.M. at the rate of basic pay plus a night pay differential amounting to 10 percent of the rate of basic pay.
3) WEATHER OBSERVERS - NIGHT PAY & SUNDAY PAY: If you work at night as part of a regular tour of duty, you will earn a night differential and receive an additional 10% of basic pay for any hours worked between 6pm and 6am. If you are a full-time employed (40 hours a week) and Sunday is part of your regularly scheduled workweek, you are paid at your rate of basic pay plus a Sunday premium of 25% of your basic rate for each hour of Sunday work which is not overtime (i.e. occasional work on Sunday outside the normal tour of duty is considered overtime work).

HAZARDOUS PAY DIFFERENTIAL

An 8 percent differential is applicable to employees employed in a position that represents a high degree of hazard when working with or in close proximity to ordinance, explosives, and incendiary materials. This includes work such as screening, blending, dying, mixing, and pressing of sensitive ordance, explosives, and pyrotechnic compositions such as lead azide, black powder and photoflash powder. All dry-house activities involving propellants or explosives. Demilitarization, modification, renovation, demolition, and maintenance operations on sensitive ordnance, explosives and incendiary materials. All operations involving 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 ordance, (or employees possibly adjacent to) explosives and incendiary materials which involves potential injury such as laceration of hands, face, or arms of the employee engaged in the operation, irritation of the skin, minor burns and the like; minimal damage to immediate or adjacent work area or equipment being used. All operations involving, unloading, storage, and hauling of ordance, explosive, and incendiary ordnance material other than small arms ammunition.

These differentials are only applicable to work that has been specifically designated by the agency for ordance, explosives, and incendiary material differential pay.

**** UNIFORM ALLOWANCE ****

If employees are required to wear uniforms in the performance of this contract (either by the terms of the Government contract, by the employer, by the state or local law, etc.), the cost of furnishing such uniforms and maintaining (by laundering or dry cleaning) such uniforms is an expense that may not be borne by an employee where such cost reduces the hourly rate below that required by the wage determination. The Department of Labor will accept payment in accordance with the following standards as compliance:

The contractor or subcontractor is required to furnish all employees with an adequate number of uniforms without cost or to reimburse employees for the actual cost of the uniforms. In addition, where uniform cleaning and maintenance is made the responsibility of the employee, all contractors and subcontractors subject to this wage determination shall (in the absence of a bona fide collective bargaining agreement providing for a different amount, or the furnishing of contrary affirmative proof as to the actual cost), reimburse all employees for such cleaning and maintenance at a rate of $3.35 per week (or $.67 cents per day). However, in those instances where the uniforms furnished are made of "wash and wear" materials, may be routinely washed and dried with other personal garments, and do not require any special treatment such as dry cleaning, daily washing, or commercial laundering in order to meet the cleanliness or appearance standards set by the terms of the Government contract, by the contractor, by law, or by the nature of the work, there is no requirement that employees be reimbursed for uniform maintenance costs.

**** NOTES APPLYING TO THIS WAGE DETERMINATION ****

Source of Occupational Title and Descriptions:

The duties of employees under job titles listed are those described in the "Service Contract Act Directory of Occupations," Fourth Edition, January 1993, as amended by the Third Supplement, dated March 1997, unless otherwise indicated. This publication may be obtained from the Superintendent of Documents, at 202-783-3238, or by writing to the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Copies of specific job descriptions may also be obtained from the appropriate contracting officer.

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.

REGISTER OF WAGE DETERMINATIONS UNDER THE SERVICE CONTRACT ACT
By Direction of the Secretary of Labor

U.S. DEPARTMENT OF LABOR
EMPLOYMENT STANDARDS ADMINISTRATION
WAGE AND HOUR DIVISION
WASHINGTON, D.C. 20210

ORIGINAL SIGNED BY:
William W. Gross **Division of**
Director **Wage Determinations**

Wage Determination No.: 1997-0335
Revision No.: 5
Date of Last Revision: 02/11/2003

This wage determination applies at the address(es) below:

Johnson Space Center, Orange County, CA

Johnson Space Center, Brevard County, FL

Johnson Space Center, Accomack County, VA

Employed on NASA contracts for support services to the **C**onsolidated **S**pace **O**perations **C**ontracts **(CSOC)**. The prime contractor being Lockheed Martin Space Operations Company with Subcontractors listed below:

Collective Bargaining Agreement between Allied Signal Technical Services Corporation (Subcontractor) and Local 543, International Brotherhood of Electrical Workers at the Deep Space Network Goldstone, California effective October 29, 1999 through October 30, 2003.

Collective Bargaining Agreement between Arcata Associates, Inc. (Subcontractor) and Communications Workers of America, AFL-CIO at Goddard Space Flight Center effective November 24, 2000 through November 23, 2003.

Collective Bargaining Agreement between Arcata Associates, Inc. (Subcontractor) and Local 543, International Brotherhood of Electrical Workers at the Deep Space Network Goldstone, California effective October 29, 1999 through October 30, 2003.

Collective Bargaining Agreement between EER System Inc. (Subcontractor) and Local No. 2185, Communications Workers of America, AFL-CIO at Goddard Space Flight Center effective December 23, 2000 through November 16, 2003.

Collective Bargaining Agreement between GHG Corporation (Subcontractor) and International Association of Machinist and Aerospace Workers, AFL-CIO, Local Lodge 2552 District 74 effective June 9, 2000 through June 8, 2003.

Collective Bargaining Agreement between GHG Corporation (Subcontractor) and The International Association of Machinist and Aerospace Workers, AFL-CIO, Local Lodge 2552 District 74 effective April 1, 2002 through March 31, 2005.

Collective Bargaining Agreement between GHG Corporation (Subcontractor) and Local No. 2088 International Brotherhood of Electrical Workers at Merritt Island, Florida effective July 1, 2000 through July 30, 2003.

Collective Bargaining Agreement between BAE Systems (Subcontractor) and Local 543, International Brotherhood of Electrical Workers effective October 30, 2002 through October 29, 2004.

Collective Bargaining Agreement between BAE Systems and Local No. 2088, International Brotherhood of Electrical Workers at Merritt Island, Florida effective July 1, 2000 through June 30, 2003.

Collective Bargaining Agreement between BAE Systems (Subcontractor) and Local Union #639, Affiliate of International Brotherhood, Teamsters, Chauffeurs, Warehousemen and Helpers of America effective November 1, 2000 through October 31, 2003.

Collective Bargaining Agreement between BAE Systems (Subcontractor) and International Association of Machinist and Aerospace Workers, AFL-CIO, Local Lodge 2552, District Lodge 74 effective March 30, 2002 through March 30, 2005

Collective Bargaining Agreement between Command Technologies, Inc. (Subcontractor) and International Brotherhood of Electrical Workers, Local No. 2088 effective June 15, 2002 through July 2, 2004.

In accordance with Sections 2(a) and 4(c) of the Service Contract Act, as amended, employees employed by the contractor(s) in performing services covered by the Collective Bargaining Agreement(s) are to be paid wage rates and fringe benefits set forth in the current collective bargaining agreement and modified extension agreement(s).

REGISTER OF WAGE DETERMINATIONS UNDER
THE SERVICE CONTRACT ACT
By Direction of the Secretary of Labor

U.S. DEPARTMENT OF LABOR
EMPLOYMENT STANDARDS AMINSTRATION
WAGE AND HOUR DIVISION
WASHINGTON, D.C. 20210

Original signed by:
William W. Gross
Director

Division of
Wage determinations

Wage Determination No.: 2001-0190
Revision No.: 01
Date of Last Revision: 06/01/2001

This wage determination applies at the address(es) below:

George C. Marshall Space Flight Center, Madison, Alabama

Employed on contract for NASA Program Information Systems Mission Services (PrISMS).

Collective Bargaining Agreement between The Cortez III Team and Communications Workers of America, AFL-CIO, Local 3905 effective September 1, 2001 through June 30, 2003.

In accordance with Sections 2(a) and 4(c) of the Service Contract Act, as amended, employees employed by the contractor(s) in performing services covered by the Collective Bargaining Agreement(s) are to be paid wage rates and fringe benefits set forth in the current collective bargaining agreement and modified extension agreement(s).

ATTACHMENT J-4

PERFORMANCE MEASUREMENT STANDARDS

(Applicable to PWS Sections 3.0 and 5.0)

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ATTACHMENTS

The following ATTACHMENTS J-4-(A) through J-4-(E) are for use in measuring performance of PWS Section 3.1 Agencywide Application Projects. ATTACHMENT J-4-(F) is for use in measuring performance of PWS Section 5.1, MSFC Applications and Web Services.

1. ATTACHMENT J-4-(A)- Agencywide Application Projects Performance Metric
2. ATTACHMENT J-4-(A)-(1)- Software Defects Per Lines of Source Code
3. ATTACHMENT J-4-(B)- Table Releases Performance Metric
4. ATTACHMENT J-4-(B)-(1)- Defects per Table Release
5. ATTACHMENT J-4-(C)- Technical Support Services Performance Metric
6. ATTACHMENT J-4-(C)-(1)- Technical Support Services Conversion Table
7. ATTACHMENT J-4-(D)- Quality of Customer Support Services
8. ATTACHMENT J-4-(D)-(1)- Customer Problem Resolution Conversion Table
9. ATTACHMENT J-4-(E)- Timeliness of Performance (also used in other areas)
10. ATTACHMENT J-4-(E)-(1)- Milestone Schedule Performance Table
11. ATTACHMENT J-4-(F) Trouble Ticket Response/Resolution Matrix

The following attachments are for use in performing the overall objective evaluation of PWS sections 3.0 and 5.0 (excluding 3.9 and 5.10).

12. ATTACHMENT J-4-(G)- Surveillance Plan Matrix
13. ATTACHMENT J-4-(H)- Performance Requirements Summary/MADR's
14. ATTACHMENT J-4-(I)- Quarterly/Semi-Annual Performance Evaluation Summary

DEFINITIONS

Availability- The percentage of time that a system or hardware required by the customer is considered nominally operable and suitable for its intended use.

Contracting Officer's Technical Representative (COTR)- The appointed representative of the Contracting Officer in all technical matters and the person who serves as the primary monitor and evaluator of all technical aspects of contractor performance.

Contracting Officer (CO)- The appointed representative of the Government in all contractual matters and the person who serves as the primary business monitor and evaluator of all business aspects of contractor performance. The CO is the only representative of the Government authorized to execute binding bilateral and unilateral modifications to the contract.

Data Requirements Document (DRD)- A document attached to the contract that provides insight into the required format and content of data, reports, or plans required by the Government in performance of the contract effort.

Maximum Allowable Defect Rate (MADR)- The maximum allowable defect rate is the defect rate that, when exceeded, indicates an unacceptable level of performance or quality was demonstrated by the contractor. Deductions will be taken for all defects exceeding the MADR (with appropriate credit for rework, if applicable) regardless of whether the MADR is expressed as a percentage of the effort to be performed or a number of defects per month.

Mean Time to Repair (MTTR)- The average time required to perform corrective maintenance on all of the removable items in a particular system.

Mean Time Between Failures (MTBF)- The average number of hours that pass before a component, assembly, or system fails.

Technical Monitor- Personnel who perform inspections or evaluations of effort that is specified in the PWS of the contract.

I. Overview

NASA is changing the way it contracts for goods and services. Through the implementation of Performance-Based Contracting (PBC) and other initiatives, NASA is assigning a higher level of integration responsibility and accountability to its contractors. By moving NASA civil service employees from detailed operations management to contract oversight roles, industry is enabled to mature and play an increasing role in determining how to accomplish the desired performance objectives outlined in the performance work statement.

The standards delineated herein are derived from the Performance Work Statement (PWS) and the activities delineated in the PWS. This is an integrated process that describes the plan for objectively monitoring certain areas of performance of the contractor to provide the overall evaluation of the contractor's technical performance. These standards, when used in conjunction with ATTACHMENT J-5, "UNITeS CPAF Evaluation Plan," will determine the overall fee applicable to a particular semi-annual performance evaluation period.

Objectives: The objective is to provide accurate and objective assessments of the contractor's technical performance. These assessments and their feedback to the contractor ensure receipt of the quality and kinds of products and services required by the contract. Surveillance provides assessments of contractor performance, documentation, plans, schedules, controls and processes. The accuracy of contractor reporting (reports, performance metrics, or insight metrics) will be verified either through surveillance of activities or review of each report. Where contractor reporting cannot give sufficient insight, the Government will provide surveillance assessments of contractor activities.

Change Control: The Performance Standards contained herein may be modified as implementation proceeds. The change control of this document is the responsibility of Office of the CIO management. As changes are required, they will be forwarded to the COTR/CO for implementation.

Contracting Officer's Technical Representative: The COTR serves as the single-point technical liaison between the contractor and NASA's CO. The COTR is responsible to the CO for monitoring and ensuring contractor performance and delivery of the final product and/or services under the contract. Specific duties and responsibilities delegated to the COTR affecting performance surveillance are to:

- Establish objectively measurable performance standards that will ensure receipt of the quality and kinds of services required by the PWS.
- Perform audits, surveillance and insight in accordance with the standards. Assure technical proficiency and compliance with the technical provisions of the contract by review and verification of the performance of the work.

- Approve and issue technical direction as may be required and authorized by the contract.
- Provide the contractor with the technical data and information as required by the contract.
- Monitor contractor compliance with the defined PWS or specification included in the contract.
- Conduct performance evaluations and compile and report this data to the NASA performance evaluation board to be used in conjunction with the award fee evaluation process for the other PWS elements.
- Establish and manage overall NASA Technical Monitor (TM) support of the above activities. This will include appointment of a TM for each PWS sub-section. The COTR may appoint a TM as monitor for more than one PWS sub-section. The COTR will also ensure that the data required for quarterly and semi-annual performance measurement is provided by each TM in a timely manner.

Technical Monitor (TM): The TM's are responsible to the COTR and support the COTR for technical insight of a specific work area of the PWS and assist in the review of budgetary requirements for that work area. The TM provides technical direction only through the COTR.

Specific TM authorities applicable to performance surveillance are:

- Monitor contract performance for each PWS sub-section of assigned responsibility and immediately report all problems related to it to the COTR. Keep the COTR informed, both orally and in writing, of the status of the contract and performance to requirements. Periodic reports, as agreed to between the COTR and TM, shall be affected.
- Establish and provide to the COTR performance metrics that will ensure receipt of the quality and kinds of supplies or services required by the contract.
- Perform on-site surveillance of the contractor's work affected at MSFC or other Centers. Document surveillance activities and provide a copy of the documentation to the COTR. Assure technical proficiency and compliance with the technical provisions of the contract by review and verification of work accomplished by the contractor.
- Assist the COTR in ensuring that the contractor complies with the defined PWS or specifications included in the contract. Assist the CO and COTR in interpreting technical requirements of the contract scope of work specifications. Differences of opinion shall be referred to the CO if necessary.
- Recommend in writing to the COTR any changes desired in scope and/or technical content of the contract with justification for the proposed action.

The TM establishes the insight requirements for a technical work area. In this role, the TM plans and implements the required performance surveillance and audit activities for that work area and provides input into the contractor's performance evaluation. As part of the TM's responsibility in reviewing contractor work, they will also attend contractor managed technical meetings and perform any other function deemed necessary to accurately assess performance. The TM will submit a QUARTERLY/SEMI-ANNUAL

PERFORMANCE EVALUATION SUMMARY, ATTACHMENT J-4-(I) for Technical Performance for each PWS sub-section assigned.

II. Performance Evaluation

The measurement of performance for the contract effort will be conducted in accordance with ATTACHMENT J-5, "UNITeS CPAF Evaluation Plan." As part of this process, PWS sections 3.0 and 5.0 will utilize the objective standards contained herein in order to assist in measuring technical performance. As part of the Award Fee process, other elements of contractor performance, as specifically addressed in the Award Fee Evaluation Plan, will also be assessed and the overall assessment will be submitted to the Performance Evaluation Board for recommendation of Earned Award Fee to the Fee Determination Official (FDO).

The specific PWS elements to be objectively measured are provided below:

WBS Section

3.0 Agency wide Information Services
- 3.1 Agencywide Application Projects
- 3.2 Digital Television
- 3.3 IT Security
- 3.4 Data Center Services
- 3.5 Russia IT Services
- 3.6 Wide Area Network (WAN) Services
- 3.7 Systems Management and Operations
- 3.8 Customer Support

5.0 MSFC Information Services
- 5.1 MSFC Applications and Web Services
- 5.2 Computer Systems Services
- 5.3 Customer Requested Hardware Maintenance
- 5.4 Telecommunications Services
- 5.5 IT Security Services
- 5.6 Documentation Repository Services
- 5.7 Audio Visual Information Services
- 5.8 IT Procurement Services
- 5.9 Customer Support

MSFC will conduct quarterly and semi-annual assessments of the contractor's technical performance. The quarterly performance evaluations will serve to evaluate the contractor's performance for the initial three-month period of each semi-annual evaluation period and will allow for Government feedback as well as emphasizing areas of concern. The semi-annual performance evaluations will serve to formally assess the contractor's performance and the results of this evaluation will determine the contractor's fee earned for that particular period.

Technical performance will be objectively evaluated by the TM's in order to assist in determining the fee earned by the contractor for PWS sections 3.0 and 5.0. The technical performance of each of the PWS sub-sections shall be measured in accordance with the surveillance techniques established in ATTACMENT J-4-(G) and against the performance standards outlined in ATTACHMENT J-4-(H). This data will be utilized in the establishment of the overall Award Fee earned for the period.

In order to facilitate calculation of Award Fee during each semi-annual reporting period, the following matrix will be utilized to assign a relative portion of the total potential award fee pool for PWS sections 3.0 and 5.0 to each PWS sub-section. Regardless of the fluctuations to these pools resulting from contract modifications, etc., the percentages of weight assigned to these PWS sub-sections will remain static unless also changed by contract modification.

(The negotiated contract value will be used to determine the appropriate percentages to be specified below.)

Award Fee PWS Sub-section Weighting Table

WBS Sub-section	Title	Weight
3.0	**AGENCYWIDE INFORMATION SERVICES**	
3.1	Agencywide Application Projects	TBD
3.2	Digital Television	TBD
3.3	IT Security	TBD
3.4	Data Center Services	TBD
3.5	Russia IT Services	TBD
3.6	WAN Services	TBD
3.7	Systems Management and Operations	TBD
3.8	Customer Support	TBD
3.9	N/A	N/A
	TOTAL	100%
5.0	**MSFC INFORMATION SERVICES**	
5.1	MSFC Applications and Web Services	TBD
5.2	Computer Systems Services	TBD
5.3	Customer Requested Hardware Maintenance	TBD
5.4	Telecommunications Services	TBD
5.5	Information Technology (IT) Security Services	TBD
5.6	Documentation Repository Services	TBD
5.7	Audio Visual Information Services	TBD
5.8	IT Procurement Services	TBD
5.9	Customer Support	TBD
5.10	N/A	N/A
	TOTAL	100%

COTR Responsibility

As part of the quarterly and semi-annual award fee evaluation process, the COTR is primarily responsible for ensuring timely collection of all objectively measured performance data from the TM's and compiling this data into a presentable format for calculation of the overall fee impact to the contract for each quarterly and semi-annual evaluation period. The data submitted to the COTR will be on ATTACHMENT J-4-(I), QUARTERLY/SEMI-ANNUAL PERFORMANCE EVALUATION SUMMARY, for each element of the PWS to be objectively measured.

The COTR will also be responsible for evaluating the TM's performance in measuring contractor performance against the Performance Requirements Summary (PRS) to ensure accuracy and objectivity. Should discrepancies be noted in evaluation of contractor performance, the COTR will ensure that corrective action is taken, either through receipt of corrected performance evaluation forms, TM training or other such means as determined necessary to ensure complete and accurate measure of contractor performance. The COTR will also ensure timeliness of TM submission of the required performance evaluation documentation and take appropriate corrective action where required.

The COTR will also retain as part of the official records, copies of all performance evaluation documentation. This documentation will be retained for the life of the contract for audit purposes.

The COTR will maintain an official electronic address book of all TM's and provide notification to these individuals at an appropriate time to remind them of the date that all performance evaluation data will be required for input into the quarterly and semi-annual evaluation periods.

TM Responsibility

The TM will be responsible for objectively measuring the performance of the contractor against the particular PWS sub-section(s) to which the TM has been assigned oversight responsibilities by the COTR. Primarily, the TM will perform an assessment of the contractor's technical performance against the metrics established in ATTACHMENT J-4-(H), PERFORMANCE REQUIREMENTS SUMMARY/MADRS to this document utilizing the methodology described in ATTACHMENT J-4-(G), PERFORAMANCE SURVEILLANCE PLAN MATRIX. The evaluation will be documented on ATTACHMENT J-4-(I), QUARTERLY/SEMI-ANNUAL PERFORMANCE EVALUATION SUMMARY, and any recommended deductions will also be specified on this document. The TM will ensure that sufficient backup documentation exists to allow the COTR to verify that any recommended reductions are in accordance with the schedule. This documentation will be retained for the life of the contract for audit purposes.

The TM will be responsible for negotiating schedules for individual services/deliverables under the particular PWS element for which they have been assigned oversight responsibility.

The TM will also retain as part of the official records, copies of all performance evaluation documentation submitted to the COTR. This documentation will be retained for the life of the contract for audit purposes.

The TM will also interface with the COTR to continually ensure that the criteria used for measurement of contractor performance are current and the most appropriate for use. Should PWS changes result in additional areas requiring TM surveillance, the TM will work with the COTR and CO to establish the appropriate performance measurement criteria.

CO Responsibility

The CO will work closely with the COTR to ensure that the performance measurements generated by the TM are in accordance with the plan.

ATTACHMENT J-4-(A)
AGENCYWIDE APPLICATION PROJECTS PERFORMANCE METRIC

The quality of software releases will be measured by the number of software discrepancy reports (DR) generated between software releases and will be evaluated based on an industry standard of 1 discrepancy per 1000 lines of code released. Industry standards indicate software releases for production have an average of 1 undetected defect per every 1000 lines of source code delivered. Effort expended to lower that average would not be cost effective. The defect rate is lowered as software matures for about five years and then begins to degrade as a factor of system volatility. The Agencywide legacy systems spread a wide range of maturity levels, ranging from immature (NPDMS) to a degraded state (NEMS) and high risk due to high volatility (NPPS). As a whole, the combined condition of the systems is probably better than the industry average for newly released code. Software quality will be evaluated per ATTACHMENT J-4-(A)-(1), Software Defects Per Lines Of Source Code. The table values are based on the following criterion:

RATING	DEFINITIONS	PERCENT OF APPLICABLE FEE EARNED
A	1 or less DRs for every 10,000 lines of code released	100%
B	1 DR for every 5,000 to 9,999 lines of code released	90%
C	1 DR for every 3,500 to 4,999 lines of code released	75%
D	1 DR for every 2,500 to 3,499 lines of code released	50%
E	1 DR for every 2499 or less lines of code released	0%

- Criteria for classifying and counting DRs
    - DRs generated on modules not included on the software release will not be counted against the quality of the software release, unless the module failed as a result of data being passed by a released module.
    - Software discrepancies must be against the SRS specification, the VDD specification, or against the 1620 specification which defined the requirement.
    - User preferences and incomplete specification fixes will not be counted as discrepancies. Examples of user preferences include such things as the location of a field on the screen or report or the wording of error messages, if not specifically stated on the specification. Examples of incomplete specification fixes include such things as the omission of certain data on a report which renders the report useless to the user but the data was not on the specification, or omission or superfluous edit criteria not explicitly defined on the specification.
    - Discrepancies identified prior to the release and not fixed before the release is made will be counted as DRs against the release.

    - The number of lines of code will be the number of source lines of code included in the release. This method of counting is commonly used in

industry because any line of code modified could effect and violate the entire module logic. The completed module must be analyzed before any lines of code are changed and must then be tested to ensure that the integrity of the module logic is intact after the change.

NUMBER OF LINES OF CODE RELEASED	ATTACHMENT J-4-(A)-(1) SOFTWARE DEFECTS PER LINES OF SOURCE CODE NUMBER OF DISCREPANCIES REPORTED																																									
=	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
< 5000	C	D	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
5000 - 9999	B	C	D	D	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
10000 - 14999	A	B	C	C	D	D	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
15000 - 19999	A	B	B	C	C	D	D	D	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
20000 - 24999	A	A	B	B	C	C	D	D	D	D	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
25000 - 29999	A	A	B	B	B	C	C	C	D	D	D	D	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
30000 - 34999	A	A	A	B	B	B	C	C	C	D	D	D	D	D	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
35000 - 39999	A	A	A	B	B	B	B	C	C	C	D	D	D	D	D	D	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
40000 - 44999	A	A	A	A	B	B	B	B	C	C	C	C	D	D	D	D	D	D	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
45000 - 49999	A	A	A	A	B	B	B	B	B	C	C	C	C	D	D	D	D	D	D	D	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
50000 - 54999	A	A	A	A	A	B	B	B	B	B	C	C	C	C	C	D	D	D	D	D	D	D	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
55000 - 59999	A	A	A	A	A	B	B	B	B	B	B	C	C	C	C	C	D	D	D	D	D	D	D	D	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
60000 - 64999	A	A	A	A	A	A	B	B	B	B	B	B	C	C	C	C	C	D	D	D	D	D	D	D	D	D	E	E	E	E	E	E	E	E	E	E	E	E	E	E
65000 - 69999	A	A	A	A	A	A	B	B	B	B	B	B	B	C	C	C	C	C	C	D	D	D	D	D	D	D	D	D	E	E	E	E	E	E	E	E	E	E	E	E
70000 - 74999	A	A	A	A	A	A	A	B	B	B	B	B	B	B	C	C	C	C	C	C	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E	E	E	E	E	E
75000 - 79999	A	A	A	A	A	A	A	B	B	B	B	B	B	B	B	C	C	C	C	C	C	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E	E	E	E
80000 - 84999	A	A	A	A	A	A	A	A	B	B	B	B	B	B	B	B	C	C	C	C	C	C	C	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E	E
85000 - 89999	A	A	A	A	A	A	A	A	B	B	B	B	B	B	B	B	B	C	C	C	C	C	C	C	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E
90000 - 94999	A	A	A	A	A	A	A	A	A	B	B	B	B	B	B	B	B	B	C	C	C	C	C	C	C	C	D	D	D	D	D	D	D	D	D	D	D	D	E	E
95000 - 99999	A	A	A	A	A	A	A	A	A	B	B	B	B	B	B	B	B	B	B	C	C	C	C	C	C	C	C	D	D	D	D	D	D	D	D	D	D	D	D	D
100000 - 104999	A	A	A	A	A	A	A	A	A	A	B	B	B	B	B	B	B	B	B	B	C	C	C	C	C	C	C	C	D	D	D	D	D	D	D	D	D	D	D	D
105000 - 109999	A	A	A	A	A	A	A	A	A	A	B	B	B	B	B	B	B	B	B	B	B	C	C	C	C	C	C	C	C	C	D	D	D	D	D	D	D	D	D	D
110000 - 114999	A	A	A	A	A	A	A	A	A	A	A	B	B	B	B	B	B	B	B	B	B	B	C	C	C	C	C	C	C	C	C	D	D	D	D	D	D	D	D	D
115000 - 119999	A	A	A	A	A	A	A	A	A	A	A	B	B	B	B	B	B	B	B	B	B	B	B	C	C	C	C	C	C	C	C	C	D	D	D	D	D	D	D	D
120000 - 124999	A	A	A	A	A	A	A	A	A	A	A	A	B	B	B	B	B	B	B	B	B	B	B	B	C	C	C	C	C	C	C	C	C	C	D	D	D	D	D	D
125000 - 129999	A	A	A	A	A	A	A	A	A	A	A	A	B	B	B	B	B	B	B	B	B	B	B	B	B	C	C	C	C	C	C	C	C	C	C	D	D	D	D	D
130000 - 134999	A	A	A	A	A	A	A	A	A	A	A	A	A	B	B	B	B	B	B	B	B	B	B	B	B	B	C	C	C	C	C	C	C	C	C	C	D	D	D	D
135000 - 139999	A	A	A	A	A	A	A	A	A	A	A	A	A	B	B	B	B	B	B	B	B	B	B	B	B	B	B	C	C	C	C	C	C	C	C	C	C	C	D	D
140000 - 144999	A	A	A	A	A	A	A	A	A	A	A	A	A	A	B	B	B	B	B	B	B	B	B	B	B	B	B	B	C	C	C	C	C	C	C	C	C	C	C	D
145000 -149999	A	A	A	A	A	A	A	A	A	A	A	A	A	A	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	C	C	C	C	C	C	C	C	C	C	C
150000 - 154999	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	C	C	C	C	C	C	C	C	C	C
155000 - 159999	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	C	C	C	C	C	C	C	C	C
160000 - 164999	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	C	C	C	C	C	C	C	C
165000 - 169999	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	C	C	C	C	C	C	C
170000 - 174999	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	C	C	C	C	C	C
175000 - 179999	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	C	C	C	C	C
180000 - 184999	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	C	C	C	C
185000 - 189999	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	C	C	C
190000 - 195999	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	C	C
195000 - 199999	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	C

ATTACHMENT J-4-(B)
TABLE RELEASES PERFORMANCE METRIC

The quality of Table Releases will be measured by the number of DRs generated against a released table. The table values are based on the following criterion

ADJECTIVE RATING	DEFINITIONS	PERCENT OF APPLICABLE FEE EARNED
A	Average of zero (0) DRs per table released	100%
B	Average of 1 DR per table released	75%
C	Average of 2 to 3 DRs per table released	50%
D	Average of 4 or more DRs per table released	0%

(DRs generated on tables not released by the Consolidation Center will not be counted against the quality of the table release, unless the table failed as a result of data being passed by a released module. The DR will be counted against the released module which will impact the software quality metrics).

(See Conversion Table J-4-(A)-(1) for complete Performance Metric conversion)

ATTACHMENT J-4-(B)-(1)

DEFECTS PER TABLE RELEASE

Number of Tables	**Number of Discrepancies**										
	0	1	2	3	4	5	6	7	8	9	10
1	A	B	C	C	D	D	D	D	D	D	D
2	A	B	B	C	C	C	D	D	D	D	D
3	A	A	B	B	B	C	C	C	C	C	C
4	A	A	B	B	B	B	C	C	C	C	C
5	A	A	A	B	B	B	C	C	C	C	C
6	A	A	A	B	B	B	B	B	C	C	C
7	A	A	A	A	B	B	B	B	B	B	B
8	A	A	A	A	B	B	B	B	B	B	B
9	A	A	A	A	A	B	B	B	B	B	B
10	A	A	A	A	A	B	B	B	B	B	B

ATTACHMENT J-4-(C)
TECHNICAL SUPPORT SERVICES PERFORMANCE METRIC

The Technical Support Services and Customer Support Services will be evaluated against help desk response time and the timely resolution of customer problems.

The following thresholds were established at project initiation and documented on the SESAAS Project Management Plan. These thresholds will be used in performance evaluation for technical services. Calls designated as emergency calls will receive an immediate response. All calls received on the prime shift will receive a response within 2 hours. Nonprime shift calls will receive a response within 12 hours.

Quality of Technical Support Services (help desk) will be evaluated per ATTACHMENT J-4-(C)-(1), Technical Support Services Conversion Table. The table values are based on the following criterion:

ADJECTIVE RATING	DEFINITIONS	PERCENT OF APPLICABLE FEE EARNED
A	In addition to 100% of calls being responded to per established thresholds, > 15% of the calls on the prime shift are responded to <= 1 hour	100%
B	In addition to 100% of calls being responded to per established thresholds, 1% to 15% of the calls on the prime shift are responded <= 1 hour	90%
C	100% of calls are responded to per established thresholds	80%
D	1% to 15% of the calls are responded outside the established threshold	50%
E	Greater than 15% of the calls are responded outside the established threshold	0%

ATTACHMENT J-4-(C)-(1)

TECHNICAL SUPPORT SERVICES CONVERSION TABLE

Number Of Calls	**Technical Support Services Number of Late Responses**																				
	10	**9**	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**0**	**-1**	**-2**	**-3**	**-4**	**-5**	**-6**	**-7**	**-8**	**-9**	**-10**
<5	E	E	E	E	E	E	E	E	E	E	C	A	A	A	A	A	A	A	A	A	A
5-9	E	E	E	E	E	E	E	E	E	D	C	B	A	A	A	A	A	A	A	A	A
10-14	E	E	E	E	E	E	E	E	D	D	C	B	B	A	A	A	A	A	A	A	A
15-19	E	E	E	E	E	E	E	E	D	D	C	B	B	A	A	A	A	A	A	A	A
20-24	E	E	E	E	E	E	E	D	D	D	C	B	B	B	A	A	A	A	A	A	A
25-29	E	E	E	E	E	E	D	D	D	D	C	B	B	B	B	A	A	A	A	A	A
30-34	E	E	E	E	E	D	D	D	D	D	C	B	B	B	B	B	A	A	A	A	A
35-39	E	E	E	E	E	D	D	D	D	D	C	B	B	B	B	B	A	A	A	A	A
40-44	E	E	E	E	D	D	D	D	D	D	C	B	B	B	B	B	B	A	A	A	A
45-49	E	E	E	D	D	D	D	D	D	D	C	B	B	B	B	B	B	B	A	A	A
>50	E	E	E	D	D	D	D	D	D	D	C	B	B	B	B	B	B	B	A	A	A

ATTACHMENT J-4-(D)
QUALITY OF CUSTOMER SUPPORT SERVICES

Quality of Customer Support Services will be evaluated on the timely closure of help desk calls per ATTACHMENT J-4-(D)-(1) Customer Problem Resolution Conversion Table. Closure of a customer support service is defined as 1) providing an answer to the question or concern; 2) providing a work around; or 3) identifying an application discrepancy and creating a form 1620 to document the discrepancy or requirement change. Weekend hours (5:00 pm Friday to 8:00 am Monday) do not apply against the 72-hour limit. The table values are based on the following criterion:

ADJECTIVE RATING	DEFINITIONS	PERCENT OF APPLICABLE FEE EARNED
A	In addition to 100% of the problems being closed <= 72 hours, > 15% of the problems are closed in less than 48 hours	100%
B	In addition to 100% of the problems being closed <= 72 hours, 1% to 15% of the problems are closed <= 48 hours	90%
C	100% of the problems are closed within 72 hours	80%
D	1% to 15% of the problems are closed outside the 72 hour period	50%
E	Greater than 15% of the problems are closed outside the 72 hour period	0%

(See Conversion Table J-4-(D)-(1) for complete Performance Metric conversion)

ATTACHMENT J-4-(D)-(1)
CUSTOMER PROBLEM RESOLUTION CONVERSION TABLE

Number Of Calls	**Customer Problem Resolution Number of Late Resolutions**																				
	10	**9**	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**0**	**-1**	**-2**	**-3**	**-4**	**-5**	**-6**	**-7**	**-8**	**-9**	**-10**
<5	E	E	E	E	E	E	E	E	E	E	C	A	A	A	A	A	A	A	A	A	A
5-9	E	E	E	E	E	E	E	E	E	D	C	B	A	A	A	A	A	A	A	A	A
10-14	E	E	E	E	E	E	E	E	D	D	C	B	B	A	A	A	A	A	A	A	A
15-19	E	E	E	E	E	E	E	E	D	D	C	B	B	A	A	A	A	A	A	A	A
20-24	E	E	E	E	E	E	E	D	D	D	C	B	B	B	A	A	A	A	A	A	A
25-29	E	E	E	E	E	E	D	D	D	D	C	B	B	B	B	A	A	A	A	A	A
30-34	E	E	E	E	E	D	D	D	D	D	C	B	B	B	B	B	A	A	A	A	A
35-39	E	E	E	E	E	D	D	D	D	D	C	B	B	B	B	B	A	A	A	A	A
40-44	E	E	E	E	D	D	D	D	D	D	C	B	B	B	B	B	B	A	A	A	A
45-49	E	E	E	D	D	D	D	D	D	D	C	B	B	B	B	B	B	B	A	A	A
>50	E	E	E	D	D	D	D	D	D	D	C	B	B	B	B	B	B	B	A	A	A

ATTACHMENT J-4-(E)
TIMELINESS OF PERFORMANCE

Timeliness of performance will be evaluated per ATTACHMENT J-4-(E)-(1) Milestone Schedule Performance.

ADJECTIVE RATING	DEFINITIONS	PERCENT OF APPLICABLE FEE EARNED
A	Services and products delivered per committed schedules with average days late being zero (0) and no critical milestones missed	100%
B	Services and products delivered per committed schedules with average days late being one (1) and no critical milestones missed	90%
C	Services and products delivered per committed schedules with average days late being two (2) days with no critical milestones missed	80%
D	Services and products delivered per committed schedules with average days late/critical milestones missed as follows: Average days late “3” or “4” with “0” critical milestones missed, or Average days late “0”, “1” or “2” with “1” critical milestone missed, or Average days late “0” with “2” critical milestones missed	50%
E	Services and products delivered per committed schedules with average days late/critical milestones missed as follows: Average days late “5” with “0” critical milestones missed, or Average days late “3”, “4” or “5” with “1” critical milestone missed, or Average days late “1”, “2”, “3”, “4” or “5” with “2” critical milestones missed, or Average days late >= ”0” with >= “3” critical milestones missed	0%

ATTACHMENT J-4-(E)-(1)
MILESTONE SCHEDULE PERFORMANCE TABLE

	AVERAGE WORKING DAYS MISSED					
CRITICAL MILESTONES MISSED	**0**	**1**	**2**	**3**	**4**	**5**
0	A	B	C	D	D	E
1	D	D	D	E	E	E
2	D	E	E	E	E	E
>=3	E	E	E	E	E	E

ATTACHMENT J-4-(F)
Counting and Scoring Trouble Ticket Response and Resolution Matrix for Applications and Web Services for PWS Element 5.1

The following paragraphs describe how the Applications and Web Services technical performance metric of trouble ticket response and resolution as specified in Section 5.1 of Attachment J-4-(I) will be counted and scored.

Users, including UNITeS support personnel, shall document Applications and Web Services problems or concerns through the trouble ticket system. If customers identify problems directly to UNITeS support personnel, they shall in turn open a trouble ticket.

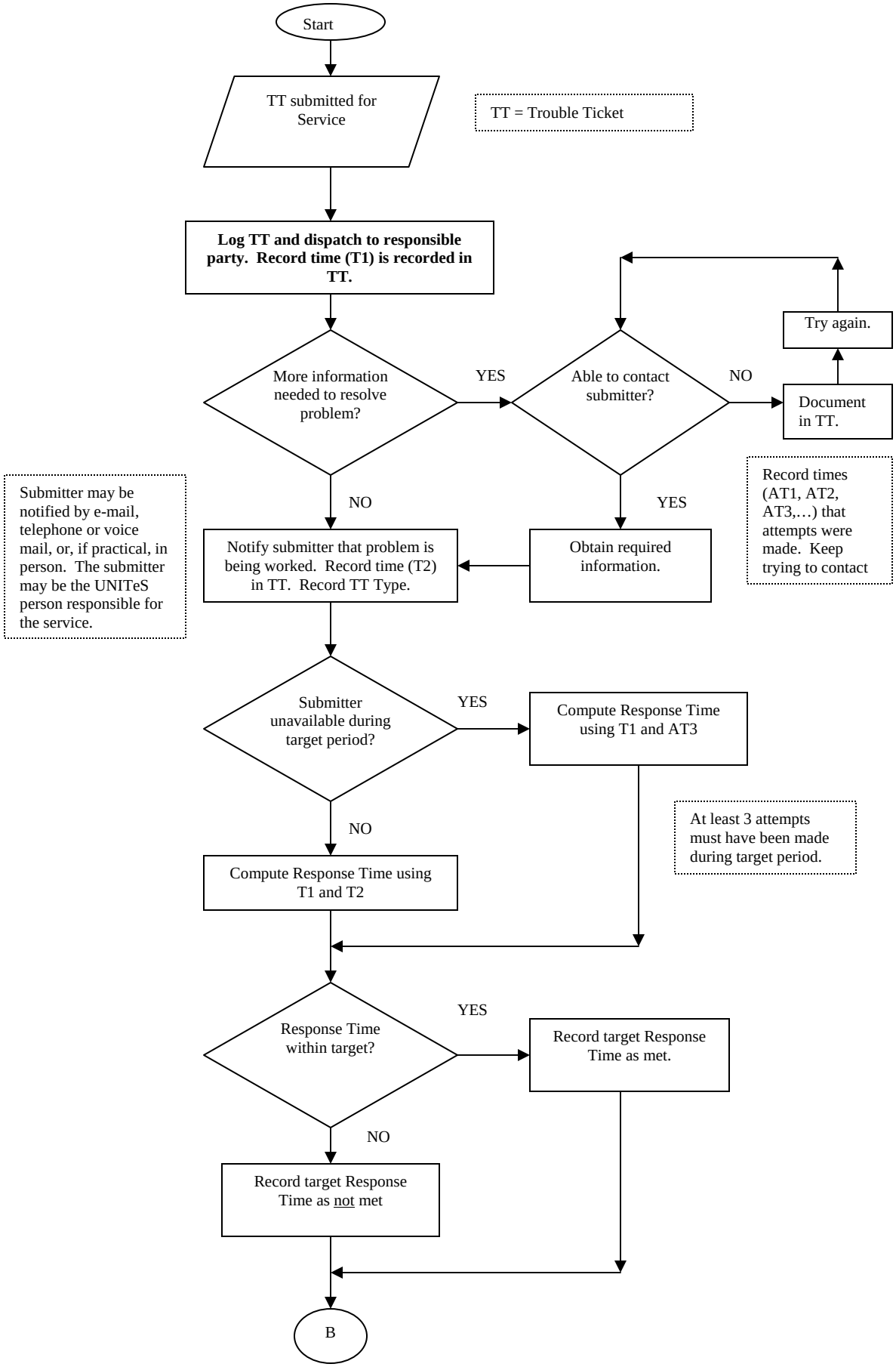
Applications and Web Services are categorized as 1, 2, or 3 (reference Appendix B, PWS) for the purpose of counting trouble ticket Response Times and Resolution Times. The contractor shall further delineate trouble tickets by types (Critical/Major, Minor, Cosmetic, or Other) according to the definitions below. Target Response Times and Resolution Times by Service Category and for Trouble Ticket type are shown in the following table.

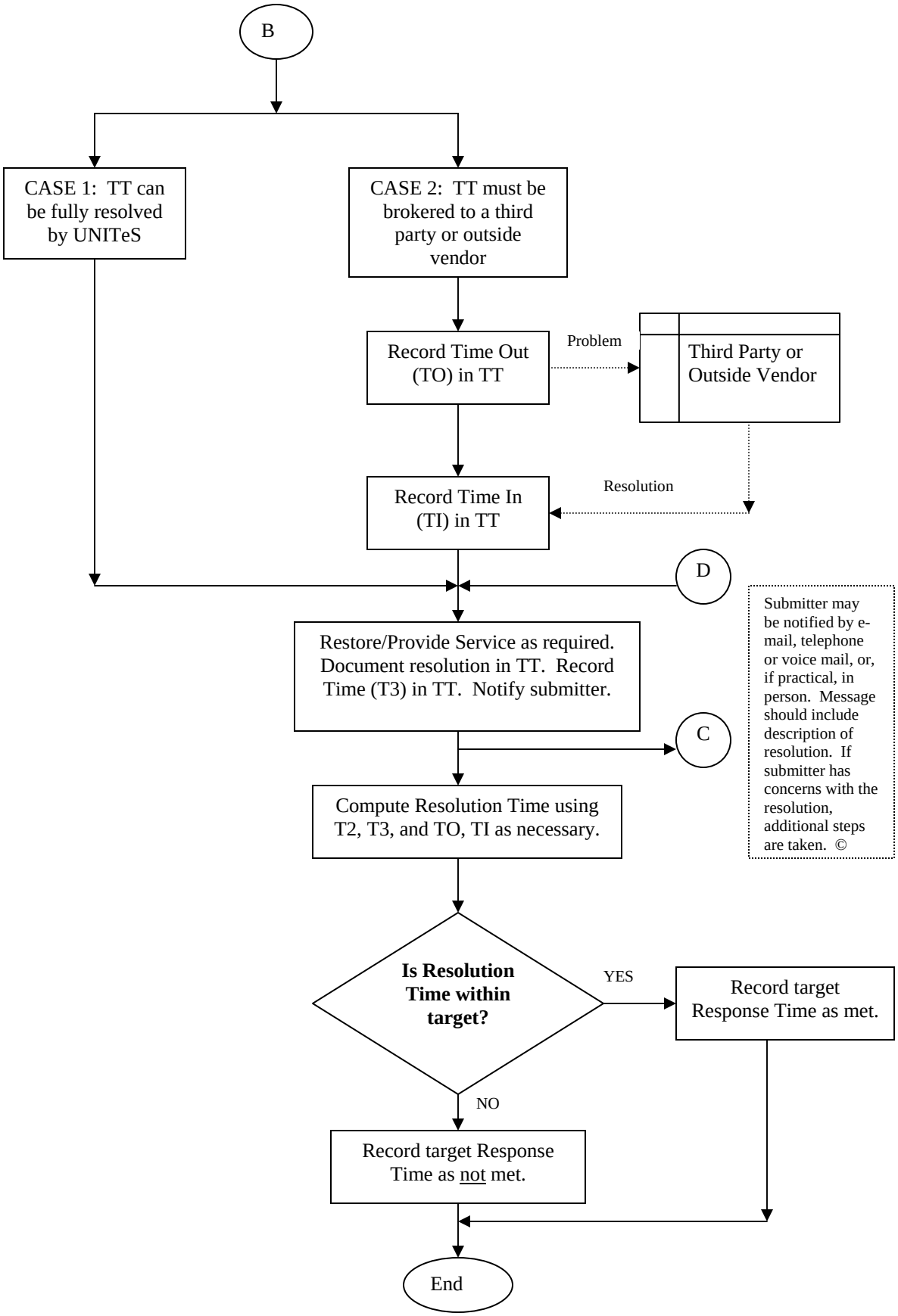
SERVICE CATEGORY		TROUBLE TICKET TYPE			
		CRITICAL/ MAJOR	MINOR	COSMETIC	OTHER
1	Target Response Time	30 min	30 min	30 min	30 min
	Target Resolution Time	2 hrs	2 business days	Next scheduled release	2 hrs
2	Target Response Time	1 hr	1 hr	1 hr	1 hr
	Target Resolution Time	1 business day	3 business days	Next scheduled release	1 business day
3	Target Response Time	2 hrs	2 hrs	2 hrs	2 hrs
	Target Resolution Time	2 business days	5 business days	Next scheduled release	2 business days

Definitions of Types:
Critical or Major – Either (1) service is not operational or unavailable to critical users/many users, or (2) service is operational, but major features are unavailable or not functioning correctly.
Minor – Service is operational, but has nuisance problems causing inconvenience or work arounds.
Cosmetic – Errors or inconsistencies in appearance or presentation, but with no impact to functionality.
Other – Miscellaneous support, such as user assistance, password reset, application access, etc.

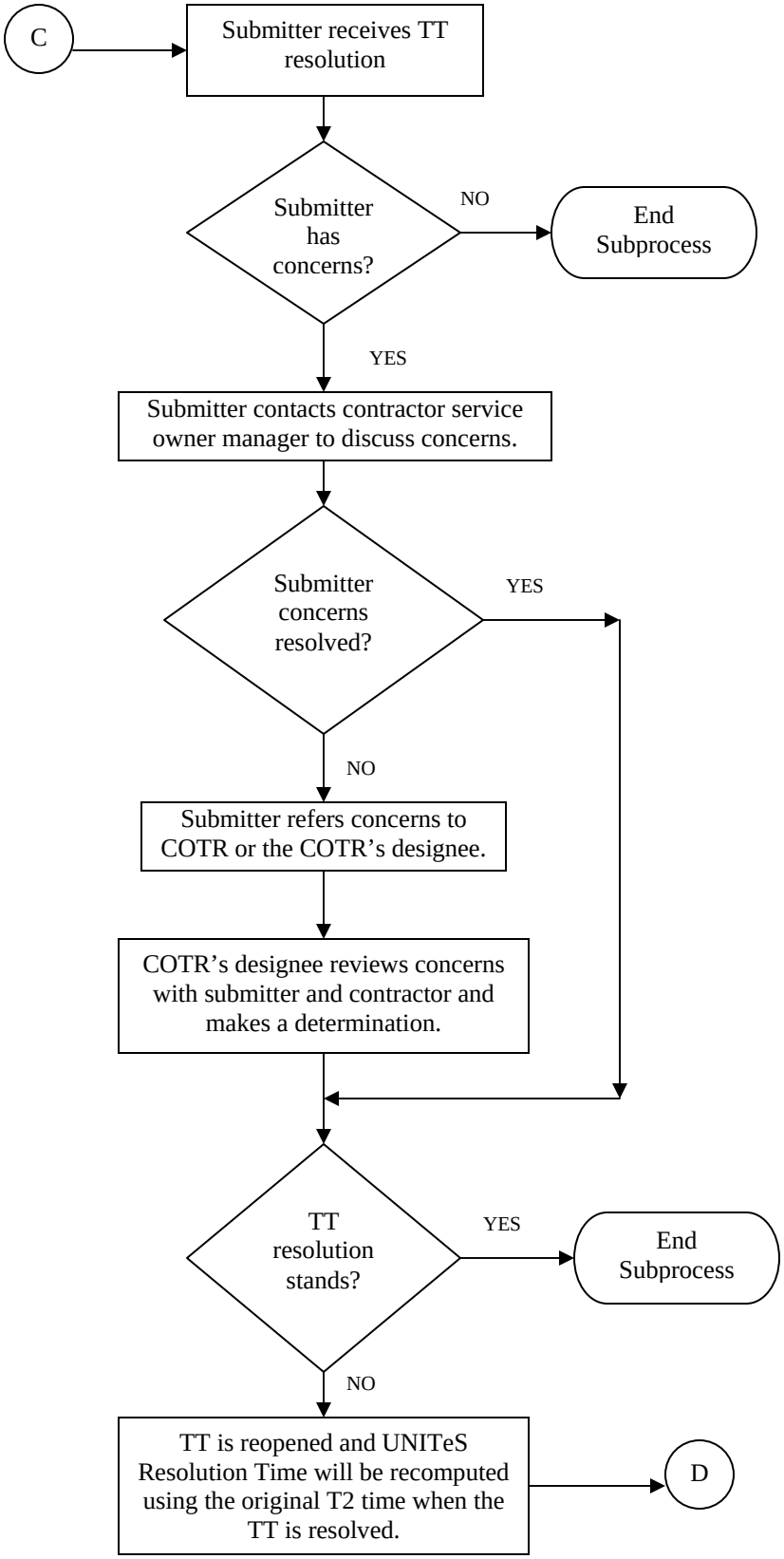
Target response times and target resolution times for each service will be determined by NASA in consultation with the contractor. Target times may be dependent upon coverage requirements. For example, target times for a given service may be category 1 during critical periods of operation, but may be category 3 at all other hours of normal operation. This would be coded as 1/3 and 3/2, where 3 represents periods of critical operation, and 2 represents normal hours of operation.

The requirements for determining response times and resolution times are depicted in the following flow diagrams.


Start
TT submitted for Service
TT = Trouble Ticket
Log TT and dispatch to responsible party. Record time (T1) is recorded in TT.
More information needed to resolve problem?
YES
Able to contact submitter?
NO
Try again.
Document in TT.
Record times (AT1, AT2, AT3,…) that attempts were made. Keep trying to contact
NO
YES
Submitter may be notified by e-mail, telephone or voice mail, or, if practical, in person. The submitter may be the UNITeS person responsible for the service.
Notify submitter that problem is being worked. Record time (T2) in TT. Record TT Type.
Obtain required information.
Submitter unavailable during target period?
YES
Compute Response Time using T1 and AT3
At least 3 attempts must have been made during target period.
NO
Compute Response Time using T1 and T2
Response Time within target?
YES
Record target Response Time as met.
NO
Record target Response Time as not met
B


B
CASE 1: TT can be fully resolved by UNITeS
CASE 2: TT must be brokered to a third party or outside vendor
Record Time Out (TO) in TT
Problem
Third Party or Outside Vendor
Record Time In (TI) in TT
Resolution
D
Restore/Provide Service as required. Document resolution in TT. Record Time (T3) in TT. Notify submitter.
C
Submitter may be notified by e-mail, telephone or voice mail, or, if practical, in person. Message should include description of resolution. If submitter has concerns with the resolution, additional steps are taken. ©
Compute Resolution Time using T2, T3, and TO, TI as necessary.
Is Resolution Time within target?
YES
Record target Response Time as met.
NO
Record target Response Time as not met.
End

RESOLVING SUBMITTER CONCERNS SUBPROCESS



SCORING TROUBLE TICKET RESPONSE AND RESOLUTION MATRIX FOR APPLICATIONS AND WEB SERVICES

Assumptions:

- Total possible score is 100.
- If the total number of trouble tickets for the performance period is low, then the contractor is performing well and this will be reflected in the score.
- Trouble ticket resolutions are given more weight than response times. The weights are 60% and 40% respectively.

The score will be determined by the following formula, where

B = base value,
X = total of response time targets met for trouble tickets closed during the performance period,
Y = total of resolution time targets met for trouble tickets closed during the performance period, and
Z = total number of trouble tickets closed during the performance period:

Score = B + (100-B)(.4X + .6Y)/Z, for Z > 0
Score = 100 for Z = 0.

Example: If B= 0
X= 95
Y= 90
Z= 100

Then score = 0 + (100-0) (.4 (95) + .6 (90)) / 100
= 100 (38 + 54)/ 100
= 92

The base values are determined according to the following table:

Number of Trouble Tickets Closed During Performance Period	Base Value
0	100
1	95
2	90
3	85
4	80
5	75
6	70
7	65
8	60
9	55
10	50
11	45
12	40
13	35
14	30
15	25
16	20
17	15
18	10
19	5
20 or more	0

Trouble ticket reporting requirements are defined in DRD 974MA-006, Reports.

PERFORMANCE SURVEILLANCE PLAN MATRIX – UNITeS – ATTACHMENT J-4-(G)		
SOW Section	**NASA insight/surveillance/deliverables**	**Frequency**
3.0 AGENCYWIDE INFORMATION SERVICES **3.1 Agency wide Applications Projects** **3.1.1 SESAAS** **3.1.2 Consolidated NPPS Operational Support** **3.1.3 Site for On-Line Learning and Resources (SOLAR)** **3.1.4 Web Time and Attendance Distribution System (WebTADS)** **3.1.5 NASA Acquisition Internet Services (NAIS)** **3.1.6 Dryden Flight Research Center (DFRC) Applications Support**	1. Review of DRD's (see distribution list) per ISO process 974MA-005 Financial Management Report 974MA-006 Reports 2. Customer Surveys 3. Review of data for financial planning and information 4. Review of Contractor Performance against Kt Rqts 5. Weekly Notes 6. Project Plans and schedules	1. Monthly (TM) Monthly (TM) 2. Monthly (TM) 3. Monthly (TM) 4. Monthly (TM) 5. Weekly (TM) 6. As needed (TM)

The surveillance methodologies specified for the each of the PWS sections in ATTACHMENT J-4-(G) are not necessarily inclusive of all insight tools available or to be used as part of the performance measurement of the contractor. The Government reserves the right to utilize additional surveillance methodologies as deemed necessary.

PERFORMANCE SURVEILLANCE PLAN MATRIX - UNITeS– ATTACHMENT J-4-(G)		
SOW Section	**NASA insight/surveillance/deliverables**	**Frequency**
3.2 Digital Television	1 Review of DRD's (see distribution list) per ISO process 974MA-005 Financial Management Report 974MA-006 Reports 2 Customer Surveys 3. Meetings documenting contractor actions 4. Program Management Reviews 5. Review of data for financial planning and information 6. Periodic walk-throughs to ensure proper practices are being adhered to 7. Review of Contractor Performance against Kt Rqts 8. Program Metrics	1. Monthly (TM) Monthly (TM) 2. Quarterly (TM) 3. Weekly (TM) 4. Monthly (TM) 5. Monthly (TM) 6. Monthly (TM) 7. Quarterly (TM) 8. Monthly (TM)

PERFORMANCE SURVEILLANCE PLAN MATRIX - UNITeS– ATTACHMENT J-4-(G)		
SOW Section	**NASA insight/surveillance/deliverables**	**Frequency**
3.3 IT Security **3.3.1 Intrusion Detection/ Incident Response** **3.3.2 NASA National Security Systems** **3.3.3 NASA Secure Sensitive but Unclassified Networks** **3.3.4 NASA Incident Response Center (NASIRC)** **3.3.5 IT Security Perimeter** **3.3.6 Secure Authentification Service**	1 Review of DRD's (see distribution list) per ISO process 974CD-001 IT Security Plan 974MA-005 Financial Management Report 974MA-006 Reports 974MA-002 Risk Management Plan 2. Meetings documenting contractor actions 3. Review of Contractor Performance against Kt Rqts 4. Trouble Ticket Reports 5. Internal/ External Audits	1. Monthly (TM) Monthly (TM) Quarterly (TM) Quarterly (TM) 2. Weekly (TM) 3. Quarterly (TM) 4. Monthly (TM) 5. As deemed appropriate (various sources)

PERFORMANCE SURVEILLANCE PLAN MATRIX - UNITeS– ATTACHMENT J-4-(G)		
SOW Section	**NASA insight/surveillance/deliverables**	**Frequency**
3.4 Data Center Services **3.4.1 Consolidation and Centralization Services** **3.4.2 Computer Systems Services** **3.4.3 Network Services** **3.4.4 Agencywide Midrange Services**	1. Periodic Review of On-line Systems 2. Review of DRD's (see distribution list) per ISO process 974MA-005 Financial Management Report 974MA-006 Reports 3. Customer Surveys 4. Meetings documenting contractor actions 5. Review of Contractor Performance against Kt Rqts 6. Program Metrics 7. Project Plans and schedules 8. Availability Report 9. Trouble Ticket Report 10. Maintenance Reports 11. Mid-range Node Book	1. Monthly (TM) 2. Monthly (TM) Quarterly (TM) 3. Quarterly (TM) 4. Weekly (TM) 5. Quarterly (TM) 6. Quarterly (TM) 7. Monthly (TM) 8. Monthly (TM) 9. Monthly (TM) 10. Monthly (TM) 11. Monthly (TM)

PERFORMANCE SURVEILLANCE PLAN MATRIX - UNITeS– J-4-(G)		
SOW Section	**NASA insight/surveillance/deliverables**	**Frequency**
3.5 Russia IT Services **3.5.1 Russian Wide Area Network (WAN)** **3.5.2 Russian Local Area Network (LAN)** **3.5.3 Russian IT Security** **3.5.4 Russian End User Support**	1. Review of DRD's (see distribution list) per ISO process 974MA-005 Financial Management Report 974MA-006 Reports 2. Review of data for financial planning and information 3. Periodic walk-throughs to ensure proper practices are being adhered to in 4. Review of Contractor Performance against Kt Rqts 5. Program Metrics	1. Monthly (TM) Monthly (TM) 2. Quarterly (COTR) 3. Daily when Russia (TM) 4. Weekly (TM) 5. Monthly (TM)

PERFORMANCE SURVEILLANCE PLAN MATRIX – UNITeS– ATTACHMENT J-4-(G)		
SOW Section	**NASA insight/surveillance/deliverables**	**Frequency**
3.6 WAN Services	1. Periodic Review of On-line Systems 2. Review of DRD's (see distribution list) per ISO process	1. Monthly (TM) 2.
3.6.1 FTS2001 Integration	974CD-002 Employee Location Listing 974CM-001 Configuration Management Plan 974LS-001 Government Property Management Plan	Quarterly (TM) Quarterly (TM) Quarterly (TM)
3.6.2 Switched Voice	974MA-001 Management Plan 974CD-001 IT Security Plan	Quarterly (TM) Quarterly (TM)
3.6.3 Video Services	974MA-005 Financial Management Report 974MA-006 Reports	Monthly (TM) Quarterly (TM)
3.6.4 Voice Services	974MA-007 Documentation 974RM-001 Operability/Maintainability Plan	Quarterly (TM) Quarterly (TM)
3.6.5 Data Services	974MA-002 Risk Management Plan	Quarterly (TM) Quarterly (TM)
3.6.6 International Services	3. Customer Surveys 4. Meetings documenting contractor actions 5. Program Management Reviews	3. Quarterly (TM) 4. Weekly (TM) 5. Monthly (TM)
3.6.7 Technical Services (Dedicated)	6. Periodic walk-throughs to ensure proper practices are being adhered to in 7. Review of Contractor Performance against Kt Rqts	6. As deemed necessary (TM) 7. Monthly (TM)
3.6.8 Directory Services	8. Program Metrics 9. Service performance availability	8. Quarterly (TM) 9. Monthly (TM)
3.6.9 IP Address Management	10. Service Utilization (e.g. number of conferences) 11. NISN Service Request status	10. Monthly (TM) 11. Weekly (TM)
3.6.10 Facsimile Broadcast Service	12. Business continuity/Disaster recovery	12. Quarterly (TM)

PERFORMANCE SURVEILLANCE PLAN MATRIX - UNITeS– ATTACHMENT J-4-(G)		
SOW Section	**NASA insight/surveillance/deliverables**	**Frequency**
3.7 Systems Management and Operations **3.7.1 Network Scheduling** **3.7.2 Network Monitoring** **3.7.3 Network Control and System Management** **3.7.4 Problem Management** **3.7.5 WAN OperationalSupport** **3.7.6 Control Centers** **3.7.7 Documentation and Configuration Management**	1. Periodic Review of On-line Systems 2. Review of DRD's (see distribution list) per ISO process 974CD-002 Employee Location Listing 974CM-001 Configuration Management Plan 974LS-001 Government Property Management Plan 974MA-001 Project Management Plan 974CD-001 IT Security Plan 974MA-005 Financial Management Report 974MA-006 Reports 974MA-007 Documentation 974RM-001 Operability/Maintainability Plan 974MA-002 Risk Management Plan 3. Customer Surveys 4. Meetings documenting contractor actions 5. Program Management Reviews 6. Periodic walk-throughs to ensure proper practices are being adhered to in 7. Review of Contractor Performance against Kt Rqts 8. Program Metrics 9. Service performance availability 10. Service Utilization (e.g. number of conferences) 11. NISN Service Request status 12. Business continuity/Disaster recovery	1. Monthly (TM) 2. Quarterly (TM) Quarterly (TM) Quarterly (TM) Quarterly (TM) Quarterly (TM) Monthly (TM) Quarterly (TM) Quarterly (TM) Quarterly (TM) Quarterly (TM) Quarterly (TM) 3. Quarterly (TM) 4. Weekly (TM) 5. Monthly (TM) 6. As deemed necessary (TM) 7. Monthly (TM) 8. Quarterly (TM) 9. Monthly (TM) 10. Monthly (TM) 11. Weekly (TM) 12. Quarterly (TM)

PERFORMANCE SURVEILLANCE PLAN MATRIX - UNITeS– ATTACHMENT J-4-(G)		
SOW Section	**NASA insight/surveillance/deliverables**	**Frequency**
3.8 Customer Support **3.8.1 Customer Support Center** **3.8.2 Service Requests** **3.8.3 User Training**	1. Review of DRD's (see distribution list) per ISO process 974MA-005 Financial Management Report 974MA-006 Reports 2. Customer Surveys 3. Meetings documenting contractor actions 4. Review of Contractor Performance against Kt Rqts 5. Trouble Ticket Reports 6. Internal/External Audits	1. Monthly (TM) Quarterly (TM) 2. Monthly (TM) 3. Weekly (TM) 4. Quarterly (TM) 5. Monthly (TM) 6. As deemed appropriate (various sources)

PERFORMANCE SURVEILLANCE PLAN MATRIX - UNITeS– ATTACHMENT J-4-(G)		
SOW Section	**NASA insight/surveillance/deliverables**	**Frequency**
5.0 MSFC INFORMATION SERVICES **5.1 MSFC Applications and Web Services** **5.1.1 Product Line Organizations** **5.1.2 Support Organizations** **5.1.3 Office of the Director and Staff Offices**	1. Periodic Review of On-line Systems 2. Review of DRD's (see distribution list) per ISO process 974MA-005 Financial Management Report 974MA-006 Reports 3. Meetings documenting contractor actions 4. Review of Contractor Performance against Kt Rqts 5. Project Plans and schedules 6. Availability Report 7. Trouble Ticket Report 8. Federal laws and Government and NASA policies regarding website development. 9. Customer Surveys	1. As needed (TM) 2. Monthly (TM) Monthly (TM) 3. As needed (TM) 4. Monthly (TM) 5. As needed (TM) 6. Monthly (TM) 7. Monthly (TM) 8. Monthly (TM) 9. Quarterly (TM)

PERFORMANCE SURVEILLANCE PLAN MATRIX – UNITeS– ATTACHMENT J-4-(G)		
SOW Section	**NASA insight/surveillance/deliverables**	**Frequency**
5.2 Computer Systems Services **5.2.1 Business, Engineering and Scientific Midrange** **5.2.2 User Owned Midrange** **5.2.3 Test Area** **5.2.4 National Space Science and Technology Center**	1. Review of DRD's (see distribution list) per ISO process 974MA-005 Financial Management Report 974MA-006 Reports 2. Customer Surveys 3. Periodic walk-throughs to ensure proper practices are being adhered to 4. Review of Contractor Performance against Kt Rqts 5. Program Metrics/Availability Report 6. Project Plans and schedules	1. Monthly (TM) Monthly (TM) 2. Monthly (TM) 3. As needed (TM) 4. Quarterly (TM) 5. Monthly (TM) 6. Quarterly (TM)

PERFORMANCE SURVEILLANCE PLAN MATRIX – UNITeS– ATTACHMENT J-4-(G)		
SOW Section	**NASA insight/surveillance/deliverables**	**Frequency**
5.3 Customer Requested Hardware Maintenance	1. Review of DRD's (see distribution list) per ISO process 974MA-005 Financial Management Report 974MA-006 Reports 2. Meetings documenting contractor actions 3. Review of data for financial planning and information 4. Review of Contractor Performance against Kt Rqts 5. Trouble Ticket Reports	1. Monthly (TM) Monthly (TM) 2. As needed (TM) 3. Monthly (TM) 4. Monthly (TM) 5. Monthly (TM)

PERFORMANCE SURVEILLANCE PLAN MATRIX – UNITeS– ATTACHMENT J-4-(G)		
SOW Section	**NASA insight/surveillance/deliverables**	**Frequency**
5.4 Telecommunications Services **5.4.1 Telephone Services** **5.4.2 Facsimile Services** **5.4.3 Other Services**	1. Review of DRD's (see distribution list) per ISO process 974MA-005 Financial Management Report 974MA-006 Reports 2. Meetings documenting contractor actions 3. Program Management Reviews 4. Periodic walk-throughs to ensure proper practices are being adhered to 5. Review of Contractor Performance against Kt Rqts	1. Monthly (TM) Monthly (TM) 2. As needed (TM) 3. As needed (TM) 4. As needed (TM) 5. Monthly (TM)

PERFORMANCE SURVEILLANCE PLAN MATRIX – UNITeS– ATTACHMENT J-4-(G)		
SOW Section	**NASA insight/surveillance/deliverables**	**Frequency**
5.5 Information Technology (IT) Security Services	1. Review of DRD's (see distribution list) per ISO process 974CD-001 IT Security Plan 974MA-005 Financial Management Report 974MA-006 Reports 974MA-002 Risk Management Plan 2. Meetings documenting contractor actions 3. Review of Contractor Performance against Kt Rqts 4. Trouble Ticket Reports 5. Internal/External Audits	1. Quarterly (TM) Monthly (TM) Quarterly (TM) Quarterly (TM) 2. Monthly (TM) 3. Quarterly (TM) 4. Quarterly (TM) 5. As deemed appropriate (Various sources)

PERFORMANCE SURVEILLANCE PLAN MATRIX – UNITeS– ATTACHMENT J-4-(G)		
SOW Section	**NASA insight/surveillance/deliverables**	**Frequency**
5.6 Documentation Repository Services	1. Periodic Review of On-line Systems 2. Review of DRD's (see distribution list) per ISO process 974MA-006 Reports 974MA-005 Financial Management Report 3. Technical Interchange Meetings 4. Periodic walk-throughs to ensure proper practices are being adhered to 5. Review of Contractor Performance against Kt Rqts 6. Customer feedback	1. As needed (TM) 2. Monthly (TM) Monthly (TM) 3. As needed (TM) 4. As needed (TM) 5. Monthly (TM) 6. Continuous (TM)

PERFORMANCE SURVEILLANCE PLAN MATRIX - UNITeS– ATTACHMENT J-4-(G)		
SOW Section	**NASA insight/surveillance/deliverables**	**Frequency**
5.7 Audio Visual Information Services **5.7.1 Content Creation** **5.7.2 Content Assembly** **5.7.3 Content Distribution**	1. Periodic Review of On-line Systems 2. Review of DRD's (see distribution list) per ISO process 974MA-005 Financial Management Report 974MA-006 Reports 974MA-007 Documentation 3. Customer Surveys/ Random Sampling 4. Meetings documenting contractor actions 5. Program Management Reviews 6. Review of data for financial planning and information 7. Review of Contractor Performance against Kt Rqts 8. Program Metrics	1. As needed (TM) 2. Monthly (TM) Monthly (TM) Monthly (TM) 3. Quarterly (TM) 4. Weekly Staff Meetings (TM) 5. Monthly (TM) 6. Monthly (TM) 7. Quarterly (TM) 8. Monthly (TM)

PERFORMANCE SURVEILLANCE PLAN MATRIX - UNITeS– ATTACHMENT J-4-(G)		
SOW Section	**NASA insight/surveillance/deliverables**	**Frequency**
5.8 IT Procurement Services	1. Periodic Review of On-line Systems 2. Review of DRD's (see distribution list) per ISO process 974MA-005 Financial Management Report 974MA-006 Reports 974MA-007 Documentation 3. Customer Surveys 4. Meetings documenting contractor actions 5. Program Management Reviews 6. Review of data for financial planning and information 7. Periodic walk-throughs to ensure proper practices are being adhered to 8. Review of Contractor Performance against Kt Rqts 9. Program Metrics	1. Monthly (TM) 2. Monthly (TM) Monthly (TM) Montly (TM) 3. Quarterly (TM) 4. Weekly Staff Meetings 5. Weekly (TM) 6. Monthly (TM) 7. Monthly (TM) 8. Quarterly (TM) 9. Monthly (TM)

PERFORMANCE SURVEILLANCE PLAN MATRIX - UNITeS– ATTACHMENT J-4-(G)		
SOW Section	**NASA insight/surveillance/deliverables**	**Frequency**
5.9 Customer Support **5.9.1 Customer Support Center** **5.9.2 Service Requests** **5.9.3 User Training**	1. Review of DRD's (see distribution list) per ISO process 974MA-005 Financial Management Report 974MA-006 Reports 2. Customer Surveys 3. Meetings documenting contractor actions 4. Review of Contractor Performance against Kt Rqts 5. Trouble Ticket Reports 6. Internal/External Audits	1. Monthly (TM) Quarterly (TM) 2. Monthly (TM) 3. Weekly (TM) 4. Quarterly (TM) 5. Monthly (TM) 6. As deemed appropriate (various sources)

PERFORMANCE SURVEILLANCE PLAN MATRIX - UNITeS– ATTACHMENT J-4-(G)		
SOW Section	**NASA insight/surveillance/deliverables**	**Frequency**
SAMPLE MATRIX	1. Periodic Review of On-line Systems 2. Review of DRD's (see distribution list) per ISO process 974CD-001 IT Security Plan 974CD-002 Employee Location Listing 974CM-001 Configuration Management Plan 974LS-001 Government Property Management Plan 974MA-001 Project Management Plan 974MA-002 Risk Management Plan 974MA-005 Financial Management Report 974MA-006 Reports 974MA-007 Documentation 974RM-001 Operability/Maintainability Plan 3. Customer Surveys 4. Meetings documenting contractor actions 5. Program Management Reviews 6. Periodic walk-throughs to ensure proper practices are being adhered to in 7. Review of Contractor Performance against Kt Rqts 8. Program Metrics 9. Service performance availability 10. Service Utilization (e.g. number of conferences) 11. NISN Service Request status 12. Business continuity/Disaster recovery	1. Monthly (TM) 2. Quarterly (TM) Quarterly (TM) Quarterly (TM) Quarterly (TM) Quarterly (TM) Monthly (TM) Quarterly (TM) Quarterly (TM) Quarterly (TM) Quarterly (TM) Quarterly (TM) 3. Quarterly (TM) 4. Weekly (TM) 5. Monthly (TM) 6. As deemed necessary (TM) 7. Monthly (TM) 8. Quarterly (TM) 9. Monthly (TM) 10. Monthly (TM) 11. Weekly (TM) 12. Quarterly (TM)

PERFORMANCE REQUIREMENTS SUMMARY/ MADRS – UNITeS		ATTACHMENT J-4-(H)	
SOW Section	**Performance Standard**	**MADR**	**WEIGHT**
3.0 AGENCYWIDE INFORMATION SERVICES	Agencywide Applications Performance Metric See Attachment J-4-(A)	See Attachment J-4-(A)*	**30%**
3.1 Agency wide Applications Projects			
3.1.1 SESAAS	Table Releases Performance Metric See Attachment J-4-(B)	See Attachment J-4-(B)*	**30%**
3.1.2 Consolidated NPPS Operational Support	Technical Support Services Performance Metric See Attachment J-4-(C)	See Attachment J-4-(C)*	**10%**
3.1.3 Site for On-Line Learning and Resources (SOLAR)			
3.1.4 Web Time and Attendance Distribution System (WebTADS)	Quality of Customer Support Services Performance Metric See Attachment J-4-(D)	See Attachment J-4-(D)*	**10%**
3.1.5 NASA Acquisition Internet Services (NAIS)			
3.1.6 Dryden Flight Research Center (DFRC) Applications Support	Timeliness of Performance Metric See Attachment J-4-(E) *If this particular standard does not apply for the evaluation period, the weight assigned to that standard will be equally distributed among the remaining standards.	See Attachment J-4-(E)*	**20%**

PERFORMANCE REQUIREMENTS SUMMARY/ MADRS - UNITeS		ATTACHMENT J-4-(H)	
SOW Section	**Performance Standard**	**MADR**	**WEIGHT**
3.2 Digital Television (DTV)	Contractor shall ensure that mutually agreed to schedules for Digital Television deliverables are adhered to.	See Attachment J-4-(E)	**100%**

PERFORMANCE REQUIREMENTS SUMMARY/ MADRS - UNITeS		ATTACHMENT J-4-(H)	
SOW Section	**Performance Standard**	**MADR**	**WEIGHT**
3.3 IT Security **3.3.1 Intrusion Detection/ Incident Response** **3.3.2 NASA National Security Systems** **3.3.3 NASA Secure Sensitive but Unclassified Networks** **3.3.4 NASA Incident Response Center (NASIRC)** **3.3.5 IT Security Perimeter** **3.3.6 Secure Authentification Services**	Contractor shall isolate IT security incidents and provide accurate reports within 4 hours of incident notification.	0%	**25%**
	Contractor shall respond to and identify any IT security incidents within 2 hours of incident notification	0%	**25%**
	Contractor shall restore affected service and update the IT Security Plan for the affected system within 24 hours	0%	**15%**
	Contractor shall disseminate vulnerability and incident information potentially adversely impacting the Agency within 1 hour of receipt.	0%	**20%**
	Contractor shall ensure that preventive measures as specified in NPD/NPG 2810.1 are adhered to.	5%	**15%**

PERFORMANCE REQUIREMENTS SUMMARY/ MADRS - UNITeS		ATTACHMENT J-4-(H)	
SOW Section	**Performance Standard**	**MADR**	**WEIGHT**
3.4 Data Center Services **3.4.1 Consolidation Services** **3.4.2 Computer Systems Services** **3.4.3 Network Services** **3.4.4 Agencywide Midrange Services**	Contractor shall provide uninterrupted systems availability (with the exception of normal maintenance windows, and outages beyond contractor control, e.g. force majure, acts of terrorism, etc.)	.5%	**20%**
	Contractor shall respond to Priority 1 RTS trouble tickets <= 2 hours.	0%	**15%**
	Contractor shall ensure that CICS transactions occur <=.5 seconds.	6%	**15%**
	Contractor shall ensure that Batch jobs are processed <= 6 minutes.	6%	**10%**
	Contractor shall ensure that TSO transactions occur <= 1 second.	3%	**10%**
	Contractor shall maintain uninterrupted midrange computer systems services (with the exception of planned maintenance windows and outages beyond contractor control, e.g., force majuere, acts of terrorism, etc.) including the requirement to maintain the functionality of the systems application regardless of total up-time	.2%	**10%**
	Contractor shall provide return-to-service for midrange computer systems within the following periods: Category 1<= 2 hours of trouble ticket initiation All other systems- <= COB the following business day after trouble ticket initiation (See Priority matrix for specific application priority classification)	2%	**10%**
	Contractor shall adhere to established schedules.	See Attachment J-4-(E)	**5%**
	Contractor shall provide move-add-change (MAC) services within <=2 days of request or within established customer notification requirements.	2%	**5%**

PERFORMANCE REQUIREMENTS SUMMARY/ MADRS - UNITeS		ATTACHMENT J-4-(H)	
SOW Section	**Performance Standard**	**MADR**	**WEIGHT**
3.5 Russia IT Services **3.5.1 Russian Wide Area Network (WAN)** **3.5.2 Russian Local Area Network (LAN)** **3.5.3 Russian IT Security** **3.5.4 Russian End User Support**	Mission WAN/Circuits shall have uninterrupted availability. (Mission WAN/Circuits shall have a MTTR of <= 2 hours. (The Government expects reimbursement on a 1:1 basis at the cost per minute for each minute of circuit outage at <21.5 minutes, or at > 21.5 but < 60 minutes = a 2:1 multiplier, or at >= 60 minutes = 4:1 multiplier) *****	.02%	**25%**
	Admin WAN/Circuits shall have uninterrupted availability. (Admin WAN/Circuits shall have a MTTR <= 4 hours (The Government expects reimbursement on a 1:1 basis at the cost per minute for each minute of circuit outage at <60 minutes, or at > 60 but <120 minutes = a 2:1 multiplier, or at >= 120 minutes = 3:1 multiplier) *****	.05%	**25%**
	For all LAN and End User support the contractor shall return to service due to discrepancies within the following periods: Category 1 <= 4 hours Category 2 = COB Moscow normal duty hours Category 3 = COB day following Moscow normal duty hours	2%	**25%**
	Contractor shall adhere to established schedules for deliverables.	See Attachment J-4-(E)	**15%**
	In the advent of an IT security incident, contractor shall restore affected services within the following periods: Disseminate vulnerability and incident information potentially impacting the Agency <= 1 hour Isolate the problem <= 2 hours Restore affected services <= 4 hours	0%	**10%**

* The prime contractor shall ensure application of these standards to the subcontract circuit provider

PERFORMANCE REQUIREMENTS SUMMARY/ MADRS - UNITeS		ATTACHMENT J-4-(H)	
SOW Section	**Performance Standard**	**MADR**	**WEIGHT**
3.6 WAN Services **3.6.1 FTS2001 Integration** **3.6.2 Switched Voice** **3.6.3 Video Services** **3.6.4 Voice Services**	Contractor shall complete move-add-change (MAC) requests for all services as specified in the NISN Services Document or as specified in mutually agreed upon schedules.	See Attachment J-4-(E)	**35%**
3.6.5 Data Services **3.6.6 International Services** **3.6.7 Technical Services (Dedicated)**	Contractor shall ensure that services are provided in accordance with performance specifications as documented in the NISN Services Document or in accordance with mutually agreed upon performance specifications.	2%	**50%**
3.6.8 Directory Services **3.6.9 IP Address Management** **3.6.10 Facsimile Broadcast Service**	Contractor shall provide accurate detailed cost estimates for each NISN Service Request. Actual costs for each request shall be within +/- 10% of original estimate regardless of number of requests.	5%	**15%**

PERFORMANCE REQUIREMENTS SUMMARY/ MADRS - UNITeS		ATTACHMENT J-4-(H)	
SOW Section	**Performance Standard**	**MADR**	**WEIGHT**
3.7 Systems Management and Operations **3.7.1 Network Scheduling**	Contractor shall schedule and coordinate activities within 10 calendar days and in accordance with mission freeze policies.	.5%	**20%**
3.7.2 Network Monitoring **3.7.3 Network Control and System Management**	Contractor shall provide service restoration and meet impacts to service metrics as defined for NISN services in the NISN Services Document.	.5%	**20%**
3.7.4 Problem Management **3.7.5 WAN Mission Operations**	Contractor shall provide an uninterrupted password-protected, on-line activities and outage notification system.	2%	**20%**
3.7.6 Control Centers **3.7.7 Documentation and Configuration Management**	Contractor shall provide uninterrupted on-line reporting of system metrics.	2%	**20%**
	Contractor shall provide password changes <= 30 minutes of receipt of request.	2%	**20%**

PERFORMANCE REQUIREMENTS SUMMARY/ MADRS - UNITeS		ATTACHMENT J-4-(H)	
SOW Section	**Performance Standard**	**MADR**	**WEIGHT**
3.8 Customer Support **3.8.1 Help Desk**	Contractor shall provide help desk support <=5 minutes of initial call.	0%	**30%**
3.8.2 Service Orders **3.8.3 User Training**	Contractor shall refer IT security incidents to the Incident Detection System (IDS) <=5 minutes of notification.	2%	**30%**
	Contractor shall provide user training in accordance with customer requirements.	0%	**20%**
	Contractor shall ensure that all calls responded to or referred to other entities are closed prior to issuing trouble ticket closeout notification.	2%	**20%**

PERFORMANCE REQUIREMENTS SUMMARY/ MADRS - UNITeS		ATTACHMENT J-4-(H)	
SOW Section	**Performance Standard**	**MADR**	**WEIGHT**
5.0 MSFC INFORMATION SERVICES **5.1 MSFC Applications and Web Services** **5.1.1 Product Line Organizations**	Contractor shall provide trouble ticket response/resolution by application category as specified in the Applications and Web Services Table.	See Attachment J-4-(F)	**45%**
5.1.2 Support Organizations	Contractor shall adhere to established schedules for deliverables.	See Attachment J-4-(E)	**45%**
5.1.3 Office of the Director and Staff Offices	Contractor shall respond to inquiries regarding status of specific application/web services projects <= 24 hours of Technical Monitor request. .	0%	**10%**

PERFORMANCE REQUIREMENTS SUMMARY/ MADRS - UNITeS		ATTACHMENT J-4-(H)	
SOW Section	**Performance Standard**	**MADR**	**WEIGHT**
5.2 Computer Systems Services 5**.2.1 Business, Engineering and Scientific** **5.2.2 User Owned Midrange**	Contractor shall maintain uninterrupted midrange computer systems services (with the exception of planned maintenance windows and outages beyond contractor control, e.g., force majuere, acts of terrorism, etc.) including maintaining the functionality of the systems application regardless of total up-time. (Even if the system is technically "up", if the application is unresponsive or functionality is significantly decreased, the system is considered down.)	.2%	**30%**
	Contractor shall provide return-to-service for midrange computer systems within the following periods: Category 1<= 2 hours of trouble ticket initiation All other systems- <= COB the following business day after trouble ticket initiation (See Priority matrix for specific application priority classification)	2%	**30%**
	Contractor shall adhere to established schedules.	See Attachment J-4-(E)	**20%**
	Contractor shall provide move-add-change (MAC) services within <=2 days of request or within established customer notification requirements.	2%	**20%**

PERFORMANCE REQUIREMENTS SUMMARY/ MADRS - UNITeS		ATTACHMENT J-4-(H)	
SOW Section	**Performance Standard**	**MADR**	**WEIGHT**
5.3 Customer Requested Hardware Maintenance	Contractor shall maintain individual Mean-time-to-Repair in accordance with the following: Category 1 Items <= 2 hours (24 hours X 7 days) Category 2 Items <= 2 business hours* Category 3 Items <= 4 business hours*	2%	**60%**
	Contractor shall provide response to trouble ticket initiation <= 30 minutes of notification.	2%	**20%**
	Contractor shall provide help desk support <= 5 minutes of initial call. *Business hours are considered to be 6:00 AM to 6:00 PM Monday through Friday of the time zone where the hardware is physically located.	2%	**20%**

PERFORMANCE REQUIREMENTS SUMMARY/ MADRS - UNITeS		ATTACHMENT J-4-(H)	
SOW Section	**Performance Standard**	**MADR**	**WEIGHT**
5.4 Telecommunications Services **5.4.1 Telephone Services** **5.4.2 Facsimile Services** **5.4.3 Other Services**	Contractor shall maintain systems availability (with the exception of planned maintenance windows and outages beyond contractor control, e.g., force majure, acts of terrorism, etc.)	.05%	**60%**
	Contractor shall provide move-add-change (MAC) services <= 2 hours of request.	2%	**10%**
	Contractor shall provide new user pagers, cellular telephones and radios <= 2 business days of request.	2%	**10%**
	Contractor shall provide mean-time-to-repair for pagers, cellular telephones, and radios <=2 business days.	2%	**10%**
	Contractor shall provide return-to-service for telephones within <=2 hours of trouble ticket initiation.	2%	**10%**

PERFORMANCE REQUIREMENTS SUMMARY/ MADRS - UNITeS		ATTACHMENT J-4-(H)	
SOW Section	**Performance Standard**	**MADR**	**WEIGHT**
5.5 Information Technology (IT) Security Services	Contractor shall isolate IT security incidents and provide accurate reports within 4 hours of incident notification.	0%	**25%**
	Contractor shall respond to and identify any IT security incidents within 2 hours of notification.	0%	**25%**
	Contractor shall restore affected service and update the IT Security Plan for the affected system within 24 hours.	0%	**15%**
	Contractor shall disseminate vulnerability and incident information potentially adversely impacting MSFC within 1 hour of receipt.	0%	**20%**
	Contractor shall ensure that preventive measures as specified in NPD/NPG 2810.1 are adhered to.	5%	**15%**

PERFORMANCE REQUIREMENTS SUMMARY/ MADRS - UNITeS		ATTACHMENT J-4-(H)	
SOW Section	**Performance Standard**	**MADR**	**WEIGHT**
5.6 Documentation Repository Services	Contractor shall ensure uninterrupted Server/ Application availability (with the exception of planned maintenance windows and outages beyond contractor control, e.g force majure, acts of terrorism, etc.).	.2%	**40%**
	Contractor shall ensure that data input is accurate.	3%	**30%**
	Contractor shall ensure that deliverables are provided in accordance with established schedules.	See Attachment J-4-(E)	**30%**

PERFORMANCE REQUIREMENTS SUMMARY/ MADRS - UNITeS		ATTACHMENT J-4-(H)	
SOW Section	**Performance Standard**	**MADR**	**WEIGHT**
5.7 Audio Visual Information Services			
5.7.1 Content Creation	Contractor shall adhere to established schedules for delivery of required products.	See Attachment J-4-(E)	**30%**
5.7.2 Content Assembly			
5.7.3 Content Distribution	Contractor shall provide quality products per applicable specifications and technical standards, and be comparable to commercial offerings.	2%	**40%**
	Contractor shall adhere to all applicable procedural and regulatory guidance, such as Government Printing Office (GPO) requirements, NASA/ MSFC regulations, NASA Research Announcement (NRA) requirements, and copyright laws.	2%	**30%**

PERFORMANCE REQUIREMENTS SUMMARY/ MADRS - UNITeS		ATTACHMENT J-4-(H)	
SOW Section	**Performance Standard**	**MADR**	**WEIGHT**
5.8 IT Procurement Services	Contractor shall adhere to established schedules for delivery of required products.	See Attachment J-4-(E)	**100%**

PERFORMANCE REQUIREMENTS SUMMARY/ MADRS - UNITeS		ATTACHMENT J-4-(H)	
SOW Section	**Performance Standard**	**MADR**	**WEIGHT**
5.9 Customer Support **5.9.1 Help Desk**	Contractor shall provide help desk support <=5 minutes of initial call.	2%	**15%**
5.9.2 Service Requirements			
5.9.3 User Training	Contractor shall provide user training in accordance with customer requirements.	2%	**15%**
	Contractor shall produce accurate data files to be calculated by: $\frac{\text{\# files produced - \# files late or in error}}{\text{\# files provided}}$	2%	**35%**
	Contractor shall deliver required products in accordance with established schedules.	See Attachment J-4-(E)	**35%**

ATTACHMENT J-4-(I)

Unified NASA Information Technology Services (UNITeS)
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Required Service	Performance Standard	MADR	Quarterly Evaluation Data
3.1 Agencywide Applications Projects **1**	Agencywide Applications Performance Metric See Attachment J-4-(A)	See Attachment J-4-(A)	
2	Table Releases Performance Metric See Attachment J-4-(B)	See Attachment J-4-(B)	
3	Technical Support Services Performance Metric See Attachment J-4-(C)	See Attachment J-4-(C)	
4	Quality of Customer Support Services See Attachment J-4-(D)	See Attachment J-4-(D)	

3.1 (Con't) **5**	Timeliness of Performance See Attachment J-4-(E)	See Attachment J-4-(D)	

ATTACHMENT J-4-(I)
Unified NASA Information Technology Services (UNITeS)
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Required Service	Performance Standard	MADR	Quarterly Evaluation Data
3.2 Digital Television **1**	Contractor shall ensure that mutually agreed to schedules for Digital Television deliverables are adhered to.	See Attachment J-4-(E)	

ATTACHMENT J-4-(I)
Unified NASA Information Technology Services (UNITeS)
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Required Service	Performance Standard	MADR	Quarterly Evaluation Data
3.3 IT Security **1**	Contractor shall isolate IT security incidents and provide accurate reports within 4 hours of incident notification.	0%	
2	Contractor shall respond to and identify any IT security incidents within 2 hours of incident notification	0%	
3	Contractor shall restore affected service and update the IT Security Plan for the affected system within 24 hours	0%	
4	Contractor shall disseminate vulnerability and incident information potentially adversely impacting the Agency within 1 hour of receipt.	0%	
5	Contractor shall ensure that preventive measures as specified in NPD/NPG 2810.1 are adhered to.	5%	

ATTACHMENT J-4-(I)
Unified NASA Information Technology Services (UNITeS)
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Required Service	Performance Standard	MADR	Quarterly Evaluation Data
3.4 Data Center Services **1**	Contractor shall provide uninterrupted systems availability (with the exception of normal maintenance windows, and outages beyond contractor control, e.g. force majure, acts of terrorism, etc.)	.5%	
2	Contractor shall respond to Priority 1 RTS trouble tickets <= 2 hours.	0%	
3	Contractor shall ensure that CICS transactions occur <=.5 seconds.	6%	
4	Contractor shall ensure that Batch jobs are processed <= 6 minutes.	6%	

3.4 (Con't) **5**	Contractor shall ensure that TSO transactions occur <= 1 second.	3%	
6	Contractor shall maintain uninterrupted midrange computer systems services (with the exception of planned maintenance windows and outages beyond contractor control, e.g., force majure, acts of terrorism, etc.) including the requirement to maintain the functionality of the systems application regardless of total up-time	.2%	
7	Contractor shall provide return-to-service for mid-range computer systems within the following periods: Category 1<= 2 hours of trouble ticket initiation All other systems- <= COB the following business day after trouble ticket initiation (See Priority matrix for specific application priority classification)	2%	

3.4 (Con't) **8**	Contractor shall adhere to established schedules.	See Attachment J-4-(E)	
9	Contractor shall provide move-add-change (MAC) services within <=2 days of request or within established customer notification requirements.	2%	

ATTACHMENT J-4-(I)
Unified NASA Information Technology Services (UNITeS)
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Required Service	Performance Standard	MADR	Quarterly Evaluation Data
3.5 Russia Services **1**	Mission WAN/Circuits shall have uninterrupted availability. (Mission WAN/Circuits shall have a MTTR of <= 2 hours. (The Government expects reimbursement on a 1:1 basis at the cost per minute for each minute of circuit outage at <21.5 minutes, or at > 21.5 but < 60 minutes = a 2:1 multiplier, or at >= 60 minutes = 4:1 multiplier) *****	.02%	
2	Admin WAN/Circuits shall have uninterrupted availability. (Admin WAN/Circuits shall have a MTTR <= 4 hours (The Government expects reimbursement on a 1:1 basis at the cost per minute for each minute of circuit outage at <60 minutes, or at > 60 but <120 minutes = a 2:1 multiplier, or at >= 120 minutes = 3:1 multiplier) *****	.05%	

3.5 (Con't) **3**	For all LAN and End User support the contractor shall return to service due to discrepancies within the following periods: Category 1 <= 4 hours Category 2 = COB Moscow normal duty hours Category 3 = COB day following Moscow normal duty hours	2%	
4	Contractor shall adhere to established schedules for deliverables.	See Attachment J-4-(E)	
5	In the advent of an IT security incident, contractor shall restore affected services within the following periods: Disseminate vulnerability and incident information potentially impacting the Agency <= 1 hour Isolate the problem <= 2 hours Restore affected services <= 4 hours	0%	

The prime contractor shall ensure application of these standards to the subcontract circuit provider.

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Unified NASA Information Technology Services (UNITeS)
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Required Service	Performance Standard	MADR	Quarterly Evaluation Data
3.6 WAN Services **1**	Contractor shall complete move-add-change (MAC) requests for all services as specified in the NISN Services Document or as specified in mutually agreed upon schedules.	5%	
2	Contractor shall ensure that services are provided in accordance with performance specifications as documented in the NISN Services Document or in accordance with mutually agreed upon performance specifications.	2%	
3	Contractor shall provide accurate detailed cost estimates for each NISN Service Request. Actual costs for each request shall be within +/- 10% of original estimate regardless of number of requests.	5%	

ATTACHMENT J-4-(I)
Unified NASA Information Technology Services (UNITeS)
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Required Service	Performance Standard	MADR	Quarterly Evaluation Data
3.7 Network Management and Operations **1**	Contractor shall schedule and coordinate activities within 10 calendar days and in accordance with mission freeze policies.	.5%	
2	Contractor shall provide service restoration and meet impacts to service metrics as defined for NISN services in the NISN Services Document.	.5%	
3	Contractor shall provide an uninterrupted password-protected, on-line activities and outage notification system.	2%	
4	Contractor shall provide uninterrupted on-line reporting of system metrics.	2%	
5	Contractor shall provide password changes <= 30 minutes of receipt of request.	2%	

ATTACHMENT J-4-(I)
Unified NASA Information Technology Services (UNITeS)
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Required Service	Performance Standard	MADR	Quarterly Evaluation Data
3.7 Customer Support **1**	Contractor shall provide help desk support <=5 minutes of initial call.	0%	
2	Contractor shall refer IT security incidents to the Incident Detection System (IDS) <=5 minutes of notification.	2%	
3	Contractor shall provide user training in accordance with customer requirements	0%	
4	Contractor shall ensure that all calls responded to or referred to other entities are closed prior to issuing trouble ticket closeout notification.	2%	

ATTACHMENT J-4-(I)
Unified NASA Information Technology Services (UNITeS)
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Required Service	Performance Standard	MADR	Quarterly Evaluation Data
5.1 MSFC Applications and Web Services **1**	Contractor shall provide trouble ticket response/resolution by application category as specified in the Applications and Applications Services Table.	See Attachment J-4-(F)	
2	Contractor shall adhere to established schedules for deliverables.	See Attachment J-4-(E)	
3	Contractor shall respond to inquiries regarding status of specific application/web services projects <= 24 hours of Technical Monitor request.	0%	

ATTACHMENT J-4-(I)
Unified NASA Information Technology Services (UNITeS)
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Required Service	Performance Standard	MADR	Quarterly Evaluation Data
5.2 Computer Systems Services **1**	Contractor shall maintain uninterrupted midrange computer systems services (with the exception of planned maintenance windows and outages beyond contractor control, e.g., force majuere, acts of terrorism, etc.) including maintaining the functionality of the systems application regardless of total up-time. (Even if the system is technically "up", if the application is unresponsive or functionality is significantly decreased, the system is considered down.)	.2%	
2	Contractor shall provide return-to-service for mid-range computer systems within the following periods: Category 1<= 2 hours of trouble ticket initiation All other systems- <= COB the following business day after trouble ticket initiation (See Priority matrix for specific application priority classification)	2%	

5.2 (Con't) **3**	Contractor shall adhere to established schedules.	See Attachment J-4-(E)	
4	Contractor shall provide move-add-change (MAC) services within <=2 days of request or within established customer notification requirements.	2%	

ATTACHMENT J-4-(I)
Unified NASA Information Technology Services (UNITeS)
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Required Service	Performance Standard	MADR	Quarterly Evaluation Data
5.3 Customer Requested Hardware Maintenance **1**	Contractor shall maintain individual Mean-time-to-Repair in accordance with the following: Category 1 Items <= 2 hours (24 hours X 7 days) Category 2 Items <= 2 business hours* Category 3 Items <= 4 business hours* *Business hours are considered to be 6:00 AM to 6:00 PM Monday through Friday of the time zone where the hardware is physically located.	2%	
2	Contractor shall provide response to trouble ticket initiation <= 30 minutes of notification.	2%	
3	Contractor shall provide help desk support <= 5 minutes of initial call.	2%	

ATTACHMENT J-4-(I)
Unified NASA Information Technology Services (UNITeS)
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Required Service	Performance Standard	MADR	Quarterly Evaluation Data
5.4 Telecommunications Services **1**	Contractor shall maintain systems availability (with the exception of planned maintenance windows and outages beyond contractor control, e.g., force majure, acts of terrorism, etc.)	.05%	
2	Contractor shall provide move-add-change (MAC) services <= 2 hours of request.	2%	
3	Contractor shall provide new user pagers, cellular telephones and radios <= 2 business days of request.	2%	
4	Contractor shall provide mean-time-to-repair for pagers, cellular telephones, and radios <=2 business days.	2%	
5	Contractor shall provide return-to-service for telephones within <=2 hours of trouble ticket initiation.	2%	

ATTACHMENT J-4-(I)
Unified NASA Information Technology Services (UNITeS)
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Required Service	Performance Standard	MADR	Quarterly Evaluation Data
5.5 Information Technology (IT) Security Services **1**	Contractor shall isolate IT security incidents and provide accurate reports within 4 hours of incident notification.	0%	
2	Contractor shall respond to and identify any IT security incidents within 2 hours of notification.	0%	
3	Contractor shall restore affected service and update the IT Security Plan for the affected system within 24 hours.	0%	
4	Contractor shall disseminate vulnerability and incident information potentially adversely impacting MSFC within 1 hour of receipt.	0%	
5	Contractor shall ensure that preventive measures as specified in NPD/NPG 2810.1 are adhered to.	5%	

ATTACHMENT J-4-(I)
Unified NASA Information Technology Services (UNITeS)
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( )

Required Service	Performance Standard	MADR	Quarterly Evaluation Data
5.6 Documentation Repository Services **1**	Contractor shall ensure uninterrupted Server/ Application availability (with the exception of planned maintenance windows and outages beyond contractor control, e.g force majure, acts of terrorism, etc.).	.2%	
2	Contractor shall ensure that data input is accurate.	3%	
3	Contractor shall ensure that deliverables are provided in accordance with established schedules.	See Attachment J-4-(E)	

ATTACHMENT J-4-(I)
Unified NASA Information Technology Services (UNITeS)
Quarterly/Semi-Annual Performance Evaluation Summary
( )

Required Service	Performance Standard	MADR	Quarterly Evaluation Data
5.7 Audio Visual Information Services **1**	Contractor shall adhere to established schedules for delivery of required products.	See Attachment J-4-(E)	
2	Contractor shall provide quality products per applicable specifications and technical standards, and be comparable to commercial offerings.	2%	
3	Contractor shall adhere to all applicable procedural and regulatory guidance, such as Government Printing Office (GPO) requirements, NASA/ MSFC regulations, NASA Research Announcement (NRA) requirements, and copyright laws.	2%	

ATTACHMENT J-4-(I)
Unified NASA Information Technology Services (UNITeS)
Quarterly/Semi-Annual Performance Evaluation Summary
( )

Required Service	Performance Standard	MADR	Quarterly Evaluation Data
5.8 IT Procurement Services	Contractor shall adhere to established schedules for delivery of required products	See Attachment J-4-(E)	

ATTACHMENT J-5

UNITeS CPAF EVALUATION PLAN

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- B. Scoring System
- C. Award Fee Percentage Conversion
- D. Weighting
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- A. Monitor's Instructions
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ATTACHMENT A-3 - Definition of Adjective Ratings

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I. SUMMARY

The purpose of this plan is to provide guidelines and to establish the criteria and methodology for evaluating the contractor's performance against the Performance Work Statement under contract NAS8-**TBD**. This plan was prepared in accordance with NASA Headquarters "Award Fee Contracting Guide" dated June 1994 and MWI 5116.1 and NASA's Award Fee Policy as stated in the NASA FAR Supplement.

A. Description of Contract

NAS8-**TBD** is a completion form services/ indefinite delivery contract with a base term of 3-years, and two 1-year priced options. The contract is managed by the Marshall Space Flight Center's (MSFC's) Office of the Chief Information Officer (CIO) to provide Unified NASA Information Technology Services (UNITeS), consisting of the following:

1. Agencywide Information Services: These services include IT security, National Security Systems, wide area network, control center, data center, applications, Digital Television (DTV), Russia IT support, and customer services.
2. Integrated Financial Management Program (IFMP) Integration Services: These services are provided to the IFMP Integration Project Office (IPO) at MSFC. These services include infrastructure support, module project support, and operations and sustaining support.
3. Marshall Space Flight Center (MSFC) Services: These services include IT systems support for programs and projects for which MSFC is responsible. These services include applications software, web, midrange computer systems, telecommunications, IT security, audiovisual information, documentation repository, hardware maintenance, IT procurement, and customer support.

B. Contract Fee Structure

The contract utilizes a Cost-Plus-Award-Fee (CPAF)/Indefinite Delivery structure. A performance evaluation process established in accordance with NASA Headquarters "Award Fee Contracting Guide" dated June 1994 and conforming to MWI 5116.1 is utilized to support the determination of contractor award fee for all elements of the Performance Work Statement. As part of this process, objective performance standards have been developed to assist in evaluating the contractor's performance for PWS sections 3.0 and 5.0. These standards are delineated as part of ATTACHMENT J-4, Performance Measurement Standards. Although performance evaluation is conducted each contract quarter, evaluation for fee purposes is prepared and submitted semiannually to the Performance Evaluation Board (PEB).

C. Evaluation Organization

The Government Performance Evaluation Organization is shown in Attachment A-1. Monitors assess and document the contractor's performance by describing relevant examples of strengths and weaknesses (excluding objective measurement criterion) of actual performance measured against the evaluation criteria described in Section II below. The technical monitors utilize the performance indicators and resource utilization information shown in ATTACHMENT J-4, Performance Measurement Standards, and this plan to measure and evaluate contract performance. The COTR functions as the Award Fee Coordinator and receives and reviews the monitors' written reports and prepares a composite report and presentation to the PEB. The award fee is determined by the Fee Determination Official after receipt of the PEB's report and recommendations.

Detailed functions and responsibilities of the monitor and coordinator are included in Section IV of this plan.

D. Appointment Letter

The letter utilized to appoint the evaluation monitors is included in Attachment A-2.

II. EVALUATION CRITERIA

The contractor's performance will be evaluated in terms of Achievement, Objective Measurement, Business Management, and Cost Control as defined in the following paragraphs:

A. Achievement Criterion

Achievement is the measure of the contractor's technical expertise and ability to manage and accomplish the contract scope of work in a timely and high-quality manner, while exercising proper control over the use and expenditures of available resources.

In order to provide a meaningful evaluation, the achievement criterion is subdivided into five subcriteria. The rationale and subcriterion descriptions are as follows:

1. Program Management

Program management reflects overall contract leadership and direction. This subcriterion addresses overall contract management by considering the following:

- management structure including key personnel
- delegation of authority and lines of communication
- local autonomy and corporate support

- staffing plan and adherence thereto
- effect of attrition on work performance
- soundness of management decisions
- planning, estimating and organizing for individual tasks, as well as supervising and coordinating all tasks
- procedures and plans for receiving work, scheduling, assigning, processing, controlling and completing the work
- flexibility in adjusting to necessary changes in planning and execution, whether these changes originate with the contractor or the Government
- productivity improvement and quality enhancement initiatives including quality performance metrics
- coordination, communication, responsiveness, and cooperativeness with NASA, contractors, users, and others
- self evaluation and recognition by the contractor of his own strengths and weaknesses
- timely and effective management initiatives for planning and implementing program operating cost/funding constraints and/or changes

2. Quality of Work Performed

This subcriterion addresses the quality of work performed in accomplishing the tasks specified by the contract scope of work, including an assessment of the following:

- assessment, verification, and understanding of requirements
- technical initiative, innovation, and thoroughness in such activities as analysis, design, test, checkout, design correction, acceptance, sustaining engineering, configuration management, and documentation
- adherence to established procedures, practices, and regulatory requirements
- technical support and technical problem solving including problem identification, processing, statusing and resolution
- quality assurance
- an assessment of the degree to which the products and services meet user requirements

Safety will be measured in terms of the contractor's compliance with current contract requirements for system/industrial/occupational safety evaluation, controls implementation, reporting, and documentation. Particular attention will be directed toward safety awareness and effectiveness of effort.

[Note: Safety Performance Evaluation Criteria and Performance Recognition Procedures are included in the contract as Section H.12.]

In addition to the above evaluation criteria, the evaluation will consider the impacts of a major breach of safety or security. For evaluation purposes, an overall fee determination of zero may be made for any evaluation period in which there is a major

breach of safety or security, regardless of contractor performance in the other evaluation factors. In evaluating a major breach of safety or security, factors leading into the breach as well as the contractor's subsequent actions will be taken into consideration. Reference "Major Breach of Safety or Security" clause for definitions of major breach of safety or security.

3. Use of Resources

This subcriterion evaluates the contractor's use of resources available to accomplish work requirements including manpower, materials, equipment, space, and subcontractors. It considers the following:

- availability of adequate numbers of qualified personnel to perform work requirements including training considerations
- appropriateness and mix of skills used in the performance of mission requirements
- training and cross-utilization of skills
- assignment of personnel to utilize their talents in mission accomplishment
- effective use of equipment, building space, facilities, and other available resources
- care of NASA equipment
- equipment maintenance
- housekeeping
- logistics support and configuration management

4. Timeliness of Performance

Timeliness is the characteristic of achievement that assesses and evaluates the accomplishment or completion of an assigned task within an established period of time. Quality product output and services, effective and efficient utilization of resources, and technical competence of the highest standards must be maintained concurrently with timely responsiveness. The following items are considered in this subcriterion:

- timely achievement of scheduled milestones
- assignment of priorities and resources to meet milestones and schedules
- timely completion and delivery of the results of studies, analyses, or other tasks which may not be specifically identified prior to the start of a particular evaluation period

5. Customer Satisfaction

Customer satisfaction is used to evaluate the contractor's performance from a perspective other than technical performance. Customer satisfaction surveys will be provided by the Contractor at the closing of all service requests and trouble tickets, as well as on a yearly basis for major IT projects, and will evaluate the following areas:

- timelineness/responsiveness
- utilization of resources
- communications
- professionalism
- other

B. Objective Measurement

As part of the award fee evaluation process, the objective standards established for PWS sections 3.0 and 5.0 will be utilized to assist in measuring the technical performance of the contractor. This procedure is more specifically described in ATTACHMENT J-4 and Section III.B. below.

C. Business Management Criterion

Business Management is the major criterion for evaluating the contractor's performance in complying with contract provisions and administering business decisions affecting the contract.

In order to provide a meaningful evaluation, the business management criterion is subdivided into two subcriteria as follows:

1. Business Decisions Affecting the Contract

The contractor's management proficiency and effectiveness on business-oriented obligations are vital to contract performance. Flaws or weaknesses in the business management can affect overall performance of the contract.

This subcriterion assesses the contractor's management initiative and effectiveness in areas of policies and procedures and general business requirements of the contract. The following factors are included:

- management decisions, policies, procedures, practices, and changes thereto that affect contract cost and/or performance
- effectiveness and control of major subcontractors, vendors, and intra-company work orders
- procurement practices (purchasing and subcontracting)

- property accountability and administration
- salary and wage administration
- overtime control
- paid absence rate
- voluntary attrition
- proposal quality (including adequate details and basis of estimate) and timeliness in response to Government-directed changes
- accuracy and adequacy of record keeping
- Mentor-protégé' program status (if any)

2. Compliance with Contract Provisions

Compliance with the contract clauses, general and special provisions, and directed actions under the contract terms are evaluated in this subcriterion. This includes an assessment of the following:

- the contractor's compliance with the overall agreements contained in the contract including accurate and timely submittal of reports and requests for special information
- adherence to pertinent MSFC, NASA, Federal, State, and local regulations
- personnel administration, labor relations, affirmative action plans, and Equal Employment Opportunity including retention and hiring practices for minorities and women
- security provisions
- small, disadvantaged, and minority business performance
- technology utilization and transfer
- compliance regulations relating to the environment

D. Cost Control Criterion

Cost control is the criterion for measuring the contractor's ability to develop and adhere to cost plans; control the various elements of cost for maximum effectiveness; provide visibility of costs; make cost adjustments within funding limitations; and adhere to funding guidelines and constraints. Cost Control evaluation includes the following subcriteria:

1. Adjustments to Cost/Funding Constraints and Information and Visibility

This subcriterion evaluates the contractor's ability to: economize and provide service in a low cost environment; prepare and implement cost plans within funding guidelines and constraints; and provide continuing visibility of expended efforts. The following are typical factors to be addressed in the evaluation of this subcriterion:

- recognition and response to funding limitations
- recurring and one-time innovative actions taken to achieve economy in the performance of services and delivery of products
- activities initiated to increase productivity within the existing workforce
- accuracy of cost projections, tracking, and reporting
- timely development and presentation of planned versus actual cost data
- budget and financial methodology
- voucher reconciliation
- accuracy of cost data on contract/configuration changes
- special economic analyses and trade studies

2. Variances in Negotiated Cost and Negotiated Rates

This subcriterion evaluates the contractor's ability to perform mission requirements within negotiated costs and negotiated rates. Due to stringent time constraints for conducting performance evaluations following the end of six-month periods, initial cost submissions should reflect actual costs for the first five months and estimated costs for the sixth month. Actual costs for the sixth-month period should be provided prior to the semiannual PEB Meeting. Deferred and/or unaccomplished work and costs not under the contractor's control will be considered, as well as the following factors:

- cost control measures
- initiative and ingenuity demonstrated in minimizing the cost effect of any program changes
- cost saving initiatives
- administration of salaries and wages and resulting rates while providing proper skills and mix
- actions initiated to control direct labor, overhead, subcontractor, other direct, and general and administrative costs
- explanation of variances to determine whether incurred costs are within or outside the contractor's control

III. ADJECTIVE RATING, SCORING, AWARD FEE PERCENT, CRITERIA WEIGHTING, AND SPECIAL EMPHASIS

A. Adjective Rating

Attachment A-3 defines the prescribed adjective ratings to be utilized in the performance evaluation of the subjectively evaluated portions of the PWS. The contract provides the conversion from adjective rating to numerical score and corresponding award fee percentage.

B. Scoring System

The COTR will assign an adjective rating and a numerical score at the criteria and subcriteria levels for all of the subjectively evaluated areas of the PWS and utilize these ratings and scores to establish an award fee earned amount in accordance with the methodology described below. This weighted scoring system is utilized to derive an overall award fee earned amount.

In order to facilitate the calculation of earned award fee for both the subjectively and objectively measured PWS sections, Table 1 below will be utilized to establish the potential award fee available during each evaluation period for PWS sections 2.0, 3.0, 4.0, and 5.0. These percentages shall remain unchanged throughout the life of the contract unless changed by bilateral modification.

Table 1
PWS Relative Weight Matrix

PWS Section	Applicable Percentage
2.0 Program Management	40
3.0 Agencywide Information Services	20
4.0 IFMP Integration Services	20
5.0 MSFC Information Services	20

Upon obtaining the potential award fee pool for each PWS section (2.0, 3.0, 4.0, and 5.0) by application of the above percentages, the COTR will further apply the percentages below to determine the applicable award fee pool for each of the areas of performance to be evaluated:

Table 2
Evaluation Area Weighting

PWS Section	Measurement Areas	Weights
2.0 Program Management		
	Achievement Criterion	60%
	Business Decisions	15%
	Cost Control	25%
		100%
3.0 Agencywide	Objective Criterion	60%
Information Services	Business Decisions	15%
	Cost Control	25%
		100%
4.0 IFMP		
	Achievement Criterion	60%
	Business Decisions	15%
	Cost Control	25%
		100%
5.0 MSFC Information	Objective Criterion	60%
Services	Business Decisions	15%
	Cost Control	25%
		100%

The percentages established above for the objective criterion for PWS sections 3.0 and 5.0 will also equate to an applicable potential award fee for these areas. The weights contained in ATTACHMENT J-4, Table A-2, will then be utilized to establish the potential award fee pool for technical performance for each of the PWS sub-sections of 3.0 (3.1 through 3.8) and 5.0 (5.1 through 5.9). Actual performance against the standards established in ATTACHMENT J-4 will then be utilized to determine the the award fee earned for each of these PWS sub-sections. All earned award fee for these areas will be utilized as part of the overall award fee evaluation process for the semi-annual reporting period.

C. Award Fee Percentage Conversion

The overall numerical score for each of the subjectively measured PWS sections is converted to an award fee percentage according to the chart in Attachment A-6.

D. Special Emphasis

As determined by the Government, areas requiring special attention may be designated as emphasis areas and may be assigned a portion of the available award fee for special evaluation periods. This portion of the award fee will be awarded based on performance in the designated emphasis area.

IV. EVALUATORS AND THEIR FUNCTION

A. Monitor's Instructions

The Monitor is expected to provide a factual evaluation of each criterion and subcriterion within his/her designated area. It is incumbent upon the Monitor to acquire data to substantiate why the contractor's performance is a strength or weakness by maintaining a daily knowledge of contractor performance in accordance with ATTACHMENT J-4, review of output production and reports, observations, problem resolution, discussion with the contractor, interface with the IT Manager of the principal organizations, and meetings with users. Information required for evaluation purposes that is not readily available from existing sources should be discussed with the COTR and written reports initiated as necessary to provide essential evaluation documentation. The Monitor will also utilize ATTACHMENT J-4-(I), UNITeS Quarterly/Semi-Annual Performance Evaluation Summary to assist in providing performance measurement for the objectively measured sections of the PWS.

Following the end of each quarterly evaluation period, the Monitor prepares a written evaluation relating factors under consideration to the specified evaluation criteria. Each Monitor maintains open communication with the contractor counterpart to permit mutual full understanding of progress under the contract.

Principal organizations for which the contractor provides support also have an opportunity to provide input to the quarterly evaluations. The users may submit written or oral points to be considered in the contractor evaluation process through the Monitors or the COTR or the IT Manager for their respective organization. It is expected that the Monitor will contact the corresponding users and IT Managers to solicit their observations on a regular basis.

Strengths and weaknesses are to be stated in a manner to convey a clear understanding of the performance. Significant strengths and weaknesses are to be clearly delineated. Factors evaluated as needing improvement will require detailed review each period until the required level of performance is attained by the contractor.

B. Award Fee Coordinator Instructions

The COTR functions as the Award Fee Coordinator and has overall responsibility for evaluating the contractor's performance, preparation of the composite report to the PEB, and presentation of the evaluation results to the PEB. The COTR works closely with the Monitors to assure the evaluation process is equitably and systematically performed.

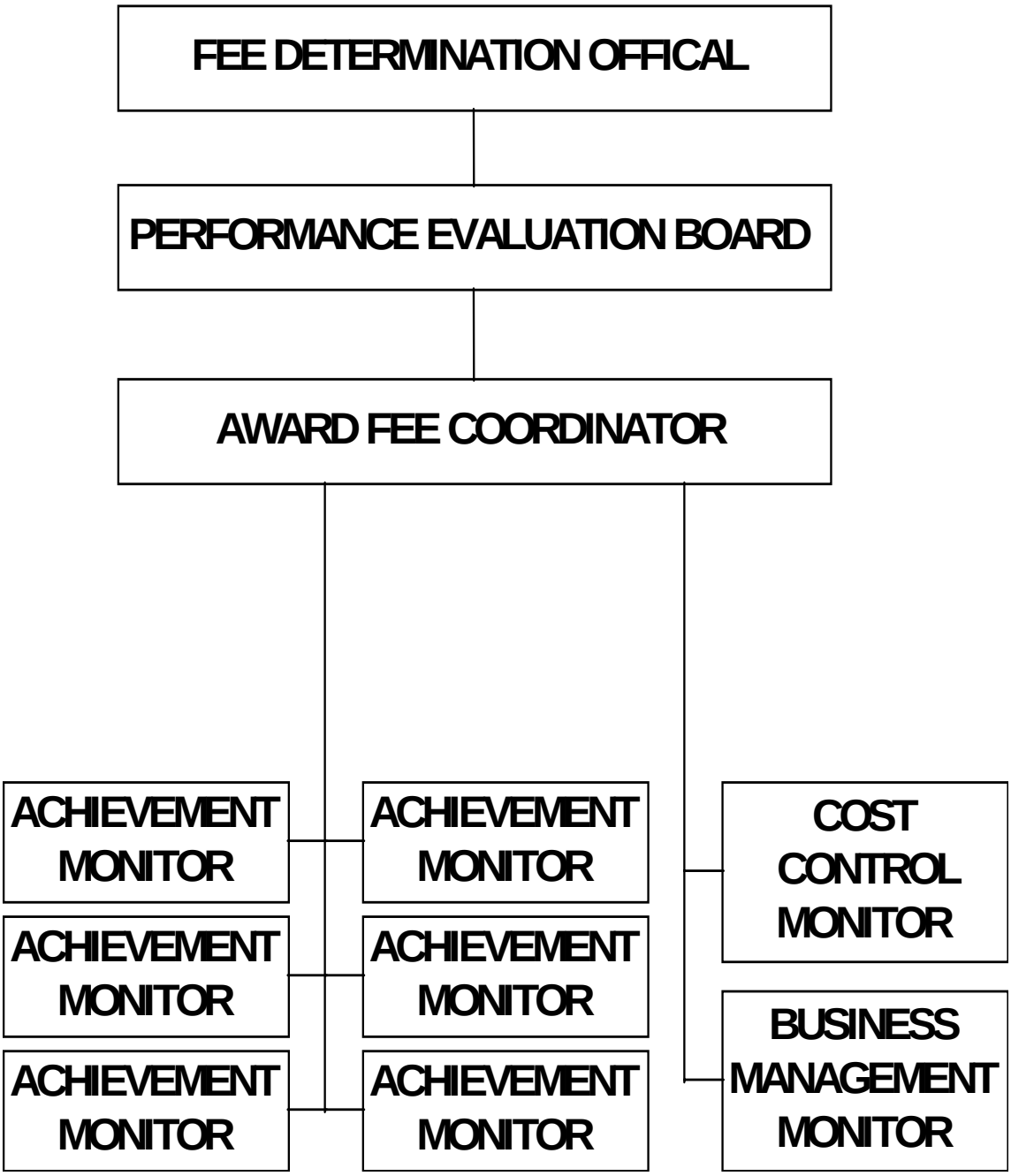
The COTR receives and reviews the Monitor's written reports and discusses the reports with each Monitor as required to gain a full understanding of the evaluation. The reports are provided to the contractor, and a quarterly evaluation meeting is held with the Monitors, COTR, contractor personnel, and representatives from user organizations.

A composite evaluation report is prepared on a semiannual basis and forwarded to the PEB Secretary.

V. REPORTING

A quarterly written performance evaluation report is prepared by the Monitors and furnished to the COTR. A semiannual performance evaluation report and presentation to the PEB is prepared by the COTR. This report includes a summary of strengths and weaknesses for each evaluation criterion; recommended ratings for each criterion and for the total performance utilizing the weighting factors, adjective, and numerical ratings described in Section III; and award fee recommended for the period. The COTR report and presentation charts are forwarded to the PEB Secretary. NASA Headquarters “Award Fee Contracting Guide” dated June 1994 and MWI 5116.1 provide detailed instructions concerning the structure of the Monitor and COTR reports and supporting documentation required.

ATTACHMENT A-1
PERFORMANCE EVALUATION ORGANIZATION



ATTACHMENT A-2

APPOINTMENT LETTER

TO: Distribution

FROM: [designated COTR]

SUBJECT: Appointment of Performance Evaluation Monitor for UNITeS Contract, NAS8-**TBD**

Pursuant to the responsibility and authority vested in me as Contracting Officer's Technical Representative (COTR) for management of Contract NAS8-**TBD**, I, [COTR], do hereby appoint and constitute _____ as a duly authorized Monitor of the performance of the Unified NASA Information Technology Services (UNITeS) contract with **TBD.**

Monitor's Responsibilities

a. The Monitor will assume, for evaluation purposes, that the area of evaluation under his cognizance is of equal importance to areas assigned to other monitors. Therefore, each Monitor will develop an evaluation plan for his specific area of evaluation in which milestones, events, or other relevant items may be weighted in a manner best suited to the circumstances.

b. Each Monitor will evaluate contractor performance within the confines of his area of evaluation by providing a brief narrative report consisting primarily of strengths and weaknesses with significant strengths and weaknesses clearly delineated.

c. Evaluation will be conducted on a quarterly basis. Quarterly Monitor reports will be submitted according to a schedule provided by the COTR.

d. Monitors will be responsible for maintaining appropriate working files of information utilized in the evaluation process throughout the life of the contract.

Operational Assistance to the COTR

Monitors will provide operational assistance and support to the COTR in the management and utilization of resources used under the contract. Specifically, the appointed Monitors will:

a. Establish and maintain a working relationship with the contractor that will be conducive to good business environment and stimulate free exchange of relevant information.

b. Monitor all aspects of the work, interpret data and assigned portions of the contract scope of work, clarify requirements, and otherwise assist the contractor to understand the nature and extent of the work assigned. Differences of opinion will be referred to the COTR for resolution.

c. Establish priorities and sequence of work, as appropriate.

d. Notify the COTR of any irregularities that may disrupt service or constitute violations of labor laws or other applicable statutes or regulations.

This authorization does not include the power to execute or agree to any contract modification or to attempt to resolve any dispute concerning a question of fact arising under the contract, but is limited to the duties specified herein.
This appointment and its authority shall become effective immediately and shall remain in full force and effect until completion of this contract or until rescinded in writing by me, or my successor, or other duly constituted authority.

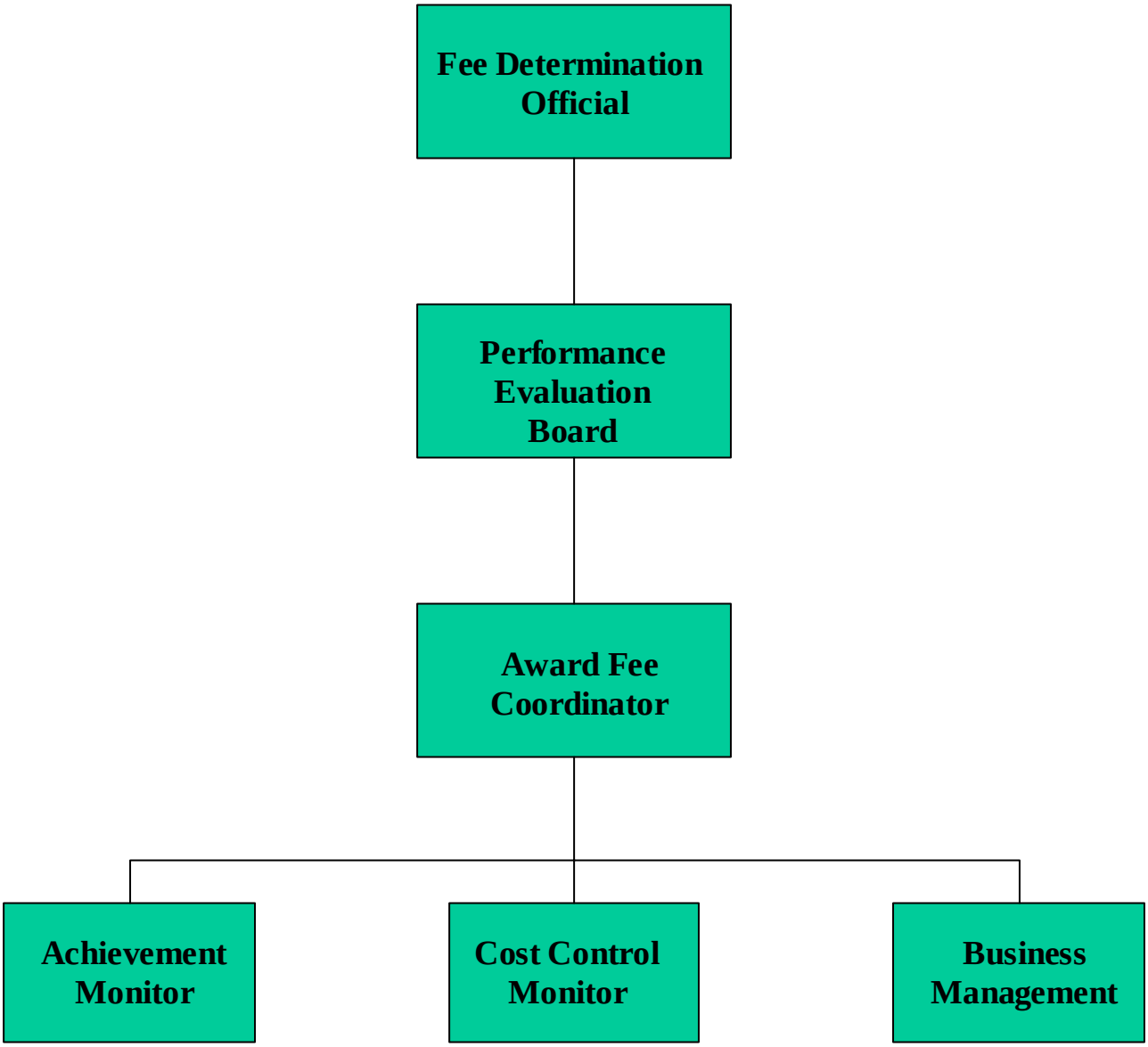
[COTR's Name]
Contracting Officer's Technical Representative
Contract NAS8-**TBD**

ATTACHMENT A-3
DEFINITION OF ADJECTIVE RATINGS

Excellent	Of exceptional merit; exemplary performance in a timely, efficient, and economical manner; very minor (if any) deficiencies with no adverse effect on overall performance.
Very Good	Very effective performance; fully responsive to contract; requirements accomplished in a timely, efficient, and economical manner for the most part. Only minor deficiencies.
Good	Effective performance; fully responsive to contract requirements; reportable deficiencies, but with little identifiable effect on overall performance.
Satisfactory	Meets or slightly exceeds minimum acceptable standards; adequate results. Reportable deficiencies with identifiable, but not substantial, effects on overall performance.
Poor/Unsatisfactory	Does not meet minimum acceptable standards in one or more areas; remedial action required in one or more areas; deficiencies in one or more areas which adversely affect overall performance.

ATTACHMENT A-4

Office of the CIO Performance Evaluation of Contract NAS8-TBD (UNITeS)
Organization and Responsibility Flow Chart



- Program Management
- Quality of Work Performed
- Use of resources
- Timeliness of Performance
- Customer Satisfaction
- Objective Criterion

- Adjustments to Cost/Funding Constraints and Information and Visibility
- Variances in Negotiated
- Cost and Negotiated Rates

- Business Decisions Affecting the Contract
- Compliance with Contract Provisions

PEB/Award Fee Process Flow

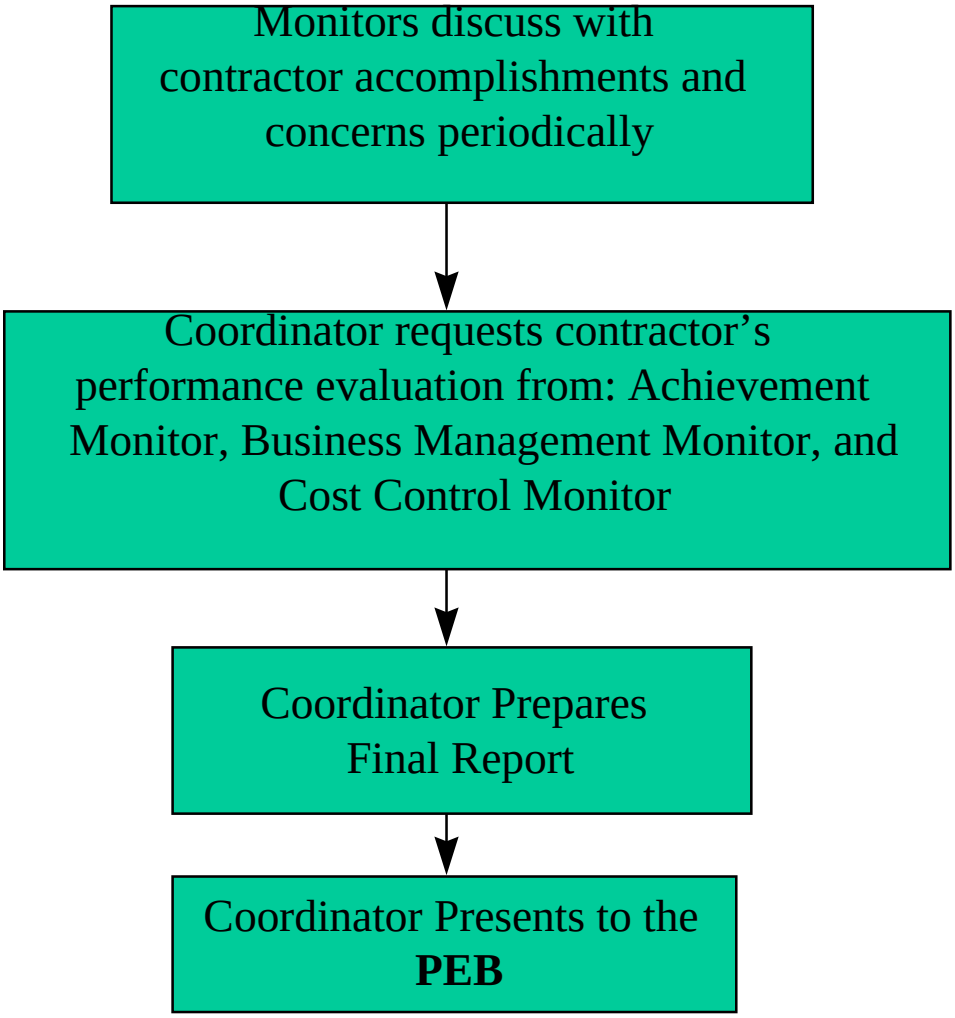


Fig. 2

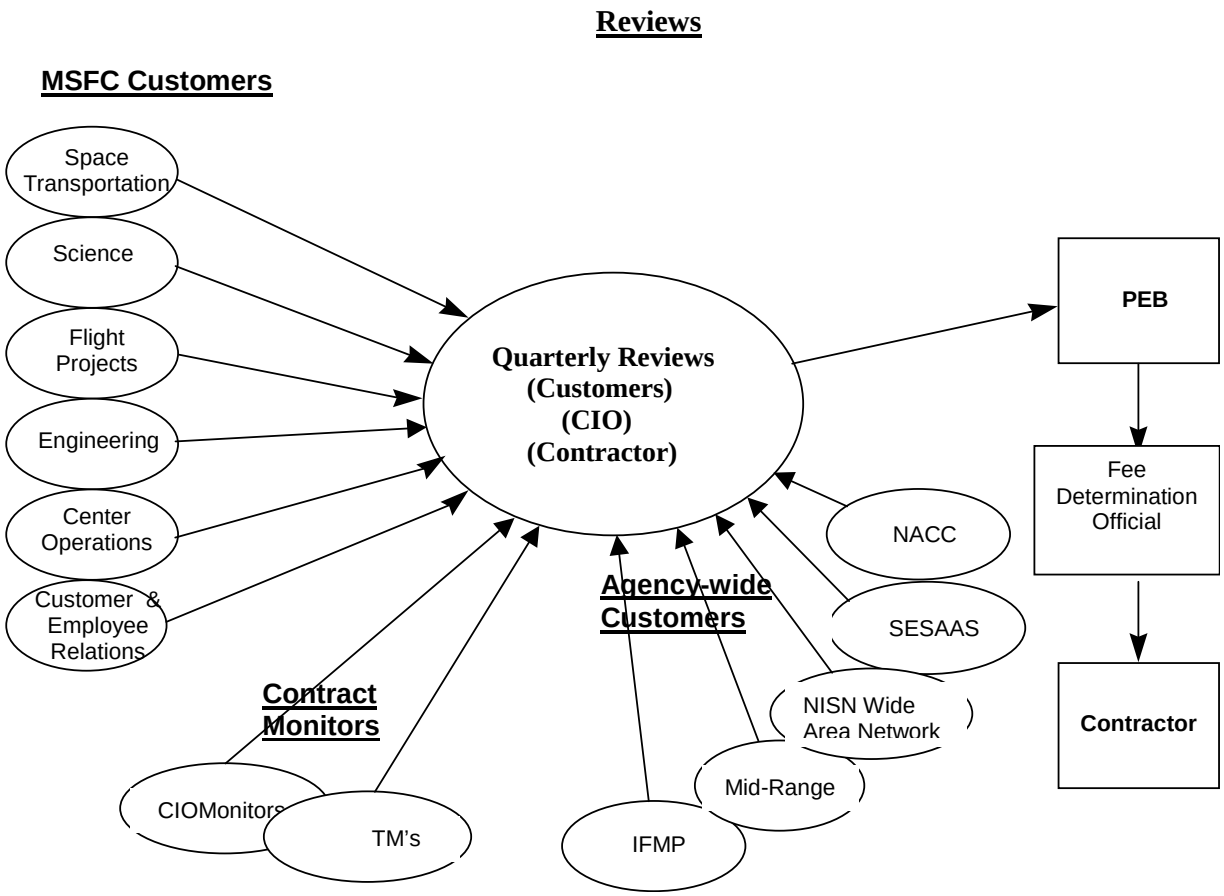

Reviews
MSFC Customers
Space Transportation
Science
Flight Projects
Engineering
Center Operations
Customer & Employee Relations
Quarterly Reviews
(Customers)
(CIO)
(Contractor)
PEB
Fee Determination Official
Contractor
NACC
SESAAS
NISN Wide Area Network
Mid-Range
IFMP
Agency-wide Customers
Contract Monitors
CIOMonitors
TM's

Fig. 3

CUSTOMER SATISFACTION SURVEY FORM
ATTACHMENT A-5

PWS Element_____
Technical Monitor _____/_____ Evaluation Period _____

TIMELINESS/RESPONSIVENESS

Comments:

Score (0-30 points) _____

UTILIZATION OF RESOURCES

Comments:

Score (0-30 points) _____

COMMUNICATIONS

Comments:

Score (0-20 points) _____

PROFESSIONALISM

Comments:

Score (0-20 points) _____

OTHER

Comments:

Score (0-20 points) _____

Total Assessment Score Score (0-100 points) _____

CUSTOMER SATISFACTION

In assessing the Contractor's overall performance for each evaluation period under the UNITeS contract, each service requestor, Trouble Ticket initiator, and TM responsible for major IT projects will be responsible for evaluating the Contractor's performance in the areas of Timeliness/Responsiveness, Professionalism, Utilization of Resources and Communications and Other. These evaluation surveys will be provided by the contractor at the closing of each service request or Trouble Ticket for each quarter and semi-annual period of contract performance and the returned surveys will be compiled by the contractor into a format suitable for provision to the COTR for use in evaluating the contractor's customer satisfaction performance. In assigning numerical scores to each of these categories, the evaluator is requested to utilize the following definitions:

A. Timeliness/Responsiveness: Assess the Contractor's overall ability to perform the required effort within the time period required to achieve customer requirements. Any delays attributable to the Contractor's inability to perform that were within the Contractor's control should also be assessed.

B. Utilization of Resources: Assess the Contractor's overall ability to successfully utilize the existing personnel, equipment, financial or facilities (or other areas as applicable) resources to achieve the desired objectives, or the ability to obtain the necessary resources to accomplish the objectives.

C. Communications: Assess the Contractor's overall ability to successfully communicate with customers, subcontractors or other applicable personnel in achieving the desired objectives. Any failures in communications resulting in the inability to achieve objectives should be reflected.

D. Professionalism: Assess the Contractor's overall ability to successfully interact with customers, how well the Contractors displayed a cooperative and positive demeanor and how well the Contractor represented the Government in performance of the effort.

E. Other: The other category will be used to assess contractor performance beyond expected levels of performance and to take into account extenuating circumstances leading to levels of performance in which the maximum score for a particular category could not be given. The total combined score of the completed survey will in no instance exceed a total of 100 points.

Submittal of completed survey forms are important in determining the contractor's earned fee for the applicable period.

CUSTOMER SATISFACTION RATING TABLE

ADJECTIVE RATING	DEFINITIONS	NUMERICAL SCORING AVERAGE
Excellent	Exceptional performance. No significant problems encountered.	95-100 points
Very Good + Very Good Very Good -	Performance which demonstrates overall competence and fulfillment of contract requirement. Quality of overall performance outbalances any problem encountered.	92-94 points 88-91 points 85-87 points
Good + Good Good -	Performance which shows reasonable fulfillment of contract requirements. As a whole, overall performance quality is not adversely affected by problems encountered.	82-84 points 78-81 points 75-77 points
Fair + Fair Fair -	Performance deficient in accomplishing contract requirement. Problems outweigh areas of quality performance.	72-74 points 68-71 points 65-67 points
Poor + Poor Poor -	Performance without substantive merit.	<= 64 points

ATTACHMENT A-6

AWARD FEE CONVERSION TABLE

Adjective Rating	Numerical Rating	Award Fee Percent
Excellent	91-100	91-100
Very Good	81-90	81-90
Good	71-80	71-80
Satisfactory	61-70	61-70
Poor/Unsatisfactory	<61	0

ATTACHMENT J-6

MAKE OR BUY PLAN

The Make or Buy Plan submitted with the Contractors proposal is hereby incorporated by reference

ATTACHMENT J-8

GOVERNMENT-FURNISHED PROPERTY

Attachment J-8, List of Government-Furnished Property can be obtained at the following MSFC website: http://unites.nasa.gov, and is hereby incorporated by reference.

ATTACHMENT J-9

INSTALLATION-PROVIDED PROPERTY AND SERVICES

In addition to the items specified in Clause G.10, 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 onsite 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. Instrumentation, Calibration and Repair, and Metrology
Calibration and Metrology services for portable, commercial test equipment.

b. Photography
Photographic support services.

c. Transportation
Day shift taxi for office personnel transportation around MSFC.

d. Reproduction - Printing
Reproduction services for black and white large engineering prints. Quick copying machines will also be provided.

e. Security
Base security services.

f. Medical
(1) Ambulance service.
(2) Physical examinations for certifications as required by NASA/MSFC regulations.

g. Refuse Collection
Refuse collection.

j. Food Service
In addition to normal-hour cafeteria privileges, snack bars and vending machines are available.

j. Mail Service
On-post mail service will be limited to a single onsite location.

k. Safety Equipment
Special safety equipment will be provided; however, personal safety items, i.e., gloves, goggles, hats, coveralls, shoes, etc., will not be Government-furnished.

l. Vehicle Maintenance
Maintenance and gasoline for Government-owned vehicles.

m. Janitorial Services
Janitorial services and supplies for the Government provided facilities.

n. Electrical Motors
Servicing and repairs, exclusive of controls.

o. Supplies, Materials, and Spare Parts
From Government Stores Stock (MSFC Supply - Federal Groups 13 through 99) standard supplies and materials will be made available to Contractors.

p. Tools
Special tools and equipment as required. Hand tools will not be Government-furnished. (Personal tools will be provided by the Contractor.)

q. ODIN Desktop Services
Workstations, networks, servers and supporting infrastructure.

r. Installation Provided Property/Equipment
Attachment J-9, Installation Provided Property/Equipment, can be obtained at the following MSFC website: http://unites.nasa.gov, and is hereby incorporated by reference.

ATTACHMENT J-10

APPLICABLE REGULATIONS AND PROCEDURES

In addition to the regulations and procedures identified elsewhere in this Request for Proposal, the following regulations and procedures, and the latest revision thereto are applicable to the Contractor in performing this contract. For proposal purposes, utilize the latest available version. 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 for NASA under this contract.

EXECUTIVE ORDER

14 CFR 1221.1	NASA Seal, NASA Insignia, NASA Logotype, NASA Program Identifiers, NASA Flags, and the Agency's Unified Visual Communications System, dated February 7, 1996

OMB CIRCULARS

Circular A-130	Management of Federal Information Resources

NASA POLICY DIRECTIVES

NASA directives are available from the nasa online directives information system (nodis): http://nodis3.gsfc.nasa.gov/library/main_lib.html

NPD 1383.1	Release and Management of Audiovisual Products and Services
NPD 1383.2	NASA Assistance to Non-Government, Entertainment Oriented Motion Picture, Television, Video, and Multimedia Productions, Enterprises, and Advertising
NPD 1440.6	NASA Records Management
NPD 1490.1	NASA Printing, Duplicating, Copying, Forms and Mail Management
NPD 1600.2	NASA Security Policy

AN ASTERISK (*) INDICATES DOCUMENTS ARE RESTRICTED; THEY MAY BE VIEWED ON SITE. NO COPIES WILL BE ALLOWED OFF SITE.

NPD 1620.2	NASA Badging System
NPD 2190.1	NASA Export Control Program
NPD 2220.5	Management of NASA Scientific and Technical Information (STI)
NPD 2530.1	Monitoring or Recording of Telephone or Other Conversations
NPD 2540.1	Use of Government Telephones
NPD 2570.5	Radio Frequency Spectrum Management
NPD 2800.1	Managing Information Technolgoy
NPD 2810.1	Security of Information Technology
NPD 2820.1	NASA Software Policies
NPD 4200.1	Equipment Management
NPD 4300.1	NASA Personal Property Disposal Policy
NPD 8610.6	Graphic Markings on Space Transportation Vehicles, U.S. Components of the International Space Station Component Systems, and Payloads
NPD 9501.1	NASA Contractor Financial Management Reporting System

NASA PROCEDURES AND GUIDELINES

NPG 1441.1	NASA Records Retention Schedules
NPG 1490.5	NASA Procedural Guidance for Printing, Duplication, and Copying Management
NPG 1620.1	Security Procedures and Guidelines
NPG 2200.2	Guidelines for Documentation, Approval, and Dissemination of NASA Scientific and Technical Information (STI)
NPG 2800.1	Managing Information Technology

AN ASTERISK (*) INDICATES DOCUMENTS ARE RESTRICTED; THEY MAY BE VIEWED ON SITE. NO COPIES WILL BE ALLOWED OFF SITE.

NPG 2810.1	Security of Information Technology
NPG 4100.1	NASA Materials Inventory Management Manual
NPG 4200.1	NASA Equipment Management Manual
NPG 4200.2	Equipment Management Manual for Property Custodians
NPG 4300.1	NASA Personal Property Disposal Procedures and Guidelines
NPG 7120.5	Program and Project Management Processes and Requirements
NPG 8715.3	NASA Safety Manual
NPG 9501.2	NASA Contractor Financial Management Reporting

MARSHALL POLICY DIRECTIVES

MSFC Directories are available from the Directives Master List on the MSFC Integrated Document Library: http://inside.msfc.nasa.gov/MIDL/

MPD 1040.3	MSFC Emergency Program
MPD 1280.1	Marshall Management Manual
MPD 1380.1	Release of Information to News and Information Media
MPD 1394.1	Control of Audiovisual Products
MPD 1800.1	MSFC Smoking Policy
MPD 1840.1	MSFC Environmental Health Program
MPD 1840.2	MSFC Hearing Conservation Program
MPD 2190.1	MSFC Export Control Program
MPD 2210.1J	Documentation Input andOutput of the MSFC Documentation Repository
MPD 2800.1	Management of Information Technology Systems and Services at MSFC

AN ASTERISK (*) INDICATES DOCUMENTS ARE RESTRICTED; THEY MAY BE VIEWED ON SITE. NO COPIES WILL BE ALLOWED OFF SITE.

MPD 2810.1	Security of Information Technolgoy
MPD 2810.2	Cleaning Information from Computer Equipment at MSFC
MPD 8500.1	MSFC Environmental Management Policy
MPD 8812.1	MSFC Facility Utilization Policy

MARSHALL PROCEDURES AND GUIDELINES

MPG 1410.2	Marshall Management Directives System
MPG 1420.1	MSFC Forms Management Program
MPG 1440.2	MSFC Records Management Program
MPG 1490.1	Printing, Reproduction, and Self-Service Copying Services
MPG 2220.1	Scientific and Technical Publications
MPG 2500.1	Maarshall Telecommunications Services
MPG 2800.1	Agency Information Technology Services
MPG 2800.2	Marshall information Technology Services
MPG 2810.1	Security of Information Technology

MARSHALL WORK INSTRUCTIONS

MWI 1380.1	Handling of Freedom of Information Act Requests
MWI 1500.1	Special Events Coordination
MWI 1520.1	Visual Aid, Graphic, and Publication Production Services
MWI 2210.1B	MSFC Documentation Repository Input/Output and Data Management Project Requests
MWI 4200.1	Equipment Control

AN ASTERISK (*) INDICATES DOCUMENTS ARE RESTRICTED; THEY MAY BE VIEWED ON SITE. NO COPIES WILL BE ALLOWED OFF SITE.

MWI 4220.1	Space Utilization, Communications, Furniture, Relocation, and Special Event Services
MWI 4300.1	Disposal Turn-Ins/Reutilization Screening
MWI 4500.1	Supply Management: Storage and Issue
MWI 4520.1	Receiving
MWI 5116.1	Evaluation of Contractor Performance under Contracts with Award Fee Provisions
MWI 7120.2	Data Requirements Identification/Definition
MWI 7120.5	Data Management Plans, Programs/Projects
MWI 8540.2	Affirmative Procurement Program for Environmentally Preferable Products
MWI 8550.1	WasteManagement
MWI 8621.1	Close Call and Mishap Reporting and Investigation Program
MWI 8715.1	Electrical Safety
MWI 8715.2	Lockout/Tagout Program
MWI 8715.3	Hazard Warning Signs and Barricades
MWI 8715.4	Personal Protective Equipment (PPE)
MWI 8715.6	Hazardous Operations
MWI 8715.9	Occupational Safety Guidelines for MSFC Contractors
MWI 8715.11	Fire Safety Program
MWI 8715.13	Safety Concerns Reporting System (SCRS)

ORGANIZATIONAL WORK INSTRUCTIONS

AD30-OWI-003	Information Services Department Contractor Evaluation Process and Contractor Interactions

AN ASTERISK (*) INDICATES DOCUMENTS ARE RESTRICTED; THEY MAY BE VIEWED ON SITE. NO COPIES WILL BE ALLOWED OFF SITE.

AD30-OWI-006	Requirements Document Procedure for the Program Information Systems Mission Services (PrISMS) Contract
AD30-OWI-007	Office of the Chief Information Officer Flight Readiness Review (FRR) Procedures

GODDARD SPACE FLIGHT CENTER POLICY DIRECTIVES

GPD 8715.1	GSFC Safety Policy
GSFC 290-WI-8072.1.1	Communications Service Request Process
GSFC 290-WI-8072.1.2	NISN Implementation Service Request Process
GSFC 290-WI-1410.1.1	ISAT Division Document and Data Control
GSFC 290-WI-5340.2.1	Control of Minor Nonconforming Products

CSOC OPERATING PROCEDURES

*CSOC-MSFC-LOP-002931	NISN Trouble Reporting, Activity Scheduling, Mission Freeze, and Major Outage Notification
CSOC-MSFC-MPRC-001172	NISN Service Request Process

NISN POLICIES

*	Internet Protocol Operational Network (IONet) Access Protection Policy and Requirements, 290-004
	NISN Application Access Request Form
	NISN Services Document
*	IONet Security Plan
*	NISN Trouble Reporting, Activity Scheduling, Mission Freeze and Major Outage Notifications
*	IONet Access Control Compliance Checklist

CIO POLICIES

NASA-STD-2806	Network Protocol

RUSSIA IT SERVICES POLICIES AND PROCEDURES

AN ASTERISK (*) INDICATES DOCUMENTS ARE RESTRICTED; THEY MAY BE VIEWED ON SITE. NO COPIES WILL BE ALLOWED OFF SITE.

*200.1	Handling Security Violations
*200.3	NT Systems Backup
*200.18	Creating, modifying, and deleting user accounts on UNIX systems.
*200.19	Configuring Stonebeat High Availability fail-over Software
*200.21	Email Administration Procedures
*200.22	Installing Stonbeat High Availability fail-over Software
*200.25	SCNI-RUSSIA Microsoft Domain Trust Relationships Procedure
*200.26	PSCNI-RUSSIA Microsoft Remote Access Admin (RAS) Administration
*200.31	HOW TO BACKUP A SUN SYSTEM TO TAPE
*200.33	DNS Build Document
*200.35	Penta Hotel Networking Instructions
*200.40	Firewall Rule Creation
*200.41	Firewall Rule Modification
*200.42	Firewall Rule Deletion
*200.43	Firewall Log Viewer Operations
*300.1	Optimizing the IDNX Mission Network
*300.2	Optimizing the Admin Network
*300.3	IDNX Mission Card Reset/Trouble Shooting Procedure
*300.4	Returning from satellite to fiber transatlantic circuit
*300.5	Opening responsibilities
*300.6	Closing responsibilities
*300.7	Mission Routers
*300.8	VITS - Site Configuration
*300.9	Call out assistance
*300.10	Outage Notification
*300.11	Connecting to N203 via Modem
*300.12	Activating Baikonur services
*300.13	Gathering Network Stats
*300.14	Global One Trouble Reporting
*300.15	Vendor Support Contact Numbers
*300.16	Optimizing for One Transatlantic Admin E-1
*300.17	Optimizing Services when Mission E-1 is Down
*300.18	Outage of Building 4207
*300.19	Penta Port Activation/Deactivation
*300.20	On Call Engineering/Technical Support

NACC POLICIES AND PROCEDURES

AN ASTERISK (*) INDICATES DOCUMENTS ARE RESTRICTED; THEY MAY BE VIEWED ON SITE. NO COPIES WILL BE ALLOWED OFF SITE.

*OP A-101	Operating Procedure For Data-Base Management System Software Release Installation
*OP A-103	Operating Procedure For Installation Of Application Software
*OP A-104	Operating Procedure For Nacc Operating System Policies
*OP C-201	Operating Procedure For Computer Network Technology (CNT) Channel Extender Checkout
*OP C-202	Operating Procedure For Communications Testing
*OP C-203	Operating Procedure For Nacc Network Operations
*OP M-301	Operating Procedure For Preparation Of Nacc Operating Procedures
*OP M-302	Operating Procedure For Nacc Documentation Development And Maintenance
*OP M-310	Operating Procedure For Performance Metric Development
*OP M-311	Operating Procedure For Submittal And Processing Of Nacc Change Requests
*OP M-312	Operating Procedure For Nasa Automated Data Processing (ADP) Consolidation Center (NACC)Acronyms And Terms
*OP M-314	Operating Procedure For Generation And Maintenance Of Nasa Automated Data Processing (ADP) Consolidation Center (NACC) Computer Operations Documentation/Procedures
*OP M-317	Operating Procedure For NACC Help Desk Procedure
*OP M-318	OPERATING PROCEDURE FOR Escalation/Notification Procedures For NACC Operational Problems
*OP O-401	Operating Procedure For NACC Hardware Power Up/Down Procedures
*OP O-402	Facility (MAF) Production/Development Logical Partitions (LPAR'S)
*OP O-403	Operating Procedure For Stennis Space Center (SSC)Production Domain
*OP O-404	Operating Procedure For ARTEMIS LPAR (SDEV)
*OP O-405	Operating Procedure For Marshall Space Flight Center (MSFC) Logical Partitions (LPAR'S)
*OP O-406	Operating Procedure For Kennedy Space Center (KSC) Administrative (Admin) Domains
*OP O-407	Operating Procedure For Nasa Headquarters (HQ) Computer Center (NHCC) Domains
*OP O-408	Operating Procedure For Dryden Flight Research Center (DFRC) Production Logical Partition (LPAR)
*OP O-409	Operating Procedure For Time Change Procedures
*OP O-412	Operating Procedure For Hardware And Maintenance Procedures
*OP O-417	Operating Procedure For Security Access To The Nacc Computer Operations Area

AN ASTERISK (*) INDICATES DOCUMENTS ARE RESTRICTED; THEY MAY BE VIEWED ON SITE. NO COPIES WILL BE ALLOWED OFF SITE.

*OP O-418	Operating Procedure For System Intervention Policy For Nacc Operating Systems
*OP O-419	Operating Procedure For Nacc Maintenance Activities
*OP O-420	Operating Procedure For Langley Research Center (Larc) Logical Partitions (Lpar's
*OP O-421	Operating Procedure For GODDARD SPACE FLIGHT CENTER (GSFC) LOGICAL PARTITION (LPAR)
*OP O-422	Operating Procedure for AMES RESEARCH CENTER (ARC) LOGICAL PARTITION (LPAR)
*OP O-425	Operating Procedure For JSC CIS-D/MVS Domain
*OP O-426	Operating Procedure For JSC IMIC_A LPAR
*OP O-427	Operating Procedure For JSC IMIC_B LPAR
*OP O-428	Operating Procedure For JSC CIS-D/VM LPAR
*OP O-429	Operating Procedure For Annual Key-Card Access Review
*OP O-430	Operating Procedure For NACC Tape Library Inventories
*OP O-431	Operating Procedure For NACC Annual Facilities Building Code Review
*OP O-433	Operating Procedure For NACC Activity Scheduling (Including System Outages)
*OP O-434	Operating Procedure For Nacc Production (Naprod) Logical Partition (Lpar)
*OP O-435	Operating Procedure For NACC Common (Nacomn) Logical Partition (Lpar)
*OP O-436	Operating Procedure For Preparing And Excessing NACC Data Storage Equipment And Media
*OP O-437	Operating Procedure For NACC Vault Procedure
*OP O-438	Operating Procedure For Nacc Library Station (NALIB01) Logical Partition (LPAR)
*OP O-439	Operating Procedure For Standalone Dump Procedure For All Nacc Logical Partitions (LPAR's)
*OP O-444	Operating Procedures For Media Library Procedures
*OP O-445	Operating Procedure For Reporting Service Interruptions For Equipment Covered Under Maintenance Contracts Of External Vendors
*OP S-501	Operating Procedure For Load Balance/Performance Monitoring
*OP S-505	Operating Procedure For Software Maintenance Procedures
*OP S-506	Operating Procedure For Tape Library Management

MISCELLANEOUS POLICIES AND PROCEDURES

AN ASTERISK (*) INDICATES DOCUMENTS ARE RESTRICTED; THEY MAY BE VIEWED ON SITE. NO COPIES WILL BE ALLOWED OFF SITE.

ANSI/AIIM MS23	Practice for Operational Procedures/Inspection and Quality Control of First-Generation, Silver-Gelatin Microfilm of Documents
ANSI/AIIM MS5	Microfiche Standard
ANSI/ISO 9001:2000	Quality Management Systems - Requirements
NASAGraphic Standards	Graphics Standards WWW Manual (http://www.hq.nasa.gov/office/pao/insignia/)
	MSFC Writing Guide (http://starbase.msfc.nasa.gov/techinfo/techpubl.html)
	Marshall Editing Guide Technical Reports and Publications (http://starbase.msfc.nasa.gov/techinfo/techpubl.html)
	General Records Schedules (Available from the National Archives and Records Administration Home Page, "Records Management – Publications": http://ardor.nara.gov/grs/index.html

PrISMS STANDARD OPERATING PROCEDURES

1B101	Processing of Standard Operating Procedures
1B110	Facility Work
1B114	Substore Requisitions and Petty Cash Procedures
1B131	Limitations of Funds Notice
1B139	Scheduling and Operations of Conference Facilities at Marshall Space Flight Center
1B143	Work Breakdown Structure Update Process
1B203	Operation, Control, and Dispatch of Vehicles
1B218	Cellular Telephone Delivery and Operation

AN ASTERISK (*) INDICATES DOCUMENTS ARE RESTRICTED; THEY MAY BE VIEWED ON SITE. NO COPIES WILL BE ALLOWED OFF SITE.

1B219	Movement of PrISMS Property
1B220	Sales or Exchange of Equipment
1B221	Equipment Condition Coding
1B222	Requirements Documents
*1B223	Resetting Passwords and Lockouts for NACC and Office of the CIO Managed Systems
*302-001	Handling IT Security Violations
*302-002	NID Registration
*302-003	Roles and Responsibilities While On-Call
*302-004	Adding A Center to the TCP Dump Console
*302-005	How to Operate TCPDump/SHADOW
*302-006	How to Operate NID 2.2.1
*302-007	How to Operate RealSecure
*302-008	NASIRC After-Hours Phone Support
*302-009	How to Add Tape Drive Without Rebooting
*302-010	How to Copy Data from Disk Using “dd”
*302-011	How to Use the TCPDump Data Console
*302-012	NID Mail Alert File, and Alert Notification Update
*302-013	How to Install the TCPDump Data Console
*302-014	How to Handle a Compromised System
*302-015	Installing Macros for the Daily Incident Report
*302-016	Conducting Penetration Testing
*302-017	How to Perform Keyword Searches with Encase
*302-018	Forensic Data Gathering Forms
*302-019	Basic Steps in Forensic Analysis
*302-020	Disaster Recovery Implementation Plan

AN ASTERISK (*) INDICATES DOCUMENTS ARE RESTRICTED; THEY MAY BE VIEWED ON SITE. NO COPIES WILL BE ALLOWED OFF SITE.

*302-021	End-of-Month ID/IR Team Duties
*302-022	How to Add a new TCPDump Sensor to the Shadow Pages
*302-024	Encase Data Gathering Form
*302-025	Evidence Control and Chain of Custody Form
*302-026	IP Address Blocking on the WAN Router
*302-027	IP Address Blocking on an MSFC-Managed Firewall
*302-028	Initializing and Running the TCPDump Command Files
*302-029	Determining a Tape Drive's SCSI ID
*302-030	Performing N-SOC Shift Responsibilities
*302-031	Entering Case Information into the Remedy Database
*302-032	Hard-Closing Trouble Tickets
*302-033	Transferring Trouble Tickets
*302-034	Performing Probes on the NSSTC Network
*302-035	Handling Planned and Unplanned N-SOC Absences (Phone Forwarding)
*302-036	Handling SPAM
*302-037	Ensuring IDS Operations (N-SOC)
*302-038	Using the NID Filter Manager
*302-041	Handling Trouble Tickets that are Transferred to IT Security
*302-042	Restarting NID
*302-043	Restarting I-watch and Malert
*302-044	Controlling ID/IR Nonconforming Product
*302-045	Using the Incident Metrics to Reduce MSFC System Vulnerabilities
*302-046	Using the Incident Metrics to Modify Filters and Inform Other Centers
*302-047	IT Security LAN Disaster Recovery Implementation Plan
*302-048	Determining if a System has Been Compromised
*302-049	Consolidated and Remote Site Daily Summary Reports
*302-050	How to Check NID Alerts
*302-051	How to Use DaBoard
*302-052	How to Install Ikonboard on Unix for DaBoard
*302-053	Release of IT Information
*302-054	Agency Network Radius Contingency Plan
*302-055	User Access to the NSOC Network VPN
*302-056	Ruleset Installation for the NSOC PIX Firewall
*302-057	Agency Network VPN Contingency Plan
*302-058	User Access to the Agency Network VPN
*302-059	Administrative Access to the Agency Network VPN
*302-060	Accessing the NISN/ IT Security IDS Systems
*RSGV 301-001	Russian Services Procedure and Guidelines AD33 Security of Information Technology

AN ASTERISK (*) INDICATES DOCUMENTS ARE RESTRICTED; THEY MAY BE VIEWED ON SITE. NO COPIES WILL BE ALLOWED OFF SITE.

2B9	Testing of the Emergency Warning System
2B18	Personnel Relocations
3B5	Operation and Maintenance of the Employee Television System
4B3	Morris Auditorium Audio/Video Control
4B6	Audio/Video Production
4B10	Duplicating Copyrighted Video Tapes and Films
4B17	Operations of Imaging Services
5B9	Marshall Space Flight Center Media Relations Mission Communications Support Requirements
5B21	Impoundment of Data
6B5	Fiber-Optics Outside Cable Plant Procedure
7B7	Mobile Radio Moves and Frequency Changes at Marshall Space Flight Center and Michoud Assembly Facility
9B4	Telecommunications Manholes Entry
9B5	Safety Equipment and Usage
9B9	Hazardous Facilities, Operations, and Equipment
9B13	Fire Prevention Program
9B14	Severe Weather Emergencies
9B15	Material Handling and Equipment
9B16	Asbestos Hazardous Operations
9B17	Communications Towers Safety Criteria
9B22	Performance Metrics Maintenance and Reporting
9B26	Ergonomics Program
9B32	Safety Inspections and Remedial Action Plans

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9B36	Confined Space Entry
9B37	Safety Criteria for Elevated Work Surfaces
9B39	Personnel Training and Certification
9B40	Control of Hazardous Chemicals, Substances, and Materials
502.01	Service Order Control Desk
502.02	Still Photography
502.03	Still and Digital Laboratory
502.4	Instrumentation and Engineering
502.5	Test Area Video Documentation
502.6	Motion Picture Laboratory Services
502.7	Film-to-Tape Transfer
502.8	Conference Facilities Support
502.9	Impoundment of Data
502.10	SRS and ROM Procedures
502.11	Contingency Plan for Imaging Server
503.1	Live Shot
503.2	Video File
503.3	Tape Duplication
503.4	OSS POC Cut-in
503.5	Marshall Continual Learning Channel
503.6	Morris Auditorium Event
503.7	Mission Ops
503.8	Audio Equipment Inventory and Checkout

AN ASTERISK (*) INDICATES DOCUMENTS ARE RESTRICTED; THEY MAY BE VIEWED ON SITE. NO COPIES WILL BE ALLOWED OFF SITE.

10B101	Preparing the MSFC Telephone Directory
10B103	The Attendant Telephone Console
10B201	Operations of the Marshall Space Flight Center Communications Message Center
*10B211	Emergency Plan for Physical Security of the Marshall Space Flight Center Communications Facilities
10B213	Secure Facsimile Messages
*10B214	Access and Control for the Marshall Space Flight Center Communications Message Center
*10B218	Handling of Classified Documents Within the Communications Message Center
10B220	Maintenance and Configuration Control of Red Equipment and Circuits
10B221	Assessment of Dial-up Modems
10B228	Destruction of Sensitive Applications Data
10B230	Flash Teletype Traffic Notification List
*11B113	Creating, Modifying, and Deleting User Identifications
13B503	Administrative Telephone Service at MSFC
13B504	Administrative Telephone Service at MAF
14B101	Processing Trouble Reports
14B102	Support of Facilities Outages Affecting Telecommunications at Marshall Space Flight Center
14B120	Bomb Threats
16B101	Audio and Video Distribution, Playback, and Testing at the Central Distribution Center
16B103	Verification of Audio and Video Levels Within Marshall Space Flight Center Television System

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*16B104	Up-linking to Domestic Satellite
*16B107	Acceptance of Video Signal to and from Common Carriers
16B114	Distribution of Television for Space Shuttle Missions
*19B102	MSFC Integrated Business Exchange Disaster Recovery Activities
*19B105	NASA Information Support Center (NISC) Disaster Recovery
*19B111	Midrange Data Center (Building 4663) Disaster Recovery Procedure

IS STANDARD OPERATING PROCEDURES

IS-CS-001	Graphics Service
IS-CS-002	Scientific and Technical Information (STI) Services
IS-CS-003	Publications and Presentations Services
IS-CS-005	Providing Dedicated and Collocated Graphics Support
IS-CS-006	Backup and Safeguarding of Electronic Files
IS-CS-007	Determination of In-Scope Versus Out-of-Scope Work
IS-CS-009	Forms

IFMP STANDARD OPERATING PROCEDURES

All IFMP Standard Operating Procedures are restricted access documents, accessable only from the IFMP Integration Project's internal web site.

*SAP - 001	SAP Basis Support Package Application and Approval Process
*SAP - 002	Core Financial Project Production Build Process
*SAP - 003	Transport Procedures
*SAP - 004	OSS Note Procedure
*SAP - 005	SAP R/3 Core Financials Problem Solving
*SAP - 006	Daily Process Checklist
*SAP - 007	Defining Connections
*SAP - 008	SAP Monitoring

AN ASTERISK (*) INDICATES DOCUMENTS ARE RESTRICTED; THEY MAY BE VIEWED ON SITE. NO COPIES WILL BE ALLOWED OFF SITE.

*SAP - 009	System Profile Maintenance
*SAP - 011	BW Support and Maintenance
*SAP - 012	SAP R/3 Client Refresh Procedures
*UNIX-001	SAP Recovery Plan - Draft
*UNIX-003	Sun E10K Run Book
*UNIX-004	Runbook Access
*UNIX-005	IFMPMSFC1 and IFMPMSFC2 (REBOOT)
*UNIX-006	NETBACKUP CHECK after IPL.DOC
*DB-001	Storage Management
*DB-002	Basis Software Upgrade Process
*NT-001	IFMP NT Procedures
*NT-002	NASA StARS Reports Installation
*NT-003	Resumix Checklist Prior To Upgrade or New Install
*NT-004	Resumix Citrix Application Server Module Installation Order
*NT-005	Resumix Database Upgrade Load Order
*NT-006	Resumix KnowledgeBase Installation
*NT-007	Resumix v6.3 Customizer & Re-extractor Installation
*NT-008	Resumix v6.3 Database Profiler
*NT-009	Resumix v6.3 Database Upgrade
*NT-010	Resumix v6.3 Extractor Server Upgrade Instructions
*NT-011	Resumix v6.3 Miscellaneous Information
*NT-012	Resumix v6.3 Operator Services Installation
*NT-013	Resumix v6.3 Recruiter's Desktop Installation
*NT-014	Installing Entrust Certificate on an NT Server
*ITS - 001	ITS Runbook
*BR - 001	Veritas Runbook
*BR - 002	System Backup
*EM - 002	Core Financials Event Management Procedures
*OM-001	SAP Printers Runbook
*SEC-001	ClearQuest Account and Password Management
*SEC-002	EAI Servers Windows 2000 Account and Password Management
*SEC-003	IFMP Security Monitoring
*SEC-004	Citrix Accounts - Pathfinder and ClearCase Account Management
*SEC-005	Citrix Passwords - Pathfinder and ClearCase Password Management
*SEC-006	Travel Manager Account and Password Management
*SEC-007	EAI e*Gate Account and Password Management
*SEC-008	SAP R/3 - Creating User IDs and Assigning Roles
*SEC-009	Creating P-Card User Accounts
*SEC-010	SAP R/3 - Creating Business Warehouse User Accounts
*SEC-011	Establishing OSS Connections

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*SEC-012	Registering SAP Developers and Objects
*DR - 001	IFMP Disaster Recovery Plan

AN ASTERISK (*) INDICATES DOCUMENTS ARE RESTRICTED; THEY MAY BE VIEWED ON SITE. NO COPIES WILL BE ALLOWED OFF SITE.

OTHER

General Records Schedules are available from the National Archives and Records Administration home page, “Records Management – Publications” at http://www.nara.gov/records/index/html

AN ASTERISK (*) INDICATES DOCUMENTS ARE RESTRICTED; THEY MAY BE VIEWED ON SITE. NO COPIES WILL BE ALLOWED OFF SITE.

DEPARTMENT OF DEFENSE

CONTRACT SECURITY CLASSIFICATION SPECIFICATION

(The requirements of the DoD Industrial Security Manual to all security aspects of this

1. CLEARANCE AND SAFEGUARDING

a. FACILITY CLEARANCE REQUIRED: TOP SECRET

b. LEVEL OF SAFEGUARDING REQUIRED: NONE

2. THIS SPECIFICATION IS FOR: *(X and c omplete as applicable)*

	a. PRIME CONTRACT NUMBER	
	b. SUBCONTRACT NUMBER	
X	c. SOLICITATION OR OTHER NUMBER: 03-HAW-001	Due Date *(YYMMDD)*

3. THIS SPECIFICATION IS: *(X and c omplete as applicable)*

	a. ORIGINAL *(complete date in all*		Date *(YYMMDD)*
	b. REVISED *(Supersedes all previous*	Revision No.	Date *(YYMMDD)*
	c. FINAL *(Complete Item 5 in all*		Date *(YYMMDD)*

4. IS THIS A FOLLOW-ON [ ] YES [X] NO. If Yes, complete the following:

Classified material received or generated _____ NO. If Yes, complete the following:

5. IS THIS A FINAL DD FORM 254? [ ] YES [X] NO. If Yes, complete the following:

In response to the contractor's request _____, retention of the identified classified material is authorized for the period _____

6. CONTRACTOR *(Include Commercial and Government Entity (CAGE) Code)*

a. NAME, ADDRESS, AND ZIP CODE	b. CAGE CODE	c. COGNIZANT SECURITY OFFICE *(Name, address, and Zip*
		Defense Security Service Little John Road Redstone Arsenal, AL 35898

7. SUBCONTRACTOR

a. NAME, ADDRESS, AND ZIP CODE	b. CAGE CODE	c. COGNIZANT SECURITY OFFICE *(Name, address, and Zip*

8. ACTUAL PERFORMANCE

a. LOCATION	b. CAGE CODE	c. COGNIZANT SECURITY OFFICE *(Name, address, and Zip*
NASA/MSFC Marshall Space Flight Center, AL 35812		NASA/MSFC AD50 Marshall Space Flight Center, AL 35812

9. GENERAL IDENTIFICATION OF THIS PROCUREMENT

Unified NASA Information Technology Services (UNITeS)

10. THIS CONTRACT WILL REQUIRE ACCESS TO:	YES	NO
a. COMMUNICATIONS SECURITY (COMSEC) INFORMATION	X	
b. RESTRICTED DATA		X
c. CRITICAL NUCLEAR WEAPON DESIGN INFORMATION		X
d. FORMERLY RESTRICTED DATA		X
e. INTELLIGENCE INFORMATION:		
(1) Sensitive Compartmented Information (SCI)	X	
(2) Non-SCI		
f. SPECIAL ACCESS		X
g. NATO INFORMATION		X
h. FOREIGN GOVERNMENT INFORMATION		X
i. LIMITED DISSEMINATION		X
j. FOR OFFICIAL USE ONLY		X
k. OTHER *(Specify)* ACI	X	

11. THIS CONTRACT WILL REQUIRE ACCESS TO:	YES	NO
a. HAVE ACCESS TO CLASSIFIED INFORMATION ONLY AT ANOTHER CONTRACTOR'S FACILITY OR A GOVERNMENT	X	
b. RECEIVE CLASSIFIED DOCUMENTS ONLY		X
c. RECEIVE AND GENERATE CLASSIFIED		X
d. FABRICATE, MODIFY, OR STORE CLASSIFIED HARDWARE		X
e. PERFORM SERVICES ONLY		X
f. HAVE ACCESS TO U.S. CLASSIFIED INFORMATION OUTSIDE THE U.S., PUERTO RICO, U.S. POSSESSIONS AND TRUST TERRITORIES		X
g. BE AUTHORIZED TO USE THE SERVICES OF DEFENSE TECHNICAL CENTER (DTIC) OR OTHER SECONDARY DISTRIBUTION CENTER	X	
h. REQUIRE A COMSEC ACCOUNT	X	
i. HAVE TEMPEST REQUIREMENTS		X
j. HAVE OPERATIONS SECURITY (OPSEC) REQUIREMENTS		X
k. BE AUTHORIZED TO USE THE DEFENSE COURIER SERVICE	X	
l. OTHER *(Specify)*		

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Previous editions are obsolete.

12. PUBLIC RELEASE. Any information *(classified or unclassified)* pertaining to this contract shall not be released for public dissemination except as provided by the Industrial Security Manual or unless it has been approved for public release by appropriate U.S. Government authority. Proposed public releases shall be submitted for approval prior to release

[ ] Direct [ ] Through *(Specify)*:

NONE

to the Directorate for Freedom of Information and Security Review, Office of the Assistant Secretary of Defense (Public Affairs)* for review.
* In the case of non-DoD User Agencies, requests for disclosure shall be submitted to that agency.

13. SECURITY GUIDANCE. The security classification guidance needed for this classified effort is identified below. If any difficulty is encountered in applying this guidance or if any other contributing factor indicates a need for changes in this guidance, the contractor is authorized and encouraged to provide recommended changes; to challenge the guidance or the classification assigned to any information or material furnished or generated under this contract; and to submit any questions for interpretation of this guidance to the official identified below. Pending final decision, the information involved shall be handled and protected at the highest level of classification assigned or recommended. *(Fill in as appropriate for the classified effort. Attach, or forward under separate correspondence, any documents/guides/extracts referenced herein. Add additional pages as needed to provide complete guidance.)*

a. The provisions of this contract are generally limited to the Marshall Space Flight Center (MSFC) area with the exception being at those locations where equipment is installed, maintained and general support is required by the User Agency.

b. Personnel security clearances will be issued only to those who have justifiable need.

c. TOP SECRET SCI access limited to managing Crypto keys and government-owned IT systems.

d. The contractor will be required to operate a COMSEC account issued through NASA by NSA.
The following regulations/manuals/directives apply: (1) CSCM-1 (2) NACSI 4005 (3) NACSI 4008 (4) NACSI 4010 (5) NTISSI 7000 (6) MSFC Security Regulations (7) Other applicable documents such as: STS Security Classification guide; COMSEC Supplement to the ISM; and other applicable NASA regulations and Security Classification guides.

e. NASA will be responsible for conducting an inspection/audit at the MSFC.

f. Building 4207 (MSFC) is the designated Crypto facility.

14. ADDITIONAL SECURITY REQUIREMENTS. Requirements, in addition to ISM requirements, are established for this contract. *(If Yes, identify the pertinent contractual clauses in the contract document itself, or provide an appropriate statement which identifies the additional requirements. Provide a copy of the requirements to the cognizant security office. Use Item 13 if additional space is needed.)* [ ] Yes [X] No

15. INSPECTIONS. Elements of this contract are outside the inspection responsibility of the cognizant security office. *(If Yes, explain and identify specific areas or elements carved out and the activity responsible for inspections. Use Item 13 if additional space is needed.)* [X] Yes [ ] No

Inspections for COMSEC will be conducted by MSFC and the National Security Agency as required.

16. CERTIFICATION AND SIGNATURE. Security requirements stated herein are complete and adequate for safeguarding the classified information to be released or generated under this classified effort. All questions shall be referred to the official named

a. TYPED NAME OF CERTIFYING OFFICIAL	b. TITLE	c. TELEPHONE *(Include Area Code)*
Bradford W. Garland	COR, Security	(256) 544-4537

d. ADDRESS *(Include Zip Code)*
Marshall Space Flight Center
Protective Services/ AD50
MSFC, AL 35812

e. SIGNATURE

17. REQUIRED DISTRIBUTION

X	a. CONTRACTOR
	b. SUBCONTRACTOR
X	c. COGNIZANT SECURITY OFFICE FOR PRIME AND SUBCONTRACTOR
	d. U.S. ACTIVITY RESPONSIBLE FOR OVERSEAS SECURITY ADMINISTRATION
X	e. ADMINISTRATIVE CONTRACTING OFFICER
X	f. OTHERS AS NECESSARY HQ NASA, Washington, DC

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ATTACHMENT J-12

SAFETY AND HEALTH PLAN

ATTACHMENT J-13

ACRONYMS AND ABBREVIATIONS

A	Annually
ABAP	Advanced Business Applications Programming
ACO	Administrative Contracting Officer
ADE	Agencywide Distributed (or Development?)Environment
ADMD	Administrative Management Domain
ADMIN	Administrative
AdminSTAR	Administrative Schedule*Track*Access*Report
ADP	Automated Data Processing
ADPCM	Adaptive Differential Pulse Code Modulation
ADPE	Automated Data Processing Equipment
ADSR	AIM Document Specifications Revision
AEE	Advanced Engineering Environment
AFL	American Federal of LaborAIM Automated Information Management
AIS	Automated Information Security
AMS	Acquisition Management System
ANSI	American National Standards Institute
ANTL	Ames Network Technology Laboratory
AO	Announcement of Opportunity
AOPNS	Activity and Outrage Posting and Notification System
API	Application Programs Information
APRS	Automated Procurement Request System
APS	Automated Power Supply
AR	As Required Acceptance Review
ARC	Ames Research Center
ARIN	American Registry for Internet Numbers
ARS	Action Request System
ASCII	American Standard Code for Information Interchange
ASME	American Society of Mechanical Engineers
ASNs	Autonomous System Numbers
ASQC	American Society for Quality Control
ASTER	Advanced Spaceborne Thermal Emission and Reflection Radiometer
ATM	Asynchronous Transfer Mode
ATP	Authority to Proceed
AT&T	American Telephone and Telegraph
AUTODIN	Automated Data Information Network
AXAF	Advanced X-ray Astrophysics Facility

ATTACHMENT J-13
ACRONYMS AND ABBREVIATIONS

BAA	Business Area Architecture
B&P	Bid and Proposal
B&W	Black and White
BATSE	Burst and Transient Source Experiment
Bckbn	Backbone
BGP	Border Gateway Protocol
BW	Business Information Warehouse
Bldg	Building
BMG	Business Management Group
bps	Bits per second
BRI	Basic Rate Interface
CA	Contracts Administration
CACS	Computer Access Control System
CAD	Computer Aided Design
CAITS	Centerwide Action Item Tracking System
CAM	Computer Aided Manufacturing
CAP	Contractor Acquired Property
CAPPS	Consolidated Agencywide Personnel/Payroll System
CAS	Cost Accounting System
CASE	Computer Aided System Engineering Computer Aided Software Engineering
CBA	Collective Bargaining Agreement
CBL	Commercial Bill of Lading
CC	Competency Center
CCB	Configuration Control Board
CCAIMS	Computing and Communications Asset Information Management System
CCCMs	Center Customer Commitment Managers
CCFF	Cape Canaveral Forecast Facility
CCITT	Consultative Committee for International Telegraph and Telephone
CCTV	Closed Circuit Television
CD	Compact Disk Contractual Data
CD-ROM	Compact Disk - Read Only Memory
CDC	Central Distribution Center
CDR	Critical Design Review
CERTRAK	MSFC Certification Database
CFD	Computational Fluid Dynamics
CFO	Chief Financial Officer
CFR	Code of Federal Regulations
CFS	Common File Subsystem
CICS	Customer Information Control System

CIG	Customer Interface Group
CIO	Chief Information Officer
CIS	Russia, Commonwealth of Independent 9 States
CLIN	Contract Line Item Number
CM	Configuration Management
CMP	Configuration Management Plan
CMMS	Computerized Maintenance Management System
CNES	Centre National d'Etudes Spatiales (French National Center for Space Studies)
CO	Contracting Officer
	Center Operations
COB	Close of Business
COBOL	Common Business Oriented Language
COFR	Certification of Flight Readiness
COM	Communications
	Cost of Money
COMSEC	Communications Security
CONUS	Continental United States
COS	Common Output System
COSMIS	Center Operations Services Management Information System
COTR	Contracting Officer's Technical Representative
COTS	Commercial off-the-shelf
CPAF	Cost-Plus-Award-Fee
CPR	Cardiopulmonary Resuscitation
	Core Process Requirement
CPTAS	Change Process, Tracking, and Accounting System
CPU	Central Processing Unit
CR	Change Request
CRM	Continuous Risk Management
	Customer Relationship Manager
MRPT	MSFC Resources Planning Tool
CS	Civil Service
CSA	Canadian Space Agency
CSC	Computer Sciences Corporation
CSOC	Consolidated Space Operations Contract
CSRs	Customer Service Representatives
CSU	Channel Service Units
CTI	Computer Telephone Integration
CTRWIDE	Centerwide

CWA	Communication Workers of America
DA	Data Administration
DARPA	Defense Advanced Research Project Agency
DARTS	Dryden Accounting and Resource Tracking System
DASD	Data Access Storage Device
DB	Database
DBMS	Database Management Systems
DCAA	Defense Contract Audit Agency
DCL	Document Change Log
DCMA	Defense Contracting ManagementAgency
DCM	Data Communications Module
DDS	Data Dictionary System
DEC	Digital Equipment Corporation
DED	Dedicated
DEE	Data Entry Equipment
DES	Data Encryption Standard
DF/HSM	Data Facility/Hierarchical Storage Manager
DFRC	Dryden Flight Research Center
DHCP	Dynamic Host Control Protocol Dynamic Host Configuration Protocol
DI	Development Installation
DISA	Defense Information Services Agency
DMZ	Demilitarized Zone
DNS	Domain Name Server
DoD	Department of Defense
DOI	Department of Interior
DOL	Department of Labor
DOS	Denial of Service
DP	Data Processing
DPD	Data Procurement Document
DR	Data Requirement Discrepancy Report
DRD	Data Requirements Description
DRL	Data Requirements List
DSU	Digital Service Units
DTS	Dedicated Transmission Services
DTV	Digital Television
DVD	Digital Video Disc
EAD	Equipment Acquisition Document
EADS	Engineering Analysis and Data System European Aeronautic Defense & Space Company of North America

EAI	Enterprise Application Integration
EAR	Export Administration Regulations
ECP	Engineering Change Proposal
ECR	Engineering Change Request
EEO	Equal Opportunity Office
EDMS	Electronic Document Management System
EIGRP	Enhanced Interior Gateway Routing Protocol
EIT	Electronic and Information Technology
EMC	Electromagnetic Compatibility
EMS	Electronic Meeting System
ENG	Engineering
ENMC	Enterprise Network Management Center
ENMS	Enterprise Network Management System
EOC	Emergency Operation Center
EOQ	Economic Order Quantity
EOS	Earth Observation System
EPA	Environmental Protection Agency
ERP	Enterprise Resource Planning
ERSDAC	Earth Remote Sensing Data Center
ESA	European Space Agency
ESDIS	Earth Science and Data Information Project
ESDOTS	Expert System for Design, Operations, and Technology Studies
ESI	Electro Space Incorporated
ESMO	Earth Sciences Mission Office
ESOC	European Space Operation Center
ESTEC	European Space Research Technology Center
ET	External Tank
EWS	Emergency Warning System
FAR	Federal Acquisition Regulation
FBI	Federal Bureau of Investigation
FBO	Federal Business Opportunities
FCO	Field Change Order
FDO	Fee Determination Official
FED	Federal
FedCIRC	Federal Computer Incident Response Capability
FEP	Front End Processor
FERs	Freeze Exemtion Requests
FFT	Fast Fourier Transform

FIX	Federal Network Exchange
FIP	Federal Information Processing
FLSA	Fair Labor Standards Act
FMEA	Failure Modes and Effects Analysis
FOB	Free on Board
FOIA	Freedom of Information Act
FORTRAN	Formula Translation
FRF	Flight Readiness Firing
FSAMs	Final Service Advisory Messages
FSD	Full Scale Development
FSS	Fire Surveillance System
FTA	Fault Tree Analysis
FTE	Full Time Equivalent
FTP	File Transfer Protocol
FTS2001	Federal Technology Service 2001
FX	Foreign Exchange
FY	Fiscal Year
G&A	General and Administrative
GAO	General Accounting Office
GB	Gigabyte
GBL	Government Bill of Lading
GDS	Ground Data System
GFP	Government Furnished Property
GNMP	Government Management Profile
GOSIP	Government Open Systems Interconnection Profile
GPC	General Purpose Computer
GPDAS	General Purpose Data Acquisition System
GPO	Government Printing Office
GRAM	Global Reference Atmospheric Model
GRC	Glenn Research Center at Lewis Field
GSA	General Services Administration
GSBCA	General Services Board of Contract Appeals
GSFC	Goddard Space Flight Center
GCTC	Gagarin Cosmonaut Training Center
HA	Hazard Analysis
Hdbk	Handbook
HDTV	High Definition Television
HOSC	Huntsville Operations Support Center
HP	Hewlett Packard
HPGL	Hewlett Packard Graphic Language
HQ	Headquarters
HR	Human Resources
HSR	Houston Support Room
HSVP	High Speed Vector Processor

http	hypertext transfer protocol
httpd	hypertext transfer protocol daemon
https	hypertext transfer protocol secure
HVAC	Heating, Ventilation, and Air Conditioning
HW	Hardware
I/O	Input/Output
IAM	Integrated Asset Management
IAN	Institutional Area Network
IBM	International Business Machines
IBMP	Institute of Biomedical Problems
ICD	Interface Control Documents
ICE	Shuttle External Tank Ice Video
ID	Identification
IDEA	ISS Downlink Enhanced Architecture Project
IDGS	Interim Document Generation System
ID/IQ	Indefinite Delivery/Indefinite Quantity
IDNX	Integrated Digital Network Exchange
IDS	Incident Detection System
IES	Integrated Engineering System
IF	Interface
IFM	Integrated Financial Management
IFMCC	Integrated Financial Management (IFM) Competency Center
IFMP	Integrated Financial Management Program
IG	Inspector General
IGW	Interactive Graphics Workstation
IIS	Integrated Information Services
IIT	International Interagency Telecommunications
IKI	Space Research Institute, Russian Academy of Sciences
IMC	Image Motion Compensator
IMCC	Information Mission Control CenterIMPACS Integrated Manufacturing Project Planning and Control System
IMS	Integrated Manufacturing System
INL	Integrated Network Laboratory
INRM	Intelligent Network Resource Manager
IOC	Initial Operating Capability
IP	Internet Protocol
IPNOC	Internet Protocol (IP) Network Operations Center
IPO	Integration Project Office
IPSC	Integration Project Steering Committee
IPT	Integrated Product TeamIPX Internet Packet Exchange
IR&D	Independent Research and Development
IRIG	Interrange Instrumentation Group

IRM	Information Resource Management
IRS	Internal Revenue Service
IRSPC	Information Resource Strategic Planning Committee
ISD	Information Services Department
ISDN	Integrated Services Digital Network
ISIS	Integrated Security Information System
ISM	Infrastructure Systems Management
ISO	International Organization for Standardization
ISS	International Space Station
IT	Information Technology
ITAR	International Traffic in Arms Regulations
ITMC	International Telecommunication Management Center
ITS	Information Technology Security
ITSP	Information Technology Security Plan
ITU	International Teleconferencing Union
IUS	Inertial Upper Stage
IV&V	Independent Validation and Verification
IVR	Interactive Voice Reorganization
JCP	Joint Committee on Printing
JD/Q	Job Description/Qualification
JES	Job Entry System
JOFOC	Justification for Other than Full and Open Competition
JSDMVS	JSC (Johnson Space Center) Distributed Multiple Virtual Systems
JSIMIC	JSC (Johnson Space Center) Integrated Management Information Center
JPL	Jet Propulsion Laboratory
JSP	Java
JSC	Johnson Space Center
KP	Key Personnel
KSC	Kennedy Space Center
LABOR	Labor Distribution and Tracking System
LAN	Local Area Network
LaRC	Langley Research Center
LBV	Low Bandwidth Video Teleconferencing
LCD	Liquid Crystal ProcessorLLP Lightning Location and Protection
LMSOC	Lockheed Martin Space Operations Company
LPS	Launch Processing System
LS	Logistics/Support
LSA	Labor Surplus Area

LTIR	Lost Time Incident Report
LTM	LAN Traffic Monitor
MA	Management
MAC	Move Add Change
MACS	Marshall Access Control System
MADR	Max Allowable Defect Rate
MAE	Metropolitan Area Exchange
MAF	Michoud Assembly Facility
MAPROD	MAF (Michoud Assembly Facility) Production
MAPTIS	Materials and Processes Technical Information System
MARTS	MSFC Accounting and Resource Tracking System
Mbps	Megabits per Second
MCC-H	Mission Control Center at Johnson Space Flight Center, Houston
MCC-M	Mission Control Center-Moscow
McIDAS	Man Computer Interactive Data System
MCIP	Mission Critical IP
MCMS	Marshall Calibration Management System
MCNP	Monte Carlo Neutron Photon
MEDIS	MSFC Employee Data Information System
MHz	Megahertz per Second
MIB	Mishap Investigation Board
MIC	Management Information Center
MICS	Management Information and Control System
MIDDS	Meteorological Interactive Data Display System
MIS	Management Information System
MiX	Marshall image Exchange
MIX	Multicast Exchange
MAO	Memorandums of Agreement
MCU	Multipoint Control Unit
MONS	Mission Outage Notification System
MORRIS	Monthly Online Records and Reports of Information Technology Services
MOU	Memorandum of Understanding
MPG	Marshall Procedures and Guidelines
MPD	Marshall Policy Directive
MPIS	Marshall Personnel Information System
MPV	Manual Procedure Viewer
MROG	Modular Room Operation Guide
MSFC	Marshall Space Flight Center
MSN	Mission
MSOA	Monthly Statement of Account

MSR	Mission Support Room
MSU	Measurement Stimuli Unit
MTBF	Mean Time Between Failures
MTLO	Moscow Technical Liasion Office
MTRS	MSFC Technical Report Server
MTTR	Mean Time to Repair
	Mean Time to Restore
MUX	Multiplexer
MVS	Multiple Virtual Storage
MWI	Marshall Work Instruction
N/A	Not Applicable
NAARTEMIS	NACC (NASA ADP Consolidation Center) ARTEMIS
NAC	National Agency Check
NACC	NASA ADP Consolidation Center
NAFIS	NASA Accounting and Financial Information System
NAICS	North American Industry Classification System
NAIS	NASA Acquisition Internet Services
NARA	National Archives and Records Administration
NASA	National Aeronautics and Space Administration
NASCOM	NASA Communications (Network)
NASDA	National Space Development Agency (Japan)
NASIRC	NASA Incident Response Center
NASTRAN	NASA Structural Analysis
NBS	NASA Budget System
NCARS	NASA Cyber Attack Response System
NCC	Network Control Center
NCCS	Network Controller Communication Subsystem
	NASA Computing and Communications Services
NCI	NASA Collaborative Infrastructure
NCR	National Cash Register
NDM	Network Data Mover
NEBA	NASA Employees Benefit Association
NEMS	NASA Equipment Management SystemNESS
NF 1018 Electronic Submission System	
NET	Network Equipment Technologies
NETMGT	Network Management
NF	NASA Form
NFPA	National Fire Protection Association
NFS	NASA FAR Supplement
NGIX	Next Generation Internet Exchange
NILE	Network Integration Laboratory Environment
NISC	NASA Information Support Center

NISN	NASA Integrated Services Network
NISSU	NASA Information Systems Services Utility
NIST	National Institute of Standards and Technology
NIX	NASA Image Exchange
NLRB	National Labor Relations Board
NLS	National Launch System
NMC	Network Management Center
NMCS	Network Management Control System
NMLO	NASA Moscow Liasion Office
NMS	Network Management System
NOAA	National Oceanic and Atmospheric Administration
NOMC	NASCOM Operations Management Center
NORS	NASA On-line Registration System
NOSC	NASA Online Supply Catalog
NPD	NASA Policy Directive
NPDMS	NASA Property Disposal Management System
NPG	NASA Procedures and Guidelines
NPN	NASA Prototype Network
NPPS	NASA Personnel/Payroll System
NPSS	NASA Packet Switching System
NRA	NASA Research Announcement
NRCMS	NASA Requirements & Cost Management System
NREN	NASA Research and Education Network
NSA	National Security Agency
NSAP	Network Service Assurance Plan
NSD	NISN Service Document
NSG	Network Services Group
NSF	National Science Foundation
NSMS	NASA Supply Management System
NSN	NASA Secure Network
NSOC	NASA Security Operations Center
NSR	NISN Service Request
NSSTC	National Space Science & Technology Center
O&SS	Operations and Sustaining Support
OCR	Optical Character Recognition
ODC	Other Direct Costs
ODIN	Outsourcing Desktop Initiative for NASA
OELA	Oracle Enterprise License Agreement
OEM	Original Equipment Manufacturer
OF	Office
OI	Operational Instrumentation

OLA	Operational Level Agreement
OMB	Office of Management and Budget
OPGUID	Optimum Guidance
OPM	Office of Personnel Management
OPX	Off-premise Extensions
OSHA	Occupational Safety and Health Administration
OSI	Open Systems Interconnection
OSPF	**Open Shortest Path First**OWI Organizational Work Instructions
P&W	Pratt and Whitney
PABX	Private Automatic Branch Exchange
PAD	Packet Assembler and Disassembler
Para	Paragraph
PAS	Personnel Awards System
PBC	Performance Based Contracting
PBX	Private Branch Exchange
PC	Personal Computer
PCA	Program Commitment Agreement
PCCA	Principal Center for Communications Architecture
PCI	Protocol Converter Interface
PDF	Portable Document File/Format
PDM	Product Data Management
PDR	Preliminary Design Review
PDWS	Procurement Data Warehouse System
PEB	Performance Based Board
PEM	Patrol Enterprise Monitor
pgs	Pages
PIN	Personal Identification Number
PIP	Premium IP
PK	Park
PKI	Public Key Infrastructure
PM	Preventive Maintenance
	Performance Management
PMA	Photo Marketing Association
	President’s Management Agenda
PMC	Program Management Council
	Performance Measurement Criteria
PMDS	Problem Management and Dispatch System
PPE	Personnel Protective Equipment
PPM	Principle Periods of Maintenace
PO	Purchase Order
POC	Payload Operation Center
	Point of Contact

POP	Program Operating Plan
POS	Packet Over SONET
POSIX	Portable Operating System Interface for Computer Environment
PPDB	Past Performance Data Base
PPM	Principle Periods of Maintenance
PR	Problem Reports
PRA	Probability Risk Assessment
PRI	Primary Rate Interface
PrISMS	Program Information Systems Mission Services
PRL	Page Revision Log
PROD	Productivity
PRS	Performance Requirements Summary
PSAMs	Preliminary Service Advisory Messages
PSLAs	Project Service Level Agreements
PSTN	Public Switched Telephone Network
PWS	Performance Work Statement
QA	Quality Assurance
QATAP	Quality Assurance Through Attributes Program
RAs	Registration Authority
RAS	Remote Access Service
RAD	Rapid Application Development
RAM	Random Access Memory
RAS	Retirement Annuity System
RCIP	Real-Time Critical IP
Rev	Revision
RF	Radio Frequency
RFI	Radio Frequency Interference
RFP	Request for Proposal
RID	Review Item Discrepancy
RIP	Routing Information Protocol
	Raster Image Processor
RM	Remedial Maintenance
	Risk Manager
	Reliability and Maintainability
Rm	Room
RMA	Reliability, Maintainability, and Availability
ROM	Rough Order of MagnitudeRSA Russian Space Agency/ROSAVIAKOSMOS
	Records Staging Area
RSC-E	Rocket Space Corporation - Energia

RSIC	Redstone Scientific Information Center
RSVG	Russian Services Group
RTS	Request for Service Tracking System
S&MA	Safety and Mission Assurance
SA	Safety
	Semiannually
	Systems Analyst
SAFE	Secure Advanced Federated Environment
SAP	Service Access Point
SB	Small Business
SBA	Small Business Administration
SDB	Small Disadvantaged Business
SCA	Service Contract Act
SCDS	Space Communications and Data Services
	Space Communications and Data Systems
SCI	Sensitive Compartmented Info
SCM	Software Configuration Management
SCORM	Sharable Content Object Reference Model
SDB	Small Disadvantaged Business
SDP	Software Development Plan
SDS	Switched Data Services
SDTV	Standard Definition Television
S/E	System Engineering
SE&RD	Systems Engineering and Requirements Definition
SEB	Source Evaluation Board
SEC	Special Events Coordinator
SEI	Software Engineering Institute
SEMO	Supply and Equipment Management Officer
SESAAS	Sustaining Engineering Support for Agencywide Administrative Systems
SF	Standard Form
SGI	Silicon Graphics Inc.
SHE	Safety, Health & Environment
SI	International System of Units
SIC	Standard Industrial Classifications
SINDA	Systems Improved Numerical Differencing Analyzer
SIP	Standard IP
SLA	Service Level Agreement
SLI	Space Launch Initiative
SLTMAS	Structural Load Test Measurement Acquisition
SMCDS	Space Missions Communication Data Services

SMDS	Switched Multimegabit Digital Service
SME	Subject Matter Expert
SMLSATEPS	Small Satellite Electrical Power System
SMTP	Simple Mail Transport Protocol
SNA	Systems Network Architecture
SNMP	Simple Network Management Protocol
SOC	Standard Occupational Codes
SOLAR	Site for On-line Learning and Resources
SOMO	Space Operations Management Office
SONET	Synchronous Optical Network
SOP	Standard Operating Procedure
SOW	Statement of Work
SPI	Standard Policy Instructions
SQL	Structured Query Language
SRB	Solid Rocket Booster
SRS	Service Request System
SS	Space Shuttle
SSA	Source Selection Authority
SSC	Stennis Space Center
SSWP	Supervisors Safety Web Page
STD	Standard
STE	Secure Telephone Equipment
STI	Scientific and Technical Information
STK	Storage Technology
STU	Secure Telephone Unit
SVS	Switched Voice Services
SW	Software
TADS	Time and Attendance and Distribution System
TBD	To Be Determined
TBQ	Taxonomy-Based Questionnaire
TCP/IP	Transmission Control Protocol/Internet Protocol
TCU	Telecommunications Control Unit
TDA	Tandberg Desktop Appliance
TDRS	Tracking and Data Relay Satellite
TDRSS	Tracking and Data Relay Satellite System
TIN	Taxpayer Identification NumberTLP Test Level Point
TM	Technical Monitor
TO	Task Orders
TRASYS	Thermal Radiation System
TSO	Time Sharing Option
TT	Trouble Ticket

UAH	University of Alabama at Huntsville
UARS	Upper Atmospheric Research Satellite
UCS	Utility Control System
UNITeS	Unified NASA Information Technology Services
UPS	Uninterruptible Power Supply
URL	Uniform Resource Locator
US	United States
USC	United States Code
USDA	United States Department of Agriculture
USDOL	United States Department of Labor
VAFB	Vandenburg Air Force Base
VAX	Virtual Address Extension
VCR	Videocassette Recorder
VCRS	Video Conferencing Reservation System
ViTS	Video Teleconferencing System
VLAB	Virtual Laboratory
VMACS	Video Marshall Access Control System
VMFS	Virutal Memory Files
VMS	Virtual Memory System
VoIP	Voice over IP
VoTS	Voice Teleconferencing System
VPN	Virtual Private Network
VRA	ViTS Roll About
VRC	Virtual Research Center
VSS	Voice Switching System
VTC	Video Teleconferencing Center
VVC	Virtual ViTS Connection
WAN	Wide Area Network
WBS	Work Breakdown Structure
WebTADS	Web Time and Attendance Distribution System
WFF	Wallops Flight Facility
WINS	Windows Internet Naming Server Window Internet Naming Services
WPET	Work Package Evaluation Team
WPS	Workstation Presentation Services
WSC	White Sands Complex
WSTF	White Sands Test Facility
www	world wide web
XNS	Xerox Network Systems

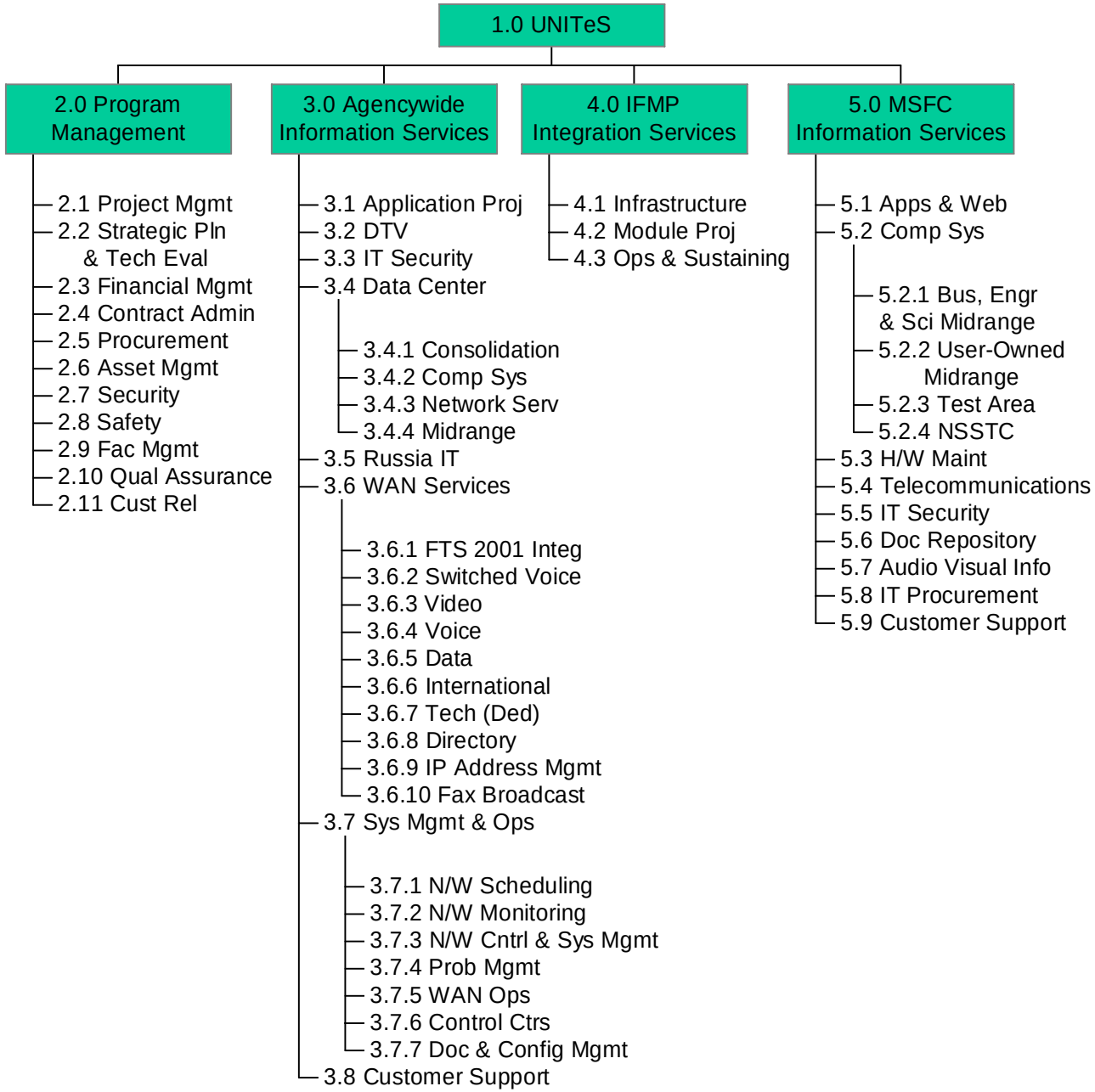
ATTACHMENT J-14

REQUIREMENTS LABOR RATES

ATTACHMENT J-15

PWS COST LEVELS

The PWS Cost Level diagram on the following page is intended for use in developing the cost proposal in accordance with L.13, Cost Instructions. It is not intended to restrict the Offeror in development of its own WBS and WBS Dictionary.


1.0 UNITeS
2.0 Program Management
3.0 Agencywide Information Services
4.0 IFMP Integration Services
5.0 MSFC Information Services
2.1 Project Mgmt
2.2 Strategic Pln & Tech Eval
2.3 Financial Mgmt
2.4 Contract Admin
2.5 Procurement
2.6 Asset Mgmt
2.7 Security
2.8 Safety
2.9 Fac Mgmt
2.10 Qual Assurance
2.11 Cust Rel
3.1 Application Proj
3.2 DTV
3.3 IT Security
3.4 Data Center
3.4.1 Consolidation
3.4.2 Comp Sys
3.4.3 Network Serv
3.4.4 Midrange
3.5 Russia IT
3.6 WAN Services
3.6.1 FTS 2001 Integ
3.6.2 Switched Voice
3.6.3 Video
3.6.4 Voice
3.6.5 Data
3.6.6 International
3.6.7 Tech (Ded)
3.6.8 Directory
3.6.9 IP Address Mgmt
3.6.10 Fax Broadcast
3.7 Sys Mgmt & Ops
3.7.1 N/W Scheduling
3.7.2 N/W Monitoring
3.7.3 N/W Cntrl & Sys Mgmt
3.7.4 Prob Mgmt
3.7.5 WAN Ops
3.7.6 Control Ctrs
3.7.7 Doc & Config Mgmt
3.8 Customer Support
4.1 Infrastructure
4.2 Module Proj
4.3 Ops & Sustaining
5.1 Apps & Web
5.2 Comp Sys
5.2.1 Bus, Engr & Sci Midrange
5.2.2 User-Owned Midrange
5.2.3 Test Area
5.2.4 NSSTC
5.3 H/W Maint
5.4 Telecommunications
5.5 IT Security
5.6 Doc Repository
5.7 Audio Visual Info
5.8 IT Procurement
5.9 Customer Support

MSFC UNITeS Supplemental Proposal Instructions and Evaluation Criteria

GENERAL INFORMATION:

The purpose of this document is to supplement the SMCDS solicitation sections L and M with additional detailed proposal instructions and evaluation criteria that are specific to the MSFC UNITeS work package.

This RFP is issued to obtain proposals for SMCDS MSFC UNITeS Work Package in accordance with the Performance Work Statement (Attachment J-1) set forth herein. The Performance Work Statement set forth is unclassified, and proposals should be submitted accordingly. However, some Contractor personnel will require access to classified documents; therefore, the selected Contractor must possess or be able to acquire a Facility Security Clearance. Security clearance, for those persons required to have such, will be obtained in accordance with the Industrial Security Manual for Safeguarding Classified Information, DOD Manual 5220.22. Contractor personnel working at MSFC, or other Centers, must comply with pertinent MSFC, or other Center, security regulations.

Your proposal should be based on a term of 3-years with two 1-year priced option years to extend the contract at one-year intervals, for a maximum period of five (5) years.

Your proposal shall be arranged in the following manner:

Volume I - Mission Suitability Factor

Volume II - Cost Factor

Volume III - Past Performance Factor

Volume IV - Contract Volume*

* The following fill-in sections shall be included in the Contract Volume: B.2 and B.5

The electronic version of the Proposal for MSFC UNITeS shall be submitted via the following media and formats: Microsoft Word 1997 for Windows, and the Microsoft Excel 1997 for Windows, on CD-ROM. Text, tables, and graphics shall allow for copy and paste into other applications. Supporting cost information included in the proposal shall also be provided electronically in Microsoft Excel spreadsheets. The cover sheet on each volume/copy shall indicate either "Original" or "Volume ___, Copy ___ of 25".

MSFC provisions can be found at:
http://ec.msfc.nasa.gov/msfc/msfc_uni.html

L.12 (UNITeS) TECHNICAL/ MISSION SUITABILITY PROPOSAL INSTRUCTIONS

The Offeror should prepare Volume I in accordance with the outline provided below: (Note: The outline is provided for use in organizing your proposal only and should not be construed as an indication of the order of importance or relative weighting within the individual mission suitability subfactors as there are no discrete point values attached to any of the sub-sections.)

Management/ Operating Plan

MA1 Management Concept, Organization Structure, and Core Values
MA2 IT Integration
MA3 Autonomy and Authority
MA4 Teaming and Subcontracting Arrangements
MA5 Internal/ External Communications
MA6 Personnel Training
MA7 Export Control
MA8 IT Security Plan
MA9 IFMP Implementation and Production Support
MA10 Risk Management

Technical Approach

TA1 Requirements Execution
TA2 Customer Relationship
TA3 Innovation
TA4 IFMP Technical and Operations Architecture
TA5 Technical Risk Analysis

Staffing

S1 Phase-In
S2 Critical Skills
S3 Corporate Resources
S4 Subcontracting
S5 Workforce Flexibility
S6 Hiring and Retention
S7 Key Personnel/ Key Positions
S8 Staffing Risk Analysis

Environmental, Safety and Health

SH1 Workplace Safety
SH2 Environmental, Safety and Health Risk Analysis

Small Disadvantaged Business (SDB) Participation

SD1 Small Disadvantaged Business Participation
SD2 Small Disadvantaged Business (SDB) Participation Risk Analysis

The Offeror's Mission Suitability proposal response indicates the Offeror’s understanding of the requirements of the Performance Work Statement (PWS); provides the Offeror’s plan for satisfying those requirements; and the likelihood that the plan will result in effective and efficient performance. The response also indicates the Offeror’s understanding of the current NASA/IT environment and provides the Offeror’s approach for moving NASA/MSFC into a customer focused, value added IT product line.

Subfactor 1 - Management/ Operating Plan

The Offeror shall explain how the proposed management structure, system, or method maximizes efficiency in completing PWS tasks and flexibility in responding to variations in workloads among PWS tasks. The Offeror shall show evidence of proven management techniques, cost control policies, and organizational skills that shall be applied to this contract. The Offeror shall also demonstrate a clear understanding of the challenges facing NASA and MSFC in the current environment and provide an approach for innovatively and strategically answering these challenges to ensure NASA/MSFC keeps abreast of the changing environment, provides the appropriate infrastructure, and provides cost effective, value added product offerings, all while continuing to meet or surpass the needs of its customers.

The Offeror shall describe their approach to executing the tasks in the Performance Work Statement, while complying with Clause H.3, “Limitation of Future Contracting.”

MA1 Management Concept, Organizational Structure, and Core Values

The Offeror shall provide charts that show the organizational structure, including connections or associations with corporations, division organizations and subcontractors. These charts should identify clear internal and external lines of authority. Complete rationale for the organization structure shall be provided to demonstrate a logical, organized approach to the contract phase-in, integrated planning, controlling, and reporting of contract activities that support the required services and the MSFC core values. This rationale will include the Offeror’s approach to develop an infrastructure needed to proactively pursue innovation and technology advancement to enhance customer satisfaction and service delivery.

The Offeror shall describe their core values, how these values are implemented, and any correlation between those values and the MSFC core values. The Offeror shall describe their approach for balancing their values in day-to-day management techniques, particularly in situations where values conflict. As an example,

the Offeror could describe their approach for resolving conflicts between the people value and the customers value.

The Offeror shall provide, in the Mission Suitability Factor (Volume I), the approval status of its accounting, estimating, property management, employee compensation, and purchasing systems.

MA2 IT Integration

The Offeror shall provide a description of their approach to the integration of IT services. This description shall provide sufficient detail to demonstrate how all service elements of the contract will efficiently and cohesively function together.

MA3 Autonomy and Authority

The Offeror shall describe the degree of local autonomy, including the authority of the project manager, any relationship to a parent organization, and any decisions or approvals that will be made outside the local organization. Descriptions shall include, but not be limited to, identification of the organizational and geographical placement of authority to:

- Assume existing tasks
- Negotiate contract modifications
- Accept in-scope assignments
- Release completed work and vouchers to the Government
- Reassign work in response to varying workloads
- Recruit and hire required personnel in a manner consistent with task skills and schedule requirements
- Acquire (by direct hire, subcontract, or teaming agreement) specific and unique scientific or technical expertise in a manner consistent with task skills, and schedule requirements
- Approve travel
- Hire, dismiss, promote, and demote personnel
- Select, administer, and terminate subcontracts
- Acquire materials as necessary

MA4 Teaming and Subcontracting Arrangements

Any teaming and subcontracting arrangements shall be described. The description shall include rationale for each of the arrangements, identification of points of contact, how management and control policies will be implemented, and how work will be controlled, reported, and reviewed. The proposal shall include a description of the accessibility and flow of relevant support from internal and external sources, such as parent organizations, teaming arrangements, and subcontractors. Any integration of team members or subcontractors into the management and supervisory hierarchy shall be fully described. The rating of subcontractor

performance and fee arrangements between prime Contractors and subcontractors shall be discussed.

MA5 Internal/ External Communications

The Offeror shall describe their approach for maintaining good communication with the Government, other MSFC Contractor support personnel, Offeror's subcontractors and the Offeror's corporate structure (internal). Offerors shall discuss proposed methods of resolving ambiguities, concerns, and conflicts that become apparent during the performance of tasks, and a method for preventing the recurrence of ambiguities, concerns, and conflicts. The Offeror shall describe their techniques for keeping the Government apprised of their projected costs.

MA6 Personnel Training

The Offeror shall address personnel training in sufficient detail to ensure success, demonstrating the ability to provide necessary orientation and training for employees to assume contract functions. The Offeror shall describe their approach to tracking completion of required training.

MA7 Export Control

The Offeror shall describe their methods necessary, where applicable, for executing exports with compliance in such areas as software, foreign visitors, scientific and technical information, shipping, internet/webpages, U.S. Postal Services, fax, and e-mail. These methods shall be in accordance with applicable export control regulations.

MA8 IT Security Plan

The Offeror shall provide a draft IT Security Plan with their Proposal. This Plan shall provide an in-depth explanation of their approach and methods for assuring that effective IT security practices are implemented and maintained at all operating levels of the contract.

MA9 IFMP Implementation and Production Support

The Offeror shall describe their management approach for the implementation and production support of NASA's Integrated Financial Management Program (IFMP) with emphasis on the Offeror's approach to implementing and operating complex SAP and enterprise application environments. The Offeror, at a minimum, shall describe their approach to the following:

- Quantitative measures that can be used to assess the effectiveness of operations support from both Service Level Agreement metrics and customer satisfaction surveys.
- A flexible organizational structure that can easily accommodate changes in program scope.
- A set of effective standard operational procedures that are well documented, effectively communicated, and produce desired results.
- Streamlined operational processes that provide acceptable customer service, particularly in response to service request, change request, and trouble tickets.
- A project management approach that preserves the skills and knowledge developed during the module design and implementation phases and effectively transitions to the production support phase.
- Organizational structure and operational processes that maximize communication and coordination between functional and technical elements of operations support.

MA10 Risk Management

The Offeror shall provide an in-depth explanation of their risk management philosophy and implementation approach. The Offeror shall describe how this approach manifests itself in the execution of the contract and shall include but not be limited to risk mitigation activities, risk management tools and techniques, risk management documentation, and employee responsibility and accountability for risk management results.

Subfactor 2 - Technical Approach

The Offeror shall develop and describe the technical approach proposed to fulfill the technical requirements of the contract.

TA1 Requirements Execution

The Offeror shall provide an in-depth explanation of approach and methods to be employed in fulfilling the tasks down to the lowest numbered PWS in the Performance Work Statement, Attachment J-1.

The Offeror shall describe those activities that shall be performed in the accomplishment of these tasks.

The Offeror shall provide complete information concerning the various methods and/or techniques to be used in planning, scheduling, processing, controlling and completing the Performance Work Statement tasks, both routine and special.

To the extent that the TA1 Requirements Execution information overlaps with the information required by TA2 or TA4, the Offeror shall provide their response under TA2 or TA4, respectively, and may reference the applicable TA2 or TA4 response sections in TA1, without duplicating the information.

TA2 Customer Relationship

The Offeror shall provide a description of their process for managing customer relationships. This process shall address how the Offeror will maintain a customer focused service delivery organization, work with the NASA points of contact to establish and manage customer expectations, and identify methods for communicating, escalating, and resolving issues.

TA3 Innovation

The Offeror shall provide an in-depth explanation of proposed methods to implement new technical approaches or new systems that will improve the quality and efficiency of performance of services or systems. The Offeror is encouraged to propose innovative methods to control and reduce costs, and to maximize performance. Innovation, rationale, cost effectiveness, and low cost planning shall be addressed in the explanation. The Offeror shall also describe methods that will be used to assess and retire obsolete or non-cost-effective technologies. Any innovations identified in the Offeror's proposal and evaluated by the Government shall be incorporated into and become a binding part of the contract.

TA4 IFMP Technical and Operations Architecture

IFMP Technical Architecture: The Offeror shall describe their approach for developing, implementing and maintaining the technical environments for the IFMP modules with emphasis on SAP environments. The Offeror must demonstrate their understanding of the existing IFMP technical environment (both data center and distributed), and their approach to interacting with business stakeholders and program management to translate application and functional requirements into technical designs. The Offeror's proposal shall describe:

- The approach to developing and documenting integrated views of system technical architectures at all layers of the architecture.

- The approach for planning and executing system build tasks within available schedule, labor, and system.

- The approach for tightly integrating technical architecture design and build work into the overall operations and sustaining support activities. This includes design and

build of operations architecture components like business continuity, disaster recovery, and performance and capacity management.

IFMP Functional Support: The Offeror shall describe their approach to providing functional support in partnership with the Government in an integrated product team environment. The Government is utilizing Civil Service (CS) subject matter experts to lead the definition of the standard business process during module design and implementation. As the module moves to a production phase, NASA Subject Matter Experts (SMEs) will lead teams comprised of CS and contractor personnel to provide functional support. Therefore, it is critical that the Offeror's proposal demonstrate their ability to:

- Provide functional expertise, based on the module application, to augment the team.
- Maintain Service Level Agreements (SLA) and report on SLA execution results at required intervals; monitor performance on an ongoing basis to identify/escalate problem areas to the Government and recommend corrective action where applicable.
- Perform ongoing "hands-on" configuration of applications in response to break/fix and other system change requirements.

IFMP Application Development: The Offeror shall describe their experience in implementation of SAP in large, distributed organizations. The Offeror shall describe their approach to managing application development in the context of an ERP environment. The Offeror shall cite examples of successfully implementing this approach for other SAP customers. The Offeror shall describe their approach to working with the implementation contractor to receive development requirements, coordinate analysis and design issues, and repair problems found during testing.

- The Offeror shall describe their experience in providing ABAP development support in large SAP implementations and sustaining support activities.

- The Offeror shall describe their experience in the implementation of Enterprise Application Integration (EAI) technology to integrate business processes across the organization. In particular, the contractor should focus on how they have demonstrated the use of EAI technology to shorten development time and decrease interface lifecycle costs for customers. The Offeror shall describe their approach to partnering with NASA to evolve the current IFMP integration architecture into a utility that can be used for both internal application integration and external integration with business partners.

- The Offeror shall describe their experience in the implementation and support of business intelligence solutions for large organizations. The Offeror should emphasize experience in successfully implementing and supporting SAP's

Business Warehouse solution. The Offeror should describe how their information delivery approach helps NASA meet the key IFMP business driver (1) Provide timely, consistent, and reliable information for management decisions. In particular, the contractor shall describe how their approach balances timeliness with information consistency and reliability. The Offeror shall describe their approach to enhancing the business intelligence component of the IFMP Competency Center in order to better support customers at each NASA Center and eliminate the need for shadow systems to provide more flexible financial reporting. The Offeror shall describe their approach to metadata management in an ERP environment.

IFMP Application Operations: The Offeror shall describe their approach to the Operations and Sustaining Support (O&SS) of the IFMP modules and give evidence of their past experience in the production support of SAP in large, complex business environments. The Offeror's narrative response shall describe in detail:

- Problem Management processes/procedures that will insure timely problem resolution and service restoration.
- Configuration Management processes/procedures that insure integrity of system configuration along with accurate documentation of system configuration.
- Release Management strategies that manage the introduction of configuration changes into the IFMP production environment.

TA5 Technical Risk Analysis

The Offeror shall submit a risk analysis for this Subfactor, which identifies risk areas. The analysis shall include a recommendation to mitigate the impact of the identified risks.

Subfactor 3 - Staffing

The Offeror shall provide a high quality and stable management team and workforce that satisfy the requirements of the contract.

S1 Staffing Approach

The Offeror shall describe their approach for staffing the work defined in the PWS. The Offeror shall provide rationale for the proposed FTE staffing level for each PWS section as identified in Attachment J-15. The Offeror shall provide a completed Job Description/Qualification Form for each proposed prime and subcontractor job title (other than key personnel) to be used in performance of the contract. (See forms at the end of this Attachment A).

S2 Phase-In

The Offeror shall describe their approach to the assumption of on-going work under the new contract. The Offeror's Phase-in Plan shall fully describe: the phase-in time required (not to exceed 90 calendar days), the method by which current task directives will be transitioned to the new contract with minimal impact, the extent to which incumbent personnel will be hired, their plan to recruit the remainder of the required workforce and any other issues deemed critical to a successful transition from the current contract to this follow-on effort. Offeror's Phase-in Plan shall also comply with the instructions in Section L.12 item 2, "Phase-in Plan" in the SMCDS Section L that applies to all work packages.

S3 Critical Skills

The Offeror shall address their approach for the recruiting and retention of specialized, critical, and unique skills and capabilities.

S4 Corporate Resources

The Offeror shall describe the use of existing corporate resources to obtain specialized contract skills and knowledge as may be needed for existing or urgent, specialized tasks. This description shall include the Offeror's ability to draw on IT expertise from across their corporation in the areas of Enterprise Resource Planning, SAP R3, and Business Warehouse to provide an SAP R3 Operational environment.

S5 Subcontracting

The Offeror, if other than a small business concern, must submit a subcontracting plan in accordance with the Clause 52.219-9, Small Business Subcontracting Plan, with their proposal. This Plan shall provide an in-depth explanation of their approach and methods for assuring that the SB subcontracting goals are met or exceeded, while effectively and efficiently providing the required services. Small Disadvantaged Business participation will be evaluated solely under the Mission Suitability subfactor entitled "Small Disadvantaged Business (SDB) Participation".

A small business subcontracting goal equivalent to 31% of the total contract value has been established for this procurement. Included in the 31% small business subcontracting goal established, 16% of the total contract value shall be awarded to small disadvantaged business concerns, 4% of the total contract value shall be awarded to small women-owned business concerns, 1% of the total contract value shall be awarded to HUBZone small business concerns, 1% of the total contract value shall be awarded to Veteran-owned business concerns, and 1% of the total contract value shall be awarded to historically black colleges and universities and other minority institutions. The minimum value of

this contract is specified in Clause B.2(a). Offerors shall make an independent assessment of the small business subcontracting opportunities and are encouraged to propose on exceeding the stated goals where practical. Proposed goals equal to or greater than the specified goal will be evaluated as indicated in Section M.

S6 Workforce Flexibility

The Offeror shall address their approach to providing the workforce flexibility necessary to accommodate short-term and long-term increases and decreases in the level of support, such as might arise due to unusual or emergency situations. This discussion shall include their approach to recruiting and retaining multi-disciplined personnel, accommodating workload adjustments through the cross-utilization of personnel, and other plans, which demonstrate the flexibility to respond to fluctuating requirements. In addition, the Offeror shall describe their approach for accommodating a substantial reallocation of services from one PWS Section to another. Each of these discussions shall include effects on management, subcontracts, continuity and quality of services, and other factors resulting from changes in staffing levels.

S7 Hiring and Retention

The Offeror shall describe any policies intended to attract and retain professional employees as defined in 29 CFR 541 and other non-exempt personnel. The Offeror is cautioned that materially lower or higher compensation than that of local standards for comparable work may indicate a lack of understanding of the complexity of the total contract. The Offeror shall submit a total compensation plan setting forth salaries and fringe benefits proposed for the professional employees who will work on the contract. The compensation plan shall include a description of employees' benefits, such as vacation, sick leave, health insurance, life insurance, relocation reimbursement, savings plans, severance pay, and retirement plan. The compensation package shall be described in terms of its capability to support recruitment, to retain employees, and its realism. The compensation levels proposed shall reflect a clear understanding of the work to be performed as evidenced by the capability of the proposed compensation structure to obtain and keep suitably qualified personnel to meet PWS objectives. The salary rates/range must take into account differences in skill, education, experience, and complexity of various disciplines, and professional job difficulty. Supporting information may include data, such as recognized national and regional compensation surveys and studies of professional, public, and private organizations, used in establishing the total compensation structure. The Offeror shall describe personnel policies, such as performance, incentive, promotion, award, training, seniority, and professional development opportunities. In addition, the

Offeror shall describe policies for addressing benefits and seniority of incumbent staff hired from the current Contractor.

Offerors are cautioned that all narrative discussion of their total compensation plan, with the exception of that narrative data needed to complete Cost Form K, must be included in the mission suitability factor volume of their proposal. Any narrative data concerning an offeror's total compensation plan placed in an offeror's cost factor volume will be considered mission suitability factor information and is subject to the page limitation imposed on the mission suitability factor volume.

S8 Key Personnel/ Key Positions

The Offeror shall furnish complete and detailed information on the background, education, training, extent and applicability of related experience, special or unique qualifications and demonstrated performance references on key personnel, including subcontractors, if applicable. This information shall be provided on the Key Personnel Description and Resume Form (see forms at the end of this Attachment A). The Offeror shall limit the number of proposed key personnel to twelve (12). The Offeror shall indicate whether each proposed individual has given a commitment, the extent of their availability, and company commitment for key personnel staffing stability of the proposed positions. It shall be stated whether these same individuals are being included in any concurrent proposals. If any proposed key personnel have previously served in key personnel positions, it shall be noted on the Key Personnel Resume Form. For each key position, the Offeror shall provide rationale for designating this position as key. In addition, personal commitment letters (not a form), signed by the individual, shall be submitted for each person designated as key personnel.

S9 Staffing Risk Analysis

The Offeror shall submit a risk analysis for this Subfactor, which identifies risk areas. The analysis shall include a recommendation to mitigate the impact of the identified risks.

Subfactor 4 - Environmental, Safety and Health

SH1 Workplace Safety

The Offeror shall describe their policies for environmental and industrial/ occupational health and safety. The Offeror shall describe their policies for workplace safety and training initiatives to promote safety in and around MSFC. Note any processes for ensuring that on-site personnel follow the MSFC policies for workplace safety. The Offeror shall submit for evaluation a draft version of the Data Requirement Document 974SA-

001, On-site Safety and Health Plan, as set forth in Section J, Attachment J-2, describing policies and methods for ensuring: management commitment and employee involvement in safety and health program; identification, analysis, prevention, and control of worksite hazards; and safety and health training program.

SH2 Environmental, Safety and Health Risk Analysis

The Offeror shall submit a risk analysis for this Subfactor, which identifies risk areas. The analysis shall include a recommendation to mitigate the impact of the identified risks.

Subfactor 5 - Small Disadvantaged Business (SDB) Participation

NOTICE: These instructions apply to both large and small business Offerors. They apply to SDB Offerors only if the SDB Offeror has waived the price evaluation adjustment factor by completing paragraph(c) of FAR Clause 52.219-23 "Notice of Price Evaluation Adjustment for Small Disadvantaged Business Concerns" in Section I of this solicitation. The waiver, if elected, makes the SDB Offeror ineligible for the price evaluation factor adjustment but eligible for the evaluation credit (points) associated with the SDB participation subfactor described in Section M.

This solicitation is for a requirement within one of the major standard industrial classifications determined by the Department of Commerce in accordance with FAR 19.201(b) and meets the applicability conditions of FAR 19.12 "Small Disadvantaged Business Participation Program". A separate mission suitability subfactor for SDB participation is described in Section M.

SD1 Small Disadvantaged Business Participation

Offerors shall:

- Indicate the total target for SDB participation, expressed both in dollars and as a percentage of contract value, for both the (a) Contractor, including joint venture partners and team members and (b) all subcontractors.
- Briefly describe the type of work that will be performed by SDB subcontractor(s). Identify any work considered "high technology" as defined in NFS 1819.001.
- Provide a record of past participation of SDB concerns in subcontracts and the type of work subcontracted such as production, engineering services, research, development, etc., over the past three full years. Copies of the SF 295s can be part of the supporting information submitted.
- Identify by contract number and contracting agency, SDB contracting incentives earned under any Government contracts in

the last three years. If incentives were available, but not earned, so state.

- Provide a brief description of established or planned procedures for SDB outreach, assistance, counseling, market research, and SDB identification, along with relevant purchasing procedures. Large businesses may reference applicable portions of the submitted Small Business Subcontracting Plan.

SD2 Small Disadvantaged Business (SDB) Participation Risk Analysis

The Offeror shall submit a risk analysis for this Subfactor, which identifies risk areas. The analysis shall include a recommendation to mitigate the impact of the identified risks.

L.13 (UNITeS) COST/PRICE PROPOSAL INSTRUCTIONS

a. General

Certified cost or pricing data are not required; however, information other than cost and pricing data are required for cost realism analysis. Offerors are cautioned not to include Mission Suitability related data in the Cost Volume.

1. A total cost summary and breakdown shall be provided. It is incumbent upon the Offeror to assure that his proposal includes complete and factual cost data. Summary level direct labor costs only are not acceptable. Estimated costs for the base period and all options will be evaluated. For evaluation purposes, it is intended to analyze the first contract year (Base Period Year 1) costs on a full 12-month period of performance. Therefore, where phase-in is applicable, the Offeror shall base the first year contract costs on full performance from contract award. Phase-in costs shall be identified and proposed separately. Offeror shall link all forms, where applicable. Electronic links shall not be broken in Offeror's electronic submission.

2. The Cost Proposal will encompass all costs associated with the requirements of the proposed contract and will comply with the applicable FAR and NASA FAR Supplement Regulations and governing statutory requirements. These instructions, including the requirements for detailed cost and substantiation data, are applicable to subcontractors under the circumstances set forth in FAR 15.404-3.

3. It is contemplated that a contract will be awarded for the 3-year base period (January 1, 2004 through December 31, 2006) with two 1-year, priced option periods (through December 31, 2008). Offerors and their team members, if any, are required to state ceiling G&A rates that they will be willing to accept for each contract period. For the purposes of this rate ceiling, G&A is defined to include Independent Research and Development/Bid and

Proposal (IR&D/B&P) costs regardless of whether or not the Offeror's normal accounting practice is to include IR&D/B&P costs in the G&A expense pool.

4. The cost proposal preparation instructions set forth herein are applicable to the Offeror as a prime contractor and any proposed major subcontracts. A major subcontract is defined as a subcontract estimated to exceed $1,000,000 in total value for the base period and all options.

5. The Government intends to use Windows Excel 2000 to aid in the evaluation of proposals and will require the submission of certain cost data on CD-ROM. Specific instructions for submitting computerized data are contained in paragraph D.5 of these Cost Proposal instructions. The Offeror should not alter proposal electronic spreadsheet file formats except for lengthening forms as appropriate or adjusting column widths. To the extent of any inconsistency between data provided on the CD-ROM and proposal hard copies, the hard copy data will be considered to be the intended data.

All Government-owned property listed in the RFP is offered on a rent-free basis.

6. Vehicles that the Offeror deems necessary to carry out the requirement shall be proposed at an amount not greater than the General Services Administration (GSA) lease cost, which includes maintenance. The Government invites proposal of an innovative approach to minimize vehicle costs. Liability insurance shall be obtained by the Offeror for any vehicles, obtained by the Offeror, that will be used under this contract. The GSA pricing information is available at the following internet address: http://www.gsa.gov/travel.html. The resultant contract shall include FAR Clause 52.251-2, Interagency Fleet Management System Vehicles and Related Services.

7. The normal MSFC duty hours are provided for the Offerors' information. Normal duty hours are defined as a 5-day week, Monday through Friday, (excluding legal holidays), 8 hours per day between the hours of 7:00 a.m. and 5:30 p.m.

The normal holidays observed by NASA are as follows:

January 1	New Year's Day
3rd Monday in January	Martin Luther King Jr.'s Birthday
Third Monday in February	President's Day
Last Monday in May	Memorial Day
July 4	Independence Day
First Monday in September	Labor Day
Second Monday in October	Columbus Day
November 11	Veterans Day
Fourth Thursday in November	Thanksgiving Day
December 25	Christmas Day

b. Pricing and Estimating Techniques

1. All pricing or estimating techniques shall be clearly explained in detail (projections, rates, ratios, percentages, factors, etc.) and shall support the proposed cost in such a manner that audit, computation, and verification can be accomplished. Also, any experience factors (unit price, hours, quantities, efforts, etc.) adjusted for proposal purposes shall be included in this area.

2. All past actuals shall show the period of time and costs in detail when used as a basis of estimating.

3. Each Offeror shall submit estimates at the rates expected to be negotiated for a contract and performance thereunder. There will be no advantage in proposing rates which are understated on the assumption that they will increase the probability of receiving a contract award. Since total cost estimates will not be given a numerical score in the evaluation process, unrealistic rates, either low or high, will tend to indicate a lack of understanding of the Performance Work Statement and requirements for contract performance.

4. Unrealistically low estimates will adversely impact the Offeror's Mission Suitability ratings and scores.

5. Offeror shall disclose the methods used in determining particular classifications of cost (direct versus indirect). Offeror shall furnish a synopsis of accounting policies and procedures. The proposed overhead and G&A rates shall be supported by forecasts and substantiating rationale which provide the following specific information for each rate, including any forward pricing rate agreements (this applies to the prime and each proposed major subcontract):

a. Major elements within each indirect pool and functions performed.

b. Allocation base (comprising elements and basis for projections).

c. Equivalent indirect personnel in each pool by contract year. Specify types of personnel and functions performed.

d. Equivalent direct personnel in the allocation base by contract year.

e. This proposal base as a percent of total allocation base.

6. In accordance with the FAR Part 30: (a) identify the Government Administrative Contracting Office (ACO) responsible for determination, and date of adequacy determination, of each Disclosure Statement for the prime and major subcontractors; (b) explain in detail any accounting practice where there is a disagreement between Offeror and the ACO; and (c) provide a new

Disclosure Statement in the event the Offeror plans to establish a new cost/profit center for performance of this effort, or the existing Disclosure Statement does not accommodate the requirements imposed by this RFP.

The prime and all major subcontractors shall identify the cognizant Defense Contract Audit Agency (DCAA) (name, address, and telephone number) and the cognizant Government Agency (name, address, and telephone number) who currently approves forward pricing rates. Provide a copy of the latest approvals applicable to this cost proposal.

c. Fee

1. The Government anticipates the contract will be a cost-plus-award-fee type. Under this arrangement, evaluations of overall performance will be based on established award fee evaluation criteria for PWS sections 2.0 and 4.0 and objectively measured criteria for PWS sections 3.0 and 5.0. Award fee evaluation criteria will focus on specific areas of interest to the Government in each evaluation period. The Contractor's opportunity to earn fee will depend upon performance. For purposes of this competition, the Government has elected to establish a minimum fee of 6%. Offerors are instructed not to propose a lower fee percentage. No advantage will be gained by proposing a lower fee, as a proposed lower fee will be adjusted by the Government to reflect this minimum.

2. The Offeror's fee proposal should recognize the varying degrees of risk and challenges for the Contractor in performing different tasks within the PWS. The proposed maximum fee should be commensurate with the contract type.

3. It is expected that the resultant contract will contain no base fee.

4. In consonance with the above general fee concepts, the Offeror is requested to propose fee arrangements that will achieve the purposes of the contract and which the Offeror is willing to accept during the performance periods. The Offeror should provide adequate detail and supporting rationale to permit the Government to readily understand and evaluate the proposed fee arrangement. Offerors shall submit to the Government for evaluation all teaming agreements applicable to this effort, along with any special implications with regard to fee.

d. Cost Proposal Preparation

Electronic spreadsheets shall be submitted including the application of rates, a functional rate table, and all formulas necessary to calculate proposed cost. Cost data for rate application shall be presented by both contractor fiscal year and contract year January 1, 2004 through December 31, 2008. In order to facilitate verification of the proposed rates and factors, if

the contract year overlaps two contractor accounting (fiscal) years, the Offeror shall provide a separate application of rates for each of the contractor accounting (fiscal) years, which are totaled to arrive at the contract year cost. Both the application of rates and totals must be clearly shown. Formats consistent with the Offeror’s normal, disclosed, and/or approved estimating and accounting practices shall be used. The Offerors established labor classifications, by individual labor position (including hours and rates), and all other cost categories (including overhead/burden rates), base amounts, and application of rates shall be clearly shown. Also a summary of total program cost by element of cost shall be provided.

1. In preparing the cost proposal, Offerors shall complete all applicable forms provided herein, and provide detailed supporting data to explain the basis and rationale for each proposed element of cost. The forms are designed to provide NASA with information necessary to evaluate all Offeror's proposals on a uniform and consistent basis. The composition of some forms may require an Offeror to classify some proposed elements of cost in a manner that differs from the Offeror's normal, disclosed, and/or approved estimating and accounting practices. To facilitate uniformity in evaluation, Offerors shall classify and propose cost elements in consonance with the specified format and furnish addenda which provide complete traceability, clearly explain, and reconcile the differences between the way the Offeror classifies its costs and the way costs are requested to be classified by the RFP cost forms. The contemplated resultant contract will be written in a manner which is consistent with the Offeror's normal, disclosed, and/or approved estimating and accounting practices.

2. The Offeror shall include each of the following forms in its cost proposal. If a form is not applicable then the Offeror shall so state and provide complete supporting rationale. Any reproduction of the forms is the responsibility of the Offeror but must adhere to the format designs. Amounts proposed (excluding hourly labor rates) should be rounded to the nearest whole dollar. For all subcontracted effort, the prospective team members or subcontractors (value over $1,000,000 over the life of the contract) anticipated to perform under this contract shall complete all forms. The completed forms should be submitted through the prime contractor to the Government for evaluation. If the subcontractor considers any of this information to be proprietary data, it is incumbent upon the prime contractor to insure that the completed forms are submitted, directly from the subcontractor to the Government contracting officer, not later than the proposal due date specified in this solicitation.

Cost Form No.	Title
A	Summary of Total Program Cost
B	Total Program Cost by PWS by Year
C	Staffing Plan by PWS by Year
D	Labor Costs
E	Payroll Additives
F	Fringe Benefits
G	Direct Materials, Vendor Maintenance, Software, Travel and Equipment
H	Subcontracts
I	Other Direct Costs
J	Overhead and G&A
K	Personnel and Fringe Benefit Policies
L	Phase-In
M	Fully Burdened Rates for ID/R Tasks
DD Form 1861	Contract Facilities Capital Cost of Money

3. The required cost data listed below is designed to permit the Offerors to develop and propose direct labor from their individual and unique labor descriptions and categories. To facilitate the evaluation of Offeror's staffing and cost without arbitrary classification by the Government, each Offeror shall consolidate the direct labor into the categories of labor provided in Forms A through M. The formats should be followed in all cases.

The consolidated staffing provided is not intended to indicate that a particular skill is required or desired. This determination is made by each Offeror. Once the staffing is defined, it should then be conformed to the classifications provided for evaluation purposes only.

The Offeror shall furnish a schedule (providing complete traceability and supporting rationale) showing the individual labor categories that were conformed to those categories indicated on Forms A through M.

For the labor categories on Forms A-M, the following descriptions are types of positions that should be included.

Manager	Program Manager, Deputy Program Manager, Senior Manager, Manager.
Engineering	Computer Engineer, Network Engineer, Telecommunications Engineer, Audio/ Video Engineer.
Information Technology Specialist	Information System Analyst, Computer Scientist, Software Programmer, Data Entry Specialist, Customer Interface Specialist, Help Desk Specialist.
Technician	Audio/ Video Technician, Computer Technician, Network Technician, Supply Technician, Lab Technician, Telecommunications Technician.

Operator	Audio/ Video Operator, Computer Operator, Network Operator, Telephone Operator, Telecommunications Operator, Photographer.
Documentation	Writer/ Producer, Graphical Illustrator, Artist, Technical Writer, Records Manager.
Professional	Professional Planner, Professional Scheduler, Security Professional, Quality Professional, Safety Professional, Personnel Professional, Procurement Professional, Professional Buyer.
Financial	Financial Analyst, Accountant
Administrative	Secretary, Typist, Clerk

4. Instructions for completing the provided forms are as follows:

a. Form A - Summary of Total Program Cost -

(i) The Offeror (both prime and major subcontractors) shall complete the attached Form A. This form shall include the total program costs by year showing: labor hours, weighted average labor rates by broad labor category, rates, and amounts; labor overhead bases, rates, and amounts; nonlabor amounts; G&A base, rate, and amount; and Cost Of Money (COM) base, rate, and amount. The Offeror shall utilize only the categories of cost set forth on the attached Form A. The detailed cost schedules required in paragraph (ii) below shall show how the Offeror's disclosed/normal accounting cost categories were conformed and summed to the cost categories specified in Form A. It is not necessary to provide a separate Form A for each PWS level.

(ii) In addition, detailed cost schedules shall be provided by the prime and each major subcontractor that support the development of the Form A and Form B total amounts proposed. The prime and each major subcontractor shall submit this data for the base period by year, total base period, each option, and total contract. Cost data shall be presented by Contract/Contractor fiscal year. The major subcontractors may submit the detailed cost breakdown directly to the Government if the data is considered by the company to be proprietary in nature. Format consistent with each Offeror's normal, disclosed, and/or approved estimating and accounting practices may be employed, provided it shows the Offeror's established labor classifications, labor hours and rates as applied and summed (hours and dollars) to the RFP specified broad categories of labor on Forms A and B. All cost categories, including overhead/breakdown rates, base amounts, and applications shall be clearly shown and shall be summed to the Form A labor, overhead, and nonlabor cost categories, and the Form C labor categories.

(iii) For evaluation purposes, the Offeror shall submit the costs for providing a full twelve (12) months of effort for the first contract year assuming that no phase-in was required; this will provide the UNITeS Work Package Evaluation Team (WPET) with a common basis for comparing each of the proposals.

b. Form B - Total Program Cost by PWS Level by Year -

The Offeror (both prime and major subcontractors) shall complete the attached Form B. This form shall include the total program costs by PWS level showing: labor hours, weighted average labor rates by broad labor category, rates, and amounts; labor overhead bases, rates, and amounts; nonlabor amounts, excluding direct material, vendor maintenance, software, travel, and equipment; G&A base, rate, and amount; and Cost Of Money (COM) base, rate, and amount. Basic contract and options shall be separately priced. Form B shall be submitted in the specified formats for each PWS cost level identified in Attachment J-15. Separate Forms B shall be provided by the prime and each major subcontractor that support the total. Each form shall include PWS level, title, and description.

Supporting data for relocations shall include expected number of relocations, types of personnel by labor category to be relocated, geographical locations involved, and composition of estimated costs. Supporting data for offsite facilities cost shall include location, leased or owned, basis for selection of site, and basis for proposed costs. For each year of performance, the Offeror shall submit and separately identify the projected cost of: (1) its comprehensive liability/product liability insurance which protects the Offeror from liability claims of third persons; and (2) the comprehensive liability/product liability insurance which protects each of its subcontractors from liability to third persons.
Offerors are encouraged to propose innovative methods for reducing training expenses. The Offeror shall describe the methodology proposed and quantify the estimated reductions associated with each proposed method. The Offeror shall provide complete supporting rationale for estimated reductions. Substantiated reductions will be used in determining probable cost. To substantiate the annual training cost for each of the UNITeS services, provide supporting data to include the cost associated with internal contractor/subcontractor training (as defined in the PWS). Provide training data required for Program Management and Technical employee capability enhancements by contract year

c. Form C – FTE Staffing Plan by PWS Level by Year -

This form shall include the "by year" contract total staffing levels (FTEs) by labor classification to which rates are applied. Provide FTEs on Form C. A separate Form C shall be provided by the prime and each major subcontractor which supports the total. In addition, FTEs shall also be provided in the specified format for each PWS cost level identified in Attachment J-15.

For each supporting Form(s) C, the individual Contractors, both prime and major subcontractor, normal labor classification FTEs shall be shown, conformed, and summed to the

Government specified categories of labor as shown on the enclosed Form C. **NOTE**: Only the Government specified broad categories of labor will be presented on Forms A and B. Each form shall include PWS level, title, and description.

In supporting narrative, provide specific "skill level" information by individual position (Offeror may reference JD/Q forms) that is planned to be applied for accomplishment of the described tasks. This should cover the time period from contract inception through all option periods for each job position.

d. Form D - Labor Costs -

(i) Prepare and submit Form D by each identified position.

(ii) The Offeror shall provide a listing of direct labor costs by category showing straight time hours; proposed hourly rates; straight time costs; overtime hours; base overtime costs; and overtime premium costs. Special attention is invited to the U.S. Department of Labor Wage Determinations included as Attachment J-3. The logic and reasonableness of the relationship between personnel qualifications and proposed labor rate/costs will be carefully evaluated as a significant indicator of the Offeror's understanding of requirements. Should the above referenced Department of Labor Wage Determinations not reflect all labor classifications required for implementation of the Offeror's approach, appropriate action shall be taken and included as part of the proposal, pursuant to the clause entitled "Service Contract Act of 1965, As Amended". All such proposed classifications and corresponding labor rates shall be thoroughly described with complete supporting rationale.

(iii) Equivalent man-years shall be converted to straight time labor hours using the number of man-hours available per year as indicated below. Offerors shall provide, as supplemental data, the typical productive and nonproductive hours per man-year based on their personnel and accounting policies and practices. Nonproductive time is all paid absences, e.g., vacations, holidays, sick leave and other authorized paid absences.

Term	Period Covered	Man-Hours
Base Period Year 1	Jan. 1, 2004- Dec. 31, 2004	2,096
Base Period Year 2	Jan. 1, 2005- Dec. 31, 2005	2,080
Base Period Year 3	Jan. 1, 2006- Dec. 31, 2006	2,088
Option No. 1	Jan. 1, 2007- Dec. 31, 2007	2,088
Option No. 2	Jan. 1, 2008- Dec. 31, 2008	2,096

(iv) Provide the methodology and complete supporting rationale used to establish salary/wage ranges and pricing rates for each individual labor category, including consideration of the following: the various skills and disciplines; the features of the compensation plan designed to enable the Offeror to attract and retain qualified employees; escalation factors; applicability of collective bargaining agreements, if any; and overtime payment

policies. In order to facilitate timely evaluation of cost proposals, unplanned overtime should be estimated at 2 percent of direct hours per year spread equally among the nonexempt employees. If the labor category includes exempt and nonexempt employees, provide the basis of estimate for the nonexempt employees overtime. There will be no advantage in proposing the use of unpaid nonexempt overtime. If unpaid nonexempt overtime is proposed, adjustments will be made to the Offeror's proposal.

Any proposed uncompensated overtime for employees exempt from the overtime requirements of the Fair Labor Standards Act (FLSA) shall be identified, supported, and justified in the written explanation in the cost/price proposal. Uncompensated overtime hours, if any, shall be included in computing the effective labor rate used on Form B. In addition, a clear explanation of how such costs are accounted for shall be provided.

Wage/salary increases shall be in compliance with any applicable union agreements. Offerors shall propose reasonable labor rate increases.

The wage determination rates set forth herein represent the minimum rate of pay for entry-level employees performing under this contract. Offerors should consider the incumbent employees experience level and length of service when proposing rates which are based on retaining incumbent personnel.

The following uniform rates of change for pricing purposes are provided below:

Calendar Year	Escalation Rates
2004	3.7%
2005	3.8%
2006	3.8%
2007	3.7%
2008	3.7%

e. Form E - Payroll Additives

(i) FICA

Use a rate of 7.65 percent. This rate is composed of Hospital Insurance Tax (HIT) at 1.45 percent and Old Age, Survivors, Disability Insurance (OASDI) at 6.20 percent. Maximum earnings subject to OASDI will be $87,000 and HIT will be unlimited.

(ii) Federal/State Unemployment Insurance (FUI/SUI) -- Base proposed FUI/SUI costs on current rates and bases for the Federal Government and the states where the effort is to be performed.

(iii) Worker's Compensation -- Offerors shall provide an explanation and rationale for the average premium rate developed,

considering the various risk categories encompassed by the planned workforce, the geographical distribution of the workforce, and appropriate loss and adjustment experience.

(iv) Other -- For any other expected types of payroll additives, Offerors shall provide an explanation and rationale for the proposed cost of each item.

f. Form F - Fringe Benefits --It is imperative that the Offeror demonstrate their understanding and compliance with the requirements of the Service Contract Act, the Wage Determination, and any applicable union agreements in regard to minimum fringe benefit requirements for non-exempt employees.

Provide estimates on Form F for each fringe benefit cost element (Group Health, Dental, Pension, Sick Leave, etc.) for all employees identified on Form C under the labor categories. Offeror shall demonstrate that the estimates for fringe benefits shown on Form F are incorporated into their proposed contract cost in accordance with their normal accounting and estimating practices for each contract year.

g. Form G - Direct Materials, Vendor Maintenance, Software, Travel, and Equipment -- Annual estimates, exclusive of G&A or other burden, for each year are set forth below and should be used for estimating purposes.

(Dollars in thousands)

Period	Direct Materials	Vendor Maintenance	Software	Equip.	Travel
Base Period Year 1	1,850	13,468	7,077	38,981	2,556
Base Period Year 2	1,906	14,244	7,766	29,041	2,573
Base Period Year 3	1,963	14,933	7,818	25,461	2,597
Option No. 1	2,022	15,704	8,269	25,519	1,979
Option No. 2	2,082	15,843	8,618	25,519	1,979

h. Form H - Subcontracts -- Offerors shall provide an explanation and rationale for all proposed subcontracts. The Offeror shall list each proposed subcontract (major and minor), provide the amount by contract year, basis for selection, equivalent staffing, function(s) to be performed, and applicable PWS element(s).

Supporting data shall include a copy of any teaming agreements applicable to this effort. The following information shall also be provided:

The number of firms solicited, the number of proposals/quotes received, and the number found to be acceptable.

The cost or price analysis accomplished.

Status of subcontractor’s business systems (accounting, compensation, estimating, purchasing, and property management).

Names and addresses of the subcontractors tentatively selected and basis of selection, i.e., low bidder, delivery schedule, technical competence, etc.

Offeror’s rating of the subcontractor’s competence (fair, good, excellent).

Type of contract and estimated cost and fee or profit.

Affiliation with the prime, if any.

Whether or not subcontractor or team member is a small or small disadvantaged business concern.

The extent of subcontract supervision anticipated.

i. Form I - Other Direct Costs -- Identify and explain the type and amount of costs not included on other forms to the PWS level specified in Attachment J-15, which are to be charged directly to the contemplated contract. Offerors are reminded that they are not to price PWS 3.6 WAN transmission services (circuits).

For other types of direct charges, the manner of presentation is left to the Offeror's discretion. Supporting data shall be sufficiently detailed to permit NASA to fully understand the basis for the estimate.

j. Form J - Overhead and G&A -- Provide data indicated on Form J for each overhead pool (if any) and G&A. As supporting data, show the element for the Base Period Year 1, Base Period Year 2, Base Year Period 3, and each option period. For proposal purposes, do not include any payroll additives or fringe benefits that were proposed on Forms E or F nor any nonproductive time included on Forms A, B, and D even though your normal cost accounting system may account for these costs as overhead or G&A. As previously noted, the resultant contemplated contract will be written in a manner which is consistent with the successful Offeror's normal, disclosed, and/or approved estimating and accounting practices.

All proposed overhead/burden rates (labor overhead, material handling, procurement burden, G&A expense, etc.) shall be provided with the proposal.

Each Offeror shall propose G&A ceiling rates for each of the years of contract performance. Ceiling rates should be stated in terms of Offeror’s accounting (fiscal) year, as well as the effective ceiling rate for each contract year. These ceiling rates will be used in establishing the Government’s cost realism analysis for evaluation/selection purposes.

k. Form K - Personnel and Fringe Benefits Policies -- This form provides a standard format to disclose, by employee category, the application of personnel policies and fringe benefits which will be in effect at the time of award. Although only brief explanations are desired, sufficient information is required to allow an evaluation and estimate of all potential costs which will arise upon award of the contract. Comments are required on all of the items listed below under the proposed column, whether or not the policy is written. The consistent practice of the Offeror and its applicability to this proposal is to be provided. If the items below are not applicable, so state. ITEMS PERTINENT TO THE OFFEROR WHICH ARE NOT IDENTIFIED BELOW MUST BE INCLUDED IF COST RECOVERY IS ANTICIPATED.

Relocation	Overtime Policy
Insurance - Life	Other Differentials
Insurance - Health	Compensatory Policy
Severance Pay	Suggestion Award Policy
Per Diem	Off-site Differential
Vacation	Bonus Plan
Retirement	Shift Premium Policy
Holidays	Training
Sick & Personal Leave	Special Workweek

l. Form L - Phase-In -- Provide a complete summary of all phase-in costs, plus balance of Base Year 1, by element of cost, on Form L. Proposed phase-in will be for a period not to exceed ninety (90) calendar days with an anticipated starting date of January 1, 2004. The cost and labor force shall be presented in the same detail as required by Form A. Provide detailed schedules supporting the development of the proposed Form L costs

(for the prime and each major subcontractor) showing how the Offeror's normal/disclosed cost categories were conformed and summed to the Form L cost categories.

Phase-in costs shall include all costs incurred prior to full assumption of the PWS. These costs shall include those required to secure the initial staff, equipment, etc. and shall reflect the cost associated with staffing build-up to full assumption of contract responsibility. The Offeror’s submission shall contain a separate and complete phase-in estimate delineated by element of cost in accordance with the Offeror’s normal estimating procedures. Include relocation and travel cost associated with phase-in with supporting rationale.

m. Form M - Fully Burdened Rates For ID/R Tasks- Provide fully burdened rates (excluding fee) for each of the labor categories required to perform the efforts specified in PWS sections 5.1, 3.9.4, and 5.10.4. Use the same labor categories that have been provided.

n. DD Form 1861 - Contract Facilities Capital Cost of Money -- If Facilities Capital Cost of Money is proposed, in accordance with FAR 15.408(h), the Offeror shall submit DD Form 1861, showing the calculation of Facilities Capital Cost of Money. Since it is NASA's policy to reduce fee/profit objectives dollar-for-dollar for imputed facilities capital cost of money, Offerors may elect to forego the development of facilities capital cost of money and attendant profit/fee objective reduction. If this approach is elected by the successful Offeror, the clause in FAR 52.215-31 will be included in the resultant contract.

5. Computerized Input Instructions

a. In addition to the requirements previously mentioned, Offerors and subcontractors/team members are required to submit cost information data on Forms A through M and DD1861 on CD-ROM.

b. Two copies of each CD-ROM are to be submitted. Each CD-ROM provided is to have an external label indicating:

The name of the Offeror.
The RFP number.
A list of the files contained on the disk.

c. For each PWS in Form C, there shall be a corresponding PWS in Form B. Higher PWS levels shall be the sum of each lower level. There shall be a computer formula link between Forms B and C by the corresponding broad labor categories in the hour columns. For each PWS Level on Forms B and C, there shall be a corresponding range name denoted by the PWS number. This will enable the WPET to locate any one PWS level in a timely manner. There shall also be a computer formula link established between Form CX (summary) and C1, C2, C3, etc.

The Microsoft Excel spreadsheet format files are to be submitted to the Government using the following file identifier system:

The first two alpha characters of the filename will be based on the Offeror's company names (e.g., General Motors Corporation might be "GM").

The third and fourth alpha characters of the filename will contain, if applicable, the alpha character identifier to the subcontractor of which the spreadsheet format is submitted. If the format is not related to subcontractor data, "XX" is to be inserted in the filename for these alpha character positions.

The fifth file identifier refers to the RFP form on which the data are contained. The applicable alphabetic letter (A through M) will be used for these spaces in the filename.

The sixth file identifier refers to the number of the forms if more than one form exists.

To the extent of any inconsistency between data provided on the disks and proposal hard copies, the hard copy data will be considered to be the intended data.

To facilitate proposal preparation, please see MSFC UNITeS Attachment C, Background and Historical Data

(End of provision)

L.16 (UNITeS) PROPOSAL MARKING AND DELIVERY

(a) Proposals hand carried to MSFC shall be delivered to Building 4203, the southwest door, between 8:00AM and 1:00PM Central Time on May 27, 2003. Past performance volume and key personnel resumes are requested in advance, by 1:00PM Central Time on May 12, 2003. Offerors should allow ample time for processing through the gate at Redstone Arsenal and MSFC Security. For both advance material and the proposals, Offerors shall provide at least one working-day notice (NOTE: May 26th is the Memorial Day Holiday) of intended delivery personnel, to allow coordination with the Redstone Arsenal gates. If delivery personnel are not currently badged to enter Redstone Arsenal, a valid drivers license, current insurance card, and registration for their vehicle should be available for presentation at the gate. Upon arrival, Offerors shall contact the person below to accept delivery:

Jeffrey S. Jackson
Phone: (256) 544-8935

(b) Offerors shall contact the Contracting Officer identified on the SF33 to coordinate the delivery of any proposal that will be hand carried to MSFC on a date prior to those specified in paragraph (a).

(c) Proposals received after May 27, 2003 will be processed in accordance with FAR Clause 52.215-1 "Instructions to Offerors – Competitive Acquisitions."

[END OF SECTION]

M.2 (UNITeS) SOURCE SELECTION AND EVALUATION FACTORS—GENERAL

Work Package Evaluation Team (WPET)

A Work Package Evaluation Team (WPET), appointed by the Source Selection Authority at NASA Headquarters, will evaluate the offers submitted for this Request for Proposal (RFP). Proposal documentation requirements set forth in this RFP are designed to provide guidance to the Offeror concerning the type of documentation that must be submitted to the WPET. Acceptable offers will be evaluated in accordance with the factors set forth below and, if determined necessary, oral or written discussions (or both) will be conducted with Offerors determined to be within the competitive range.

The voting members of the WPET are:

Steve M. Tesney
Deborah S. Bowerman
Jeffrey S. Jackson
Irene E. Taylor
Steven D. Smartt

Relative Importance of Evaluation Factors/Subfactors

(1) While only the Mission Suitability Factor is scored, in order to provide Offerors with an indication of the relative importance of the three factors, the following information is furnished:

Of the three factors Mission Suitability is the most important. Alone, Past Performance and Cost are each of somewhat less importance than Mission Suitability, and, as related to each other, are approximately of equal importance.

(2) Per FAR 15.304(e) the following information is provided: All evaluation factors other than cost or price, when combined, are significantly more important than cost or price.

M.3 (UNITeS) MISSION SUITABILITY FACTOR

The Mission Suitability Factor assesses the excellence of the proposed approach for satisfying the Performance Work Statement (PWS) and the Offeror’s ability to perform. The Offeror’s degree of understanding of the requirements will be assessed in all Mission Suitability subfactors. A key measure in assessing the Offeror’s understanding of the requirements is the adequacy of the Offeror’s risk analysis and the recommended approach to minimize the impact of identified risks to the overall success of the program. In addition to risk analysis, cost realism, or the lack thereof, will be used in evaluating the Mission Suitability Subfactors as an indicator of the Offeror’s understanding of the requirement.

The subfactors to be used in evaluating Mission Suitability and their corresponding weights are listed below in descending order of importance:

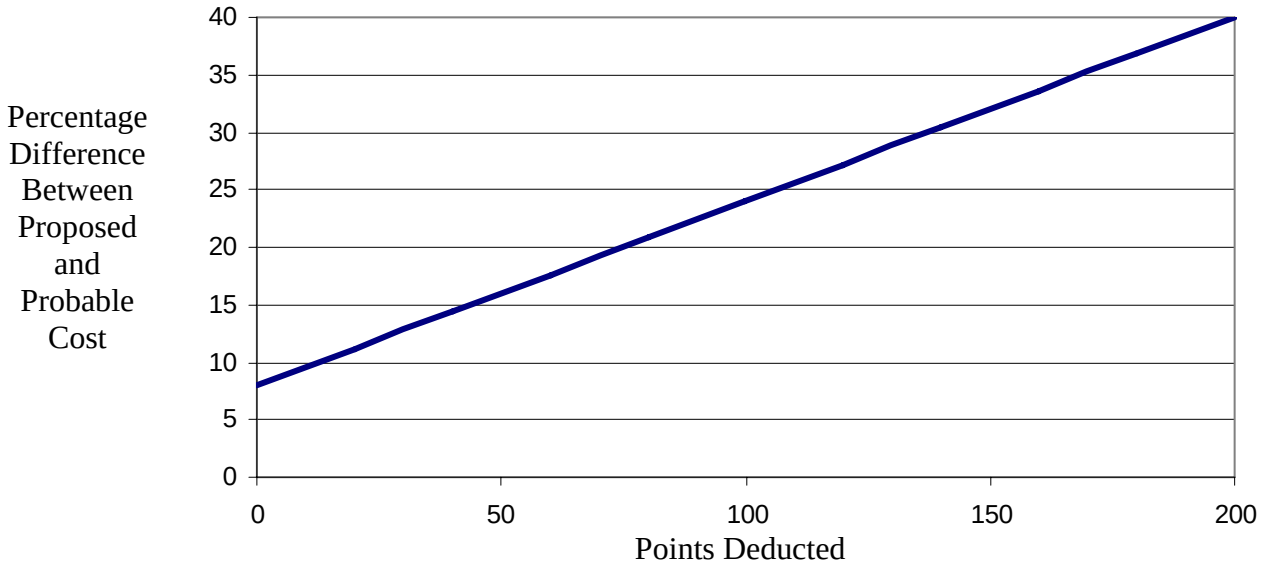
Mission Suitability Subfactor	Weighting
Management/Operating Plan	325 points
Technical Approach	325 points
Staffing	250 points
Environmental, Safety And Health	50 points
Small Disadvantaged Business (SDB) Participation	50 points

Total	1,000 points

The numerical weights assigned to the five subfactors identified above are indicative of the relative importance of those evaluation areas.

The Government will proportionally adjust the Offeror's Mission Suitability score for an assessed overall lack of cost realism. Although G&A ceiling rates will be utilized in developing the most probable cost, they will not be utilized as part of the Mission Suitability score adjustment. Therefore, the difference between the proposed and ceiling G&A rates will not be a factor when calculating this adjustment. A maximum of 200 points may be deducted from an Offeror's Mission Suitability score depending on the size of the cost adjustment necessary to establish the most probable cost. For each percentage point of difference between an Offeror's proposed cost and the WPET's most probable cost above 8%, 6.25 points will be deducted from the Offeror's Mission Suitability score. A 40% differential between an Offeror's proposed cost and the WPET's most probable cost would result in the maximum allowable deduction of 200 Mission Suitability points. However, there will be no adjustments made to the Mission Suitability score for cost adjustments of less than 8%.

A Mission Suitability cost realism point adjustment schedule is provided below.



Each proposal will be evaluated and scored based on the Mission Suitability Subfactors set forth below. (Note: the alphanumeric bullets within each supporting subfactor shall not be construed as an indication of the order of importance or relative weighting within the individual subfactors as there are no discrete point values attached to any of the bullets; the bullets are included to facilitate comparison with the requirements of Section L.)

Subfactor 1 - <u>Management/ Operating Plan</u>

This Subfactor will be used to evaluate the Offeror's management and operating approach for providing the services delineated in the PWS. The adequacy, completeness, technical soundness, methods, operations and excellence of the Offeror's approach will be evaluated encompassing:

MA1 –Management Concept, Organizational Structure, and Core Values

The Offeror's overall management concept and proposed organizational structure, identification of clear lines of authority, and rationale for approach to phase-in, planning, controlling, and reporting contract activities. The approval status of the Offeror's accounting, estimating, property management, employee compensation, and purchasing systems. The Offeror's understanding of MSFC core values and the extent to which their values align with MSFC's.

MA2 - IT Integration

The Offeror's demonstrated understanding of the need for and commitment to a comprehensive system for integration of IT services, and, the efficiency, effectiveness and flexibility of the Offeror's approach will be evaluated.

MA3 -Autonomy and Authority

The Offeror's extent of autonomy and authority granted to the on-site program manager to manage local operations, relationship to the parent organization, and approval process that will be made outside the local organization.

MA4 - Teaming and Subcontracting Arrangements

The effectiveness of the Offeror's approach to teaming and subcontracting.

MA5 - Internal/ External Communications

The effectiveness of Offeror's approach for ensuring good internal and external communication.

MA6 - Personnel Training

The Offeror's demonstrated ability to provide and track completion of necessary orientation and training for employees to assume functions required by this PWS.

MA7 - Export Control

The Offeror's demonstrated ability to implement policies and procedures to prevent sensitive Government technologies and data from being accessed or acquired by unauthorized parties. These policies and procedures will be evaluated for effective control of data and hardware exports, and shall comply with both the Export Administration Regulations (EAR) and the International Traffic and Arms Regulations (ITAR) export requirements.

MA8 - IT Security Plan

The Offeror's demonstrated ability to effectively protect Government IT assets, infrastructure, and sensitive and non-sensitive information. The draft IT Security Plan will be evaluated for effectiveness of the contractor's process for implementing information security including personnel background screening, personnel awareness and training, information protection, and security incident response.

MA9 - IFMP Implementation and Production Support

The Offeror's management approach for the implementation and production support of NASA's Integrated Financial Management Program (IFMP).

MA10 - Risk Management

The adequacy and effectiveness of the Offeror's approach to implementing and managing a risk management program shall be evaluated.

Subfactor 2 - Technical Approach

This subfactor will be used to evaluate the Offeror's technical approach to fulfilling the requirements in the PWS. The adequacy, completeness, technical soundness, methods, operations and excellence of the Offeror's approach will be evaluated encompassing:

TA1 - Requirements Execution

The Offeror's approach and methods to fulfill the PWS, the activities that will be performed in the accomplishment of the PWS, and the methods and/or techniques used in planning, scheduling, processing, controlling and completing the PWS.

TA2 - Customer Relationship

The effectiveness of the described process for managing customer relationships, understanding customer requirements, and effectiveness of reporting.

TA3 - Innovation

The Offeror's approach and methods for infusing new technology. How that approach addresses innovation, cost effectiveness and low cost planning shall be evaluated. The Offeror's demonstrated ability to assess both existing and evolving technologies as they relate to mission services and make recommendations regarding possible implementation, impacts to infrastructure, and associated cost benefits.

TA4 - IFMP Technical and Operations Architecture

IFMP Technical Architecture: The Offeror's approach for developing, implementing and maintaining the technical environments for the IFMP modules with emphasis on SAP

environments. The Offeror's demonstration of their understanding of the existing IFMP technical environment (both data center and distributed), and their approach to interacting with business stakeholders and program management to translate application and functional requirements into technical designs.

IFMP Functional Support: The Offeror's approach to providing functional support in partnership with the Government in an integrated product team environment.

IFMP Application Development: The Offeror's experience implementing SAP in large, distributed organizations. The Offeror's approach to managing application development in the context of an ERP environment. The Offeror's approach to working with the implementation contractor to receive development requirements, coordinate analysis and design issues, and repair problems found during testing.

IFMP Application Operations: The Offeror's approach to the Operations and Sustaining Support (O&SS) of the IFMP modules with evidence of past experience in the production support of SAP in large, complex business environments.

TA5 – Technical Risk Analysis

The Offeror's identification of risk and recommended mitigation for risks which may impact this Subfactor.

Subfactor 3 - Staffing

This subfactor will be used to evaluate the Offeror's approach for providing the staffing and Key Personnel to perform the requirements of this PWS. The following will be evaluated:

S1 – Staffing Approach

The adequacy of the staffing levels, job descriptions, and rationale for FTEs proposed for each PWS section.

S2 – Phase-In

The Offeror's approach for a contract phase-in with minimal project impact.

S3 – Critical Skills

The Offeror's approach to recruiting and retaining specialized, critical, and unique skills.

S4 –Corporate Resources

The Offeror’s ability to use existing corporate resources to obtain specialized knowledge and skills necessary for this effort, including an SAP R3 Operational environment.

S5 – Subcontracting

For those Offerors required to submit a Small Business Subcontracting Plan, Offeror will be evaluated on the proposed small business, women-owned small business, HUBzone small business, veteran owned small business, and historically black colleges and universities and other minority institutions in comparison with the goals stated in Section L.12, on the methods for achieving the goals (small disadvantaged business will be evaluated as a separate Subfactor under Mission Suitability), and on the types and amount of work proposed to be performed with emphasis on utilization of such entities in high technology efforts.

S6 – Workforce Flexibility

The Offeror’s flexibility to adjust to varying workloads.

S7 – Hiring and Retention

The Offeror’s total compensation plan and personnel policies and their ability to attract, motivate, and retain a qualified workforce.

S8 –Key Personnel/ Key Positions

The experience (technical and management) of each key person for the position being proposed, the qualifications of that key person, their degree of commitment, and their past performance. The rationale for designating a particular position as key shall also be evaluated.

S9 – Staffing Risk Analysis

The Offeror’s identification of risk and recommended mitigation for risks that may impact this Subfactor.

Subfactor 4 - <u>Environmental, Safety, and Health</u>

The Offeror’s environmental, safety and health policies and processes will be evaluated to:

SH1 – Workplace Safety

Assess focus on workplace safety and adherence to safety and health policies. The draft On-site Safety and Health Plan will be evaluated for the effectiveness of the Offeror's methods to ensure management commitment and employee involvement, identification and analysis of worksite hazards, hazard prevention and control, and safety and health training program.

SH2 – Environmental, Safety, and Health Risk Analysis

The Offeror's identification of risk and recommended mitigation for risks which may impact this Subfactor.

Subfactor 5 - Small Disadvantaged Business (SDB) Participation

This subfactor will be used to evaluate the Offeror's SDB participation targets per Provision L.16 "Small Disadvantaged Business Participation Program-Targets." In accordance with NFS 1815.304(B), SDB concerns that do not waive the price evaluation adjustment provided for at FAR 52.219-23 in Section I of this solicitation will receive 0 (zero) points under this subfactor.

SD1 – Small Disadvantaged Business (SDB) Participation

The following will be evaluated:

- The total targets for SDB participation expressed both in dollars and percentage of total contract value.
- The complexity and variety of high technology work to be performed by SDBs.
- The probability that the Offeror's proposed approach and procedures along with its past record of accomplishment will ensure attainment of the proposed SDB participation targets.

SD2 – Small Disadvantaged Business (SDB) Participation Risk Analysis

The Offeror's identification of risk and recommended mitigation for risks that may impact this Subfactor.

(End of provision)

M.5 (UNITeS) COST/PRICE EVALUATION FACTOR

The adequacy and realism of the cost proposal and the probable cost to be incurred will be evaluated. The Cost factor, although not scored numerically, is relevant in determining the Offeror's understanding of the contract and its resource requirements and will be evaluated. Estimated cost and fees for the base period (3 years) and all options will be evaluated. The Government assessment of the probable "cost of doing business" with each Offeror, of the possible cost growth during the course of the contract, and of features that could cause a given proposal to cost more or less than proposed will be included in this evaluation. Proposed costs will be adjusted in order to report to the Source Selection Authority the probable "cost of doing business" with each Offeror for the base and option periods. G&A ceiling rates will be used in establishing the most probable cost. For evaluation purposes, base period costs shall be on a full 36-month period of performance basis. Phase-in costs will not be included in the base price, but they will be separately identified. Both the Offeror's proposed cost and the Offeror's probable cost developed by the Government will be presented to the Source Selection Authority.

Each Offeror's proposed phase-in costs will be identified separately from the most probable cost and reported to the Source Selection Authority. Adjustments to the proposed phase-in costs will not be made by the WPET; however, the overall adequacy and realism of the proposed phase-in costs will be reported to the Source Selection Authority.

The adequacy and realism of the loaded rates proposed for the Requirements work and the probable cost to be incurred will be evaluated. The loaded rates for the base period (3 years) and all options will be evaluated. The Government assessment of the probable "cost of doing business" with each Offeror will be included in this evaluation. G&A ceiling rates will be used in establishing the most probable cost.

(End of provision)

[END OF SECTION]

KEY PERSONNEL RESUME
POSITION DESCRIPTION

(COMPLETE ONE FORM FOR EACH KEY POSITION)

PROPOSED POSITION TITLE: _____

PROPOSED POSITION SALARY: _____

NAME OF PROPOSED PERSON: _____

REASONS FOR SELECTING THIS AS A KEY POSITION: _____

_____

_____

_____

PERCENT OF TIME PROPOSED PERSON WILL SPEND WORKING IN THIS POSITION:

_____

POSITION DESCRIPTION, INCLUDING RESPONSIBILITIES AND AUTHORITY:

_____

_____

_____

REASONS FOR ASSIGNING PROPOSED PERSON TO THIS POSITION:

_____

_____

HAS _____ **HAS NOT** _____ **BEEN CONTACTED AND**

IS _____ **IS NOT** _____ **COMMITTED TO THE PROPOSED POSITION.**

HAS _____ **HAS NOT** _____ **BEEN INCLUDED IN ANY CONCURRENT PROPOSAL.**

NOTE: THE GOVERNMENT MAY VERIFY QUALIFICATIONS AND COMMITMENTS WITH THE INDIVIDUALS PROPOSED.

KEY PERSONNEL RESUME
EDUCATION, CERTIFICATION AND AWARDS

(COMPLETE ONE FORM FOR EACH KEY PERSON)

NAME: _____ PROPOSED POSITION: _____

EDUCATION: (IF ANY)

COLLEGE/UNIVERSITY - UNDERGRADUATE, GRADUATE, HONORARY DEGREES

TYPE & YEAR OF DEGREE	MAJOR	COLLEGE/ UNIVERSITY	YEARS ATTENDED

PROFESSIONAL AND/OR TECHNICAL TRAINING (LIST)

TYPE OF TRAINING	WHERE RECEIVED	DATE

PROFESSIONAL REGISTRATION/CERTIFICATION: (IF ANY)

TITLE/TYPE	STATE/SOCIETY	YEAR

BRIEF STATEMENT DETAILING ACTIVITIES/ACCOMPLISHMENTS (E.G., AWARDS, HONORS, PROFESSIONAL ORGANIZATIONS, ETC.)

NAME: _____ PROPOSED POSITION: _____

START WITH THE PRESENT OR MOST RECENT POSITION. CONTINUE IN REVERSE CHRONOLOGICAL ORDER WITH SEPARATE WORK EXPERIENCE BLOCKS TO SHOW CHANGES IN EMPLOYMENT, SIGNIFICANT CHANGES IN JOB DESCRIPTIONS AND/OR DUTIES, AND PERIODS OF UNEMPLOYMENT. SUPERVISOR AND CUSTOMER REFERENCES WILL BE CONTACTED DURING THE PROPOSAL EVALUATION. DO NOT SUBMIT WORK EXPERIENCE FOR TIME PERIODS PRIOR TO 1991.

A. DATE: FROM: _____ TO: _____

MONTH YEAR MONTH YEAR

B. TITLE: _____

C. EMPLOYER NAME: _____

ADDRESS: _____

SUPERVISOR'S NAME: _____ TEL. NO. _____

TYPE OF BUSINESS: _____

D. CONTRACT NO./PROJECT TITLE: _____

CO NAME: _____ TEL. NO. _____

COTR NAME: _____ TEL. NO. _____

E. CUSTOMER REF NAME: _____

ADDRESS: _____

POSITION/TITLE: _____

TELEPHONE NO. _____

F. NUMBER OF EMPLOYEES SUPERVISED: _____

G. ANNUAL SALARY: STARTING: _____ FINAL: _____

H. BRIEF DESCRIPTION OF DUTIES:

_____

_____

Job Description/Qualification Form (JD/Q) [Revised 05-14-02]

TITLE	Contractor Job Title: _____ SCA Wage Determination Job Title: _____ SCA Directory of Occupations Classification Number _____
TYPE	☐ EXEMPT ☐ NON-EXEMPT
SALARY RANGE	ANNUAL FROM: _____ TO: _____ HOURLY FROM: ____ TO: ____
FRINGE BENEFITS	AVERAGE HOURLY COST OF FRINGE BENEFITS _____
DESCRIPTION	_____ _____ _____
QUALIFICATION REQUIREMENTS	EDUCATION: _____ EXPERIENCE: _____ _____

TITLE	Contractor Job Title: _____ SCA Wage Determination Job Title: _____ SCA Directory of Occupations Classification Number _____
TYPE	☐ EXEMPT ☐ NON-EXEMPT
SALARY RANGE	ANNUAL FROM: _____ TO: _____ HOURLY FROM: ____ TO: ____
FRINGE BENEFITS	AVERAGE HOURLY COST OF FRINGE BENEFITS _____
DESCRIPTION	_____ _____ _____
QUALIFICATION REQUIREMENTS	EDUCATION: _____ EXPERIENCE: _____ _____

TITLE	Contractor Job Title: _____ SCA Wage Determination Job Title: _____ SCA Directory of Occupations Classification Number _____
TYPE	☐ EXEMPT ☐ NON-EXEMPT
SALARY RANGE	ANNUAL FROM: _____ TO: _____ HOURLY FROM: ____ TO: ____
FRINGE BENEFITS	AVERAGE HOURLY COST OF FRINGE BENEFITS _____
DESCRIPTION	_____ _____ _____
QUALIFICATION REQUIREMENTS	EDUCATION: _____ EXPERIENCE: _____ _____

NOTE: **This requirement involves work at various locations around the country; therefore, Offerors must sort their JDQ Forms submittals by work locations (i.e., MSFC, JSC, KSC, MAF, GSFC, etc.**

TITLE

There are three Job Description/Qualification forms per page. One form is to be completed for each job title. (***NOTICE***: This applies to all proposing subcontractors as well)

- **Contractor Job Title -** Enter your job title **if different from the SCA job titles**.
- **SCA Wage Determination Job Title -** Enter the accurate Service Contract Act (SCA) job title and SCA job number from the SCA Wage Determination **or** the job title from the Collective Bargaining Agreement, as appropriate.

- [***NOTE***: Detailed position descriptions are contained in the SCA Directory of Occupations, Fourth Edition, dated January 1993 (as amended by the Third Supplement, dated March 10, 1997) for each job classification listed on the wage determination]. The SCA Directory of Occupations can also be found on-line at the following address: http://www.dol.gov/dol/esa/public/regs/compliance/whd/wage/main.htm

TYPE

Place an **X** in the Box that is applicable to the job title.

- **Exempt** - Those job classifications identified in Title 29 CFR Part 541 as exempt classifications.
- **Nonexempt** - Job classifications other than those exempt by 29 CFR Part 541.

SALARY AND WAGE RANGES:

For the specified job title, enter the lowest annual pay in the **Annual From** space and the top annual pay in the corresponding **To** space ***or*** enter the equivalent lowest hourly pay in the **Hourly From** space and the top hourly pay in the corresponding **To** space.

FRINGE BENEFITS:

Provide the **exact average hourly cost of fringe benefits**.

NOTICE: The average hourly cost of **fringe benefits** for service (non-exempt) employees **shall not include** the cost of vacation pay, holiday pay, liability insurance, state and Federal taxes, professional liability insurance, unemployment or workmen's compensation insurance, etc. See FAR Clause 52.222-41 (d) for full details. ***NOTE***: The **average hourly cost** of fringe benefits must be computed separately for **Exempt** (those employees not covered by the SCA) and **Nonexempt** (those employees covered by the SCA) job titles.

DESCRIPTION

Briefly describe the duties performed under the specified job title.

QUALIFICATION REQUIREMENTS

Identify the education and experience requirements for an employee to qualify for the specified job title.

(Revised 03/24/2003)

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1. INTRODUCTION

1.1 Disclaimer

The background and historical data contained herein is not intended to restrict prospective Offerors in their approach to proposal preparation. This information is provided for the sole purpose of giving all Offerors a better understanding of the requirements contained in this solicitation. The information provided constitutes a snapshot within a certain period of time, Fiscal Year 2001 (FY01) and 2002 (FY02). The requirements described are subject to modifications due to hardware/software technology changes, changing information resource management philosophies, current trends and new developments, and other factors. This historical data does not necessarily reflect the optimum approach for performing the work requirements and, further, should not be construed as being precise parameters governing the size of the effort. As stated elsewhere in this Request For Proposal, innovations shall be considered in the Government's evaluation of Offerors' proposals. Further, the quantity of work to be performed may vary as the Center workload expands, or changes, due to changing roles of MSFC and NASA. Such changes are considered to be within the general scope of the UNITeS contract.

1.2 Overview

Recent changes in both the Agency's and MSFC's business drivers and information technology (IT) requirements have outpaced MSFC's ability to meet demands and be a proactive IT partner.

In the future, the Agency must:

a. Move from a Center-centric to Agencywide Implementation model.
b. Support the ability to make cross-Agency decisions.
c. Allow Enterprises/initiatives/programs/projects to seamlessly utilize Agency resources such as collaborative engineering, regardless of physical location.
d. Support improved implementation of the five Agency Enterprise's structure and strategies.

In the future, MSFC must:

a. Move IT provision from a technology-function approach to a customer-service-based approach.
b. Drive IT cost savings through technology optimization, technology rationalization and consolidation of IT support services, without compromising the Agency's or MSFC's missions.
c. Provide an IT services organization that works as a proactive IT partner with MSFC customers, as opposed to a reactive problem solver.
d. Support the ability to monitor and measure IT programs/projects and infrastructure performance and readiness levels.

e. Support the ability to make informed, Centerwide IT investment decisions that involve all stakeholders.

To aid in accomplishing the above goals, MSFC will implement an IT Governance strategy. In this formal process, Center leadership will ensure that the resources applied to IT are invested wisely, that IT projects are fully aligned with the Agency's and MSFC's missions and goals, and that technology is managed in accordance with architectural standards and guidelines.

MSFC faces a major challenge in overlaying IT Governance onto its current business model, due to its complexity and the lack of processes to assure full consideration of all aspects of IT planning at MSFC. Some IT activities will continue to occur at the MSFC Program level, while the IT infrastructure will continue to be centrally managed by the Office of the CIO, while other IT projects or programs will be managed centrally at MSFC for the Agency. Centralized management of resources and achieving efficiencies through economies of scale must be balanced with providing requirements-based service that meets our customers' needs, provides innovation, and achieves standard and interoperable systems.

The supporting environment into which IT Governance will be implemented must allow programs, projects, and initiatives to seamlessly and securely utilize IT resources, regardless of geographic location. It must provide communication processes that channel customer requirements, solicit customer input, inform customers of change, and promote MSFC IT providers as customer-focused and value-added. The environment must reflect clearly defined service offerings and remain both cost-competitive and technology driven to meet our customer needs. It is critical that the environment be able to flexibly and cost-effectively bring needed skills to achieve timely and value-added solutions for MSFC customers as their requirements change. Finally, it is also critical that out IT environment provide security and service continuity levels commensurate with the levels of values of MSFC's data.

The Marshall Space Flight Center's Chief Information Officer (CIO) is responsible for providing the following services:

a. Agencywide Information Services: These services include IT security, National Security Systems, wide area network, control center, data center, applications, Digital Television (DTV), Russia IT support, and customer services.
b. Integrated Financial Management Program (IFMP) Integration Services: These services are provided to the IFMP Integration Project Office (IPO) at MSFC. These services include infrastructure support, module project support, and operations and sustaining support.
c. Marshall Space Flight Center (MSFC) Services: These services include IT systems support for programs and projects for which MSFC is responsible. These services include applications software, web, midrange computer systems, telecommunications, IT security, audiovisual information,

documentation repository, hardware maintenance, IT procurement, and customer support.

d. Outsourcing Desktop Initiative for NASA (ODIN): These services consist of a long-term outsourcing arrangement with the commercial sector (currently Lockheed Martin). This arrangement transfers the responsibility and risk for providing and managing the vast majority of MSFC's desktop, server, and intra-Center communications assets and services.

1.3 Program Information Systems Mission Services (PrISMS) Contract

The Program Information Systems Mission Services (PrISMS) Contract, NAS8-60000, supports MSFC and Agency requirements. Computer Sciences Corporation is the prime contractor for PrISMS requirements. The contract has been extended through December 31, 2003.

The PrISMS contractor is responsible for providing overall management support, systems engineering, system operations, maintenance, procurement, and problem reporting and resolution. The contractor provides various IT services for MSFC, the Agency and IFMP. The functions include customer requirements documentation/planning, design, development, implementation, operation, and maintenance of all systems and services that are provided. The contract has provisions for procurement of necessary computer equipment, telecommunications equipment, and software required to support MSFC and the Agency. Accepting, tracking, and resolving problems and requests for assistance are an integral part of the contractor's responsibilities. All software in place is Government-owned and are not proprietary to the PrISMS contractor.

1.4 Consolidated Space Operations Contract (CSOC)

The Consolidated Space Operations Contract (CSOC) NAS9-98100 is a JSC contract and provides Space Operations Mission and Data Services to GSFC, JPL, JSC, KSC, and MSFC. Lockheed Martin Space Operations holds this contract. The base period of the contract ends December 31, 2003. CSOC provides Wide Area Network (WAN) services to Agency customers in support of the NASA Integrated Services Network (NISN).

CSOC provides all functions in support of WAN services, which include voice, video, and data services. These functions include customer requirements documentation/planning, design, development, implementation, and operation of all systems and services which supply voice and video conferencing, mission voice and video, routed data, and custom/dedicated data to NASA Enterprises, Centers, Programs, and partners.

Data reduction services are also provided under the CSOC Contract. These services provide for near real-time support to MSFC's Space Shuttle Projects Office,

during simulations, prelaunch testing, launch, on-orbit, and landing sequences. However, this work is now included in the MSFC "HOSC" work package of the SMCDS contract.

1.5 PrISMS Subcontracts

The PrISMS contract currently has first-tier subcontracts to satisfy the requirements in the following functional areas:

a. Maintenance and sustaining engineering support for the Integrated Engineering Systems (IES).
b. Application development and maintenance support for the administrative and business software (DIS).
c. Administrative telephone services (Arcata).
d. Photo Lab, TV Studio, and audio visual services (Arcata).
e. Documentation Repository (LESCO).
f. Reproduction and graphics (Cortez III).

1.6 CSOC Subcontracts

The CSOC contract currently has first-tier sucbonctracts to satisfy requirements in the following functional areas:

a. Video Teleconferencing Services (ViTS) (Arcata).
b. Fax broadcast Services (Arcata).
c. Voice Teleconferencing Services (VoTS) (Arcata).
d. WAN Engineering and Operations (Digitalnet).
e. WAN Engineering and Operations (CSC).
f. Hardware, circuit procurement, and carrier interface (CSC).

2. MSFC BACKGROUND AND ORGANIZATION

2.1 Background

The MSFC, a field installation of the National Aeronautics and Space Administration (NASA), was established in 1960 and named in honor of General George C. Marshall, the Army Chief of Staff during World War II, Secretary of State, and Nobel Prize winner for his renowned "Marshall Plan". As MSFC's scope and mission have evolved over the years, so has the Centers' reliance on information technology as a resource. Information Technology has proven to be a powerful resource for the management of MSFC Projects. How MSFC manages its Information Technology has likewise evolved. In 2002, the latest step in that evolutionary process saw the Office of the Chief Information Officer and the Information Systems Department consolidated into a single office having total responsibility (policy, standards, architecture, and operations) for the delivery of Information Technology services for MSFC.

Today, the Office of the Chief Information Officer provides leadership and management of all Information Technologies at MSFC. The CIO serves as the principle advisor to the Center Director on all IT matters and is responsible for the establishment of IT policies, standards and architectures for MSFC. The CIO is responsible for implementing and operating the Information Technologies at MSFC as well as Information Technologies that support the entire Agency.

MSFC occupies about 1,800 acres located within the U.S. Army's Redstone Arsenal reservation in Huntsville, AL. MSFC-managed satellite locations include: a) Michoud Assembly Facility (MAF) in New Orleans, LA, which manufactures and assembles the Shuttle's External Tanks (ET's); b) National Space Science and Technology Center Executive Office located near the University of Alabama in Huntsville, AL; c) Integrated Financial Management Program (IFMP) Integration Project Office located at Integraph Building 8, Madison, AL; and d) resident offices at other NASA sites and contractor locations.

2.2 MSFC Values/Mission

The Marshall Space Flight Center team is committed to the following core values. These values serve as the principles that guide our decisions and behaviors.

People:

- We recognize that the people who work here are "most important" — and are our greatest strength.
- We create a safe and healthy environment.
- We encourage balance between personal and professional life.
- We enable personal and professional growth.
- We commit ourselves to the highest standards of integrity and ethical behavior.
- We reward and celebrate our accomplishments.

- We recognize individual and cultural differences and treat each other with dignity and respect.

Customers:
- We are accountable to our customers and are committed to their satisfaction.
- Our customers can depend on us to deliver quality products and services.

Excellence:
- We pursue excellence in our people and in everything we do.
- We promote continual learning and improvement.
- We hold one another accountable for doing what we commit to do.

Teamwork:
- We are a unified and interdependent team.
- We cooperate, communicate openly and share ideas with each other for the common good.
- We seek and enable partnerships with other NASA Centers, other agencies, academia, industry and our local and global communities.

Innovation:
- We promote innovation and creativity.
- We seek different ideas and perspectives.
- We are committed to making a significant difference.
- We are willing to accept well-assessed, selected risks in the pursuit of our goals — but never at the expense of safety.

The Marshall Center's mission is to enable, through our values-based culture, the unbounded access to and use of space to benefit humanity. The following summarizes the Marshall mission:

- We advance the state of, and implement technology in space transportation systems, space propulsion, microgravity sciences, and space systems.
- We promote scientific discovery and engineering excellence.
- We conceptualize, develop, integrate, and operate space flight and ground systems.
- We continually improve the way Marshall and NASA do business.
- We promote the benefits of the space program.
- We inspire the next generation of explorers.

The Marshall Statement clarifies the role of the Center in the context of the Agency-wide vision and mission statement; to improve life here, to extend life to there, to find life beyond, as well as the Agency Mission; to understand and protect our home planet, to explore the universe and search for life, to inspire the next generation of explorers … as only NASA can.

2.3 MSFC Organization

Seven offices for corporate/core activities and six directorates that embody the developmental projects and institutional capabilities of the Center carry out MSFC's missions (see MSFC Organizational Chart provided with Industry Briefing charts). Offices include: Safety and Mission Assurance, Procurement, Chief Counsel, Chief Financial Officer, Equal Opportunity, Systems Management, and Space Shuttle Projects. The directorates are Space Transportation, Science, Flight Projects, Engineering, Center Operations, and Customer and Employee Relations.

2.4 Office of the Chief information Officer (CIO)

The MSFC CIO reports to the Center Operations Directorate. The CIO organization (see Figure 2.4) is composed of an executive office and five group offices. The five group offices are: Customer Relationship; MSFC IT Services; Agencywide Services; IT Systems Engineering; and Investment, Management and Policy.

2.4.1 CIO Manager's Office

The Manager's Office provides overall management of the CIO organization. This executive office oversees all organizational requirements and responsibilities, contract management and planning, and coordinate and process all personnel, policy, travel, and other administrative functions. The office coordinates with MSFC and NASA executive management regarding CIO responsibility and direction.

2.4.2 Customer Relationship Group

Establishment of formal customer relationship management between the Office of the Chief Information Officer (CIO) and MSFC programs and directorates is underway to accomplish the following: improve IT communications, assure IT implementations that are in compliance with standards and best practices, and assure proper alignment of IT projects with Center and Agency IT strategies.

The primary goal of the NASA IT Manager will be to serve within a particular program or directorate and provide focused leadership both for internal IT activities and for coordination with CIO strategies and goals. The IT Manager must be a valued member of the directorate staff, reporting directly to a Group Lead as the person responsible for integrating IT activities for the directorate as a whole. He must have visibility into all internal IT projects, understanding their costs, schedules, and desired end results, and he must participate fully in planning and recommending new directorate IT projects to the Group Lead and the Director. All other IT support personnel within the directorate, whether civil service or contractor, will coordinate their IT activities with and through the IT Manager. The IT Manager must have good interpersonal skills and facilitation skills, and must work to gain the business knowledge that will make him an effective customer advocate for accomplishment of business line goals.

2.4.3 MSFC IT Services Group

The MSFC IT Services Group is responsible for providing general purpose IT services such as computer operations; hardware and software maintenance; desktop computing; photographic, graphics, and copier/reproduction services; and other distributed systems at MSFC. The Desktop/Data Systems Team is responsible for midrange computing, hardware and software maintenance, the Help Desk, and the MSFC Delivery Order in the ODIN contract. The MSFC Applications Team is responsible for all MSFC applications and web development and sustaining services. The Multimedia Team is responsible for the photographic, graphics, TV Studio, and copier/central reproduction services. In addition, the lead is responsible for the Digital Television (DTV) Implementation Project.

2.4.4 Agencywide Services Group

The management and operation of certain IT services for the Agency has been delegated to MSFC and are provided by the Agencywide Services Group. These services are currently provided via the following projects: the NASA Integrated Services Network (NISN) for wide area network services including mission and mission support communications, routed data, voice teleconferencing, video teleconferencing, switched voice, and Russia services; the NASA ADP Consolidation Center (NACC) for mainframe and server data center services; Agencywide applications including Sustaining Engineering Support for Agency Administrative Services (SESAAS); and Network Security including intrusion detection and response.

2.4.5 IT Systems Engineering Group

The IT Systems Engineering Group is responsible for systems design and strategic planning. Overall IT architecture design is also a product of this group. The group is composed of three teams: Infrastructure Team, IT Security Team, and Knowledge Management Team. The Infrastructure Team is responsible for voice, data, and video engineering services. This team has oversight of the MSFC campus network, campus telephone services, and audio/video/radio services. The IT Security Team is responsible for security services for the Center. This team does risk assessments, intrusion detection, incident response, and security engineering. This team also has oversight of the firewalls, virtual private networks, and other custom engineering products related to security. The Knowledge Management team is responsible for the Scientific and Technical Information (STI) program, Document Repository, Forms Management, and Records Management for the Center.

2.4.6 Investment, Management and Policy Group

The Investment, Management and Policy Group is responsible for developing, implementing, and management of an effective IT investment management process which ensures that IT investments are aligned with the business initiatives of the Center. Additional duties include the development and implementation of a formal IT

Governance process and structure for MSFC and the development of an IT Master Plan for the Center.

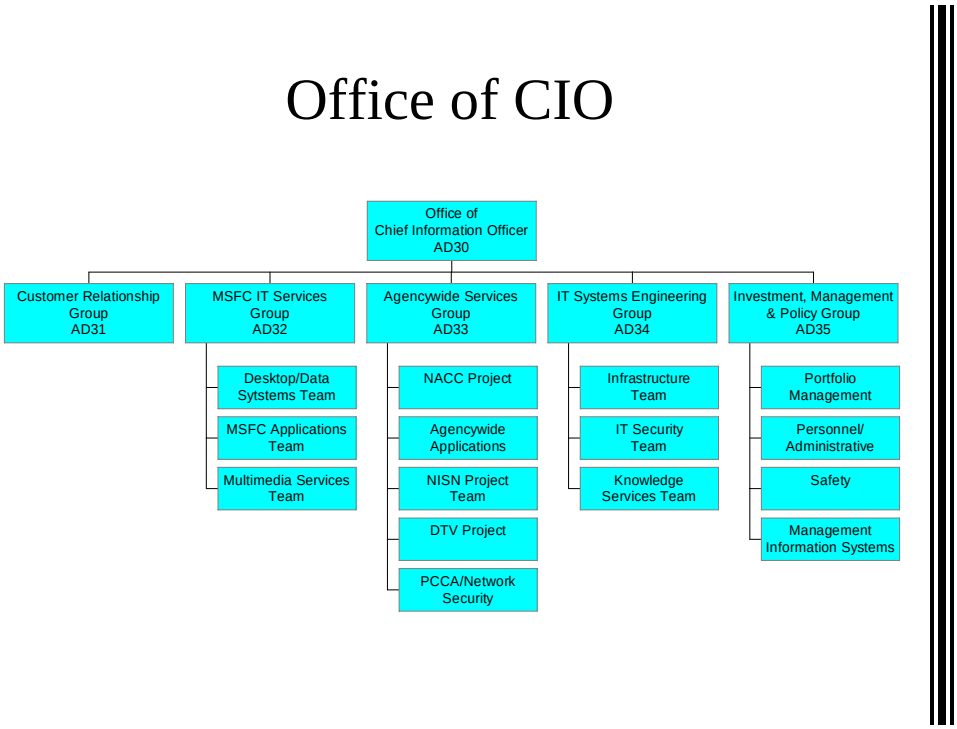


Figure 2.4 Office of Chief Information Officer Organization

2.5 IFMP Integration Project Office

The formulation of NASA's Integrated Financial Management Program (IFMP) resulted in an IFM Program Office managed at NASA Headquarters with multiple functional Module Projects assigned to designated NASA Centers. In addition to projects established for the purpose of implementing specific modules, the Integration Project has been established at the Marshall Space Flight Center to manage all functional, application, and technical integration within the scope of the Program. The Integration Project is viewed as an extension of the IFM Program Office at NASA Headquarters, and as such, will exist for the life of the Program and is responsible for:

a. Establishing and maintaining integrated business, application, and technical architecture
b. Facilitating the incorporation of each new module into an integrated system solution
c. Providing hardware to satisfy Module Project requirements
d. Providing operations and sustaining support following module rollout

Aligning the IFM technical architecture with the Agency IT strategy.

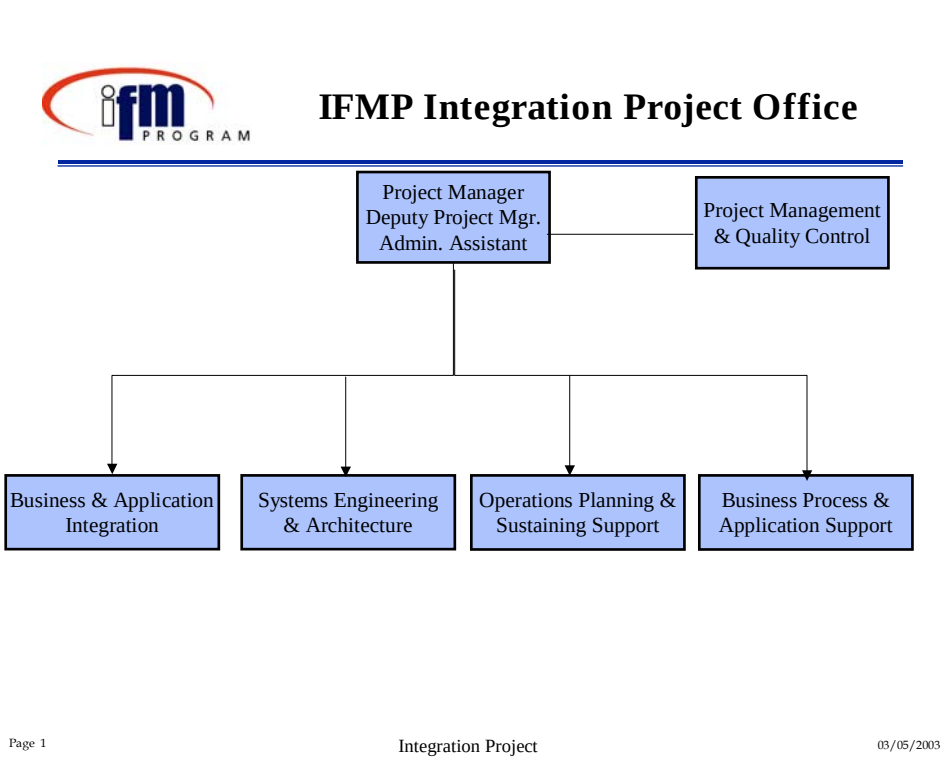


Figure 2.5 IFMP Integration Project Office

2.6 MSFC Tour of Duty

Normal MSFC duty hours are provided for the offerors' information. Normal MSFC duty hours are defined as a five (5) day week, Monday through Friday (excluding holidays), 8 hours per day between 7 a.m. and 5:30 p.m. Proposers will be expected to establish working hours compatible with the organizations to be supported.

3. PRISMS SERVICES

3.1 Program Management

The contractor provides an integrated Program Management function with oversight and responsibility of both Agency and MSFC services. The contractor performs management activities necessary to plan, execute, control, and report project performance, schedules, and resources. The contractor also provides an integrated management information system (MICS), as well as planning and control systems, to provide for planning, tracking, accumulating, and reporting of contract data. The Program Management consists of Project Management; Financial Management; Contract Administration; Procurement Management; Asset Management; Security; Safety; Facilities Management; Quality Assurance; and Contract Documentation.

The IT environment is a constantly changing environment with innovations introduced every day. We must constantly investigate and evaluate new information technologies and initiatives that offer the possibility of improving service delivery, reducing costs, and changing how we do business today and in the future. As an organization, we encourage initiatives and the development of pilot projects that assess the applicability and business value of next-generation emerging technologies. Innovative technologies that offer promise for improving the manner in which information services are delivered today must then be integrated into the existing NASA architecture with minimal disruption to our customer base. We must constantly be at the forefront of technology, exploring those technological opportunities that offer the most promise.

3.1.1 Project Management

Project Management encompasses all management activities necessary to plan, execute, control, and report project performance, schedules, and resources (including human resources). The control function integrates costs, schedules, and performance, and relates the progress of the project, along with any variance from the proposed plan. This element also includes higher-level program management functions not classified elsewhere in the succeeding elements, and higher-level support for the Management Information and Control System (MICS).

3.1.2 Financial Management

Financial Management includes integrated management information system, as well as planning and control systems to provide for the planning, tracking, accumulating, and reporting of contract (negotiated) cost versus actual costs to maximize resources utilization. This element also involves other financial support required to meet the budgeting, cost reporting, billing, and disclosure requirements of the contract.

3.1.3 Contract Administration

Contract Administration includes all contract administration functions and activities required in performance of the contract.

3.1.4 Procurement

The contractor provides, implements, and maintains a procurement information system as part of the PrISMS MICS. The system tracks the status of individual procurements from purchase request through final purchase order, delivery, and acceptance and provides appropriate information to the IFM system.

This function includes the procurement and tracking of all required supplies/materials, equipment, software, and services, necessary to accomplish the contract mission not otherwise furnished by the Government. Examples include: replacement parts/equipment, spare parts for hardware maintenance, vendor maintenance agreements, emergency parts, temporary labor services, IT related supplies, software subscription services, hardware engineering change/updates, and special general purpose software packages.

As part of the services referenced above, the contractor provides for acquisitions both as part of its responsibilities in meeting the requirements of the statement of work and also in support of customers providing funding for additional IT purchases which are outside of its normal responsibilities. Both types are considered to be within the scope of the contract effort.

The following breakout of Purchase Orders generated during the last two complete calendar years of PrISMS performance is provided below:

01/01/2001 to 12/31/2001

<$100K – 2,437 PO's valued at $15,480,033
>$100K - 223 PO's valued at $45,105,930

Of the 2,437 PO's less than $100K, 2,220 were generated in support of PrISMS performance and 217 PO's were generated in support of NASA outside of the contractor's PrISMS responsibilities.

01/01/2002 to 12/31/2002

<$100K – 2,796 PO's valued at $16,311,284
>$100K- 218 PO's valued at $39,943,682

Of the 2,796 PO's less than $100K, 2,662 were generated in support of PrISMS performance and 134 PO's were generated in support of NASA outside of the contractor's PrISMS responsibilities.

In FY02, the contractor issued 54 PO's for Software Maintenance for a total of $4,206,980 and 28 PO's for Hardware Maintenance for a total of $1,892,828.

3.1.5 Asset Management

The contractor performs property management and administration of all property acquired by, or in possession of, the contractor and subcontractors (including Government Furnished Property) in performance of the PrISMS mission.

3.1.6 Security

Security includes the preparation and implementation of a comprehensive security plan consistent with applicable Department of Defense (DoD), NASA, and MSFC policies and procedures. Also included in this element are IT resources protection, personnel security, facility access procedures, policies and protection, and the safeguarding of Privacy Act Information and property data and classified information.

Telecommunication Security includes providing customer and program requirements support for classified Communications Security (COMSEC) and unclassified security.

3.1.6.1 Export Control

NISN and Russian Services support many NASA requirements in international locations. As a result, shipment of telecommunications equipment occurs to non-US locations. The contractor, currently both CSOC and PrISMS, is responsible for shipment of the necessary equipment to install, maintain, and manage IT services at these locations, in accordance to MSFC and NASA Export Control and Shipping Procedures.

The contractor is also required to attend the Monthly Export Control Representative meeting and yearly certification training sessions provided by the MSFC Export Control Program. Additional training of personnel is encouraged. The contractor is responsible for ensuring that its employees are aware of the procedures for all areas of export control, including, but not limited to: placing information on the world wide web; placing information in the Public Domain (i.e. International conference, trade magazines, etc); verbal discussions or presentations with foreign nationals; hand carrying or shipments of items outside the U.S. or to foreign nationals within the U.S.; mailing, faxing, emailing items outside the U.S. or to foreign nationals within the U.S.; and an understanding of the definition of a foreign person and the proper procedure to obtain clearance for visits to NASA facilities.

The Russian Services has a special procedure for Export Control shipments as mandated by NASA HQs and the US Embassy, Moscow. This procedure is found in the UNITeS library.

In FY02, there were approximately 15 shipments to Russia and 9 shipments to other international locations. This is the number of direct shipments by the contractor.

There were also an unspecified number of drop shipments by the contractor's vendors to international locations. The contractor maintains responsibility that the proper Export Control procedures were followed and also retains a copy of the necessary documentation of the shipment by the vendor.

3.1.7 Disaster Preparedness

Disaster Preparedness includes development and maintenance of a disaster preparedness and recovery plan and support to all planning actual event activities.

3.1.8 Safety

Safety involves the preparation and implementation of health and safety policies and procedures in compliance with Occupational Safety and Health Administration (OSHA), NASA, and MSFC standards and requirements. This element includes safety inspections and surveys, safety and health meetings, and maintenance records and reports of occupational injuries and illnesses.

3.1.9 Facilities Management

Facilities Management involves the establishment and maintenance of a uniform system of managing the use of assigned facilities.

3.1.10 Quality Assurance (Quality Management)

Quality Assurance includes a QA Program that will ensure that products and services conform to specific requirements. A focus on Continuous Improvement will be evident throughout the program.

3.1.11 Documentation

Documentation pertains to activities required to ensure proper documentation control and availability along with preparing and delivering contractually required data to the Government. Included are activities to identify, control, and monitor the preparation, distribution, and maintenance of Data Requirements Documents under the contract.

3.1.12 User Training

The contractor provided user training for the following:

a. Conference Room Electronic Services (over 80 sessions)
b. RIM Blackberry
c. Pocket PC with Tmobile service
d. Telephone instrument features
e. Various Remedy Training Sessions

3.1.13 Full Cost Accounting

The Agency will implement full cost accounting in FY04. The contractor is providing service rate projections and utilization data that support this operation. Services provided by the PrISMS contract are divided into three cost pools and one project: MSFC IT Service Pool, Center G&A Pool, Corporate G&A Pool, and NISN Project. These are comprised as follows:

a. MSFC IT Services
   Acquisition support; applications and web services; communications (telephone, cell phones, and pagers); computer maintenance/operations (midrange and ECS); and multimedia services and event support (less imaging).
b. Center G&A Services
   Graphics/publications; Imaging (photo); documentation services (Repository and RSIC); IT Security; and Reproduction Services (includes multifunctional).
c. Corporate G&A Services
   NACC; SESAAS; IFMP; ADE; NCCS; and DTV.
d. NISN Project

The Office of the Chief Financial Officer is currently defining the full cost accounting procedure.

3.2 MSFC Information Services

3.2.1 MSFC Applications and Web Services

3.2.1.1 MSFC Applications Services

Application software services support is provided to meet Center and specific customer requirements and includes definition and specification, requirements analysis and feasibility studies, design and development, testing and integration, installation and deployment, configuration management, user assistance and training, documentation, ongoing maintenance (repairs and upgrades), other operational support, and replacement or retirement. Production support, which is part of the operational support, includes data preparation, data entry, initiation and monitoring of production programs, and generation, review and distribution of reports.

Non-ODIN Commercial-Off-The-Shelf (COTS) application support includes evaluation, procurement, installation, integration, testing, training, user assistance, administration and other operational support.

Application services provided for FY01 and FY02 are categorized by customer subject area, service type, and productive hours in the following paragraphs. The following tables are not intended to provide an exhaustive list of all applications or services for a particular subject area, but rather to provide insight into the primary tasks

and productive hours utilized in FY01 and FY02. Primary tasks will vary from year-to-year. Additional information and a more complete list of computer applications and services are provided in the *Application and Web Services Manual*.

3.2.1.1.1 MSFC Product Line Organizations

3.2.1.1.1.1 Space Transportation Directorate (TD)

Customer Subject Area	FY01 Productive Hours	FY02 Productive Hours
NASTRAN Support	381	714
Advanced Concepts	3,471	4,519
TD40 Customer Support	0	1247
Systems Admin Support	1,049	1,870
Dynamic Data Analyzer (overtime required)	2,263	4,489
Test Area Support	7,480	7,480

3.2.1.1.1.2 Flight Projects Directorate (FD)

Customer Subject Area	FY01 Productive Hours	FY02 Productive Hours
Flight Projects Information System, NASTRAN Support	14,670	13,326
Virtual Research Center (VRC), Advanced Systems Support	2,369	1,870

3.2.1.1.1.3 Science Directorate (SD)

Customer Subject Area	FY01 Productive Hours	FY02 Productive Hours
National Space Science and Technology Center (NSSTC) Support	8,024	9,350
Microgravity Research Program Level Summaries	3,412	1,000
Microgravity, Electrostatic Levitation Project, NASTRAN, Resource Analysts	12,037	10,788
Space Science Applications	6,423	7,466
Lightning Imaging Sensor (LIS)/Optical Transient detector (OTD) Calibration, Doppler Lidar	2,733	1,870
X-Ray Calibration Facility	815	1,122

3.2.1.1.1.4 Space Shuttle Projects Office (MP)

Customer Subject Area	FY01 Productive Hours	FY02 Productive Hours
Project Office Support	1,854	1,870

Solid Rocket Booster Project Support*	364	0

*non-recurring activity

3.2.1.1.2 MSFC Support Organizations

3.2.1.1.2.1 Engineering Directorate (ED)

Customer Subject Area	FY01 Productive Hours	FY02 Productive Hours
Engineering Technology Development Office Database	1,911	1,870
Antenna Range Data Collection	1,102	1,325
Structural Load Test Measurement Acquisition System (SLTMAS) H/W & Test Support, SLTMAS Maintenance & Development, Computer-Aided Design (CAD) System Manager, Thermal Analysis, NASA Structural Analysis (NASTRAN)	15,872	16,500
Propulsive Small Expendable Deployable Satellite (ProSEDS) & Advance Ionosphere Research Small Expendable Deployable Satellite (AirSEDS), Materials and Processes Technical Information System (MAPTIS), Robotic Weld Support, External Tank (ET) Variable Polarity Plasma Arc (VPPA) Model Support, Integrated Manufacturing Project Planning and Control System (IMPACS)	14,527	17,204
Solid Rocket Booster (SRB) Electromagnetic Compatibility (EMC), International Space Station (ISS) EMC, Shuttle Natural Environments, ISS Environment, X-vehicles, Mars – Global Reference Atmospheric Model (GRAM), Environment Analysis, EMC, Environment Definitions, Information and Resources support System (IRSS), Information Systems Coordination, NASA Standards, Configuration Management	36,267	39,984
Integrated Engineering System (IES) (Subcontract in FY01 and FY02)*	36,153 S/W Licenses $250,000	35,717 S/W Licenses $171,000

*IES also supports TD, FD, SD, and AD. However, ED serves as a focal point for ES requirements and all indicators for IES are shown here.

3.2.1.1.2.2 Center Operations Directorate (AD)

Customer Subject Area	FY01 Productive Hours	FY02 Productive Hours
Center Operations Services Management Information System (COSMIS), Management Information and Control System (MICS)	4,350	3,740
Environmental Support, FingerPrint	65	109
Facilities Support, Computerized Maintenance Management System (CMMS), Marshall Calibration Management System (MCMS), Propellants Logistics Operations Tracking System (PLOTS)	5,438	4,675
Information Services Support, Graphics Work Order System (GWOS), Reproduction Services Work Order System (RSWOS)	1,493	3,039
Computing and Communications Asset Information Management System (CCAIMS), Service Request System (SRS), Problem Management and Dispatch System (PMDS)	9,350	12,342
Logistics Support, *NASA Equipment Management System (NEMS), *NASA Property Disposal System (NPDMS), *NASA Supply Management System (NSMS)	6800	7,433
Protective Services Support, MSFC Employee Data Information System (MEDIS)	3,701	3,927

*Site Unique

3.2.1.1.2.3 Customer and Employee Relations Directorate (CD)

Customer Subject Area	FY01 Productive Hours	FY02 Productive Hours
MSFC Personnel Information System (MPIS), NASA Personnel/Payroll System (NPPS) (MSFC Site Unique), Core Applications Support	5,885	6,545
Electronic Meeting System (EMS), Web Applications, Employee Development Technology Center (EDTeC)	11,416	11,781
Technology Transfer	882	0

3.2.1.1.2.4 Office of the Director and Staff Offices

Customer Subject Area	FY01 Productive Hours	FY02 Productive Hours
Office Of the Director (DA)	1,863	1870

Centerwide Action Item Tracking System (CAITS)	1,900	1870
CFO (RS)– MSFC Accounting and Resource Tracking System (MARTS), Labor Cost System (Labor), MSFC Web Time and Attendance Distribution System 1 (Webtads 1), Automated Procurement System (APRS),and Core Applications	27,601	20,414
CFO (RS)- Centerwide Resources Planning system (CRPS)	7,116	6,919
Procurement Office (PS) – Procurement Management Information System (PROMIS), Procurement Data Warehouse System (PDWS), Core Applications	9,540	10,098
Systems Management Office (VS)	251	0

Table 3.2.1.1 MSFC APPLICATON SERVICES TABLE

Application/ Service Name	Description	Customer Org.	Supporting Software	Platform(s)	File Size/#of Users/LOC	Category/ Time Per.
Directorate Support	Daily support for Director's Office, AD01, ED01 on the 9th floor of Bldg. 4200	DE01	Various	Various	N/A	1/2
CAITS	Centerwide Action Item Tracking System	DE01	CAITS Web: Microsoft Windows 2000, Microsoft Internet Information Server (IIS), VBScript CAITS MGW: Microsoft Windows 98, C++, Oracle	IBM RSIC Database Server, Windows NT Server, PC/Windows 2000 95/98/NT or Macintosh Workstation	723 Users	1/2
AMS (MSFC Site Unique)	Acquisition Management System	PS10	NATURAL ADABAS	MSMIS	82.45 MB 10 Users 183,782 LOC	2/2
CPIS	Contract Performance Information System	PS10	Windows 95, Microsoft Visual FoxPro 3.0	Windows 95 Workstation, NT Server	Approximately 12 MB 1 User	3/2
PDWS	Procurement Data Warehouse Systems	PS10	PERL, JAVA, MySQL	UNIX Server db1.nais.nasa.gov	Approximately 450 MB 10,000 LOC	1/2
PROMIS	Procurement Management Information System	PS10	NATURAL, ADABAS	MSMIS	200.6 MB	3/2
PCURT	Purhase Card Users Refresher Training	PS10	PERL, HTML, JavaScript, MySQL	UNIX Server ec.msfc.nasa.gov	Approximately 1MB	3/2
SBD	Small Business Directory	PS10	PERL, HTML, JavaScript, MySQL	UNIX Server ec.msfc.nasa.gov	Approximately 2 MB	3/2
MARTS	MSFC Accounting and Resource Tracking System	RS01	NATURAL, COBOL, ADABAS	MSMIS	297.5 MB 548 Users	2/2
LABOR	Labor Cost System	RS10	NATURAL, COBOL ADABAS	MSMIS	425 MB 6 Unique Users	3/2

Table 3.2.1.1 MSFC APPLICATON SERVICES TABLE

Application/ Service Name	Description	Customer Org.	Supporting Software	Platform(s)	File Size/#of Users/LOC	Category/ Time Per.
NPPS (MSFC Site Unique)	NASA Personnel/Payroll System	RS10 CD01	NATURAL ADABAS	MSMIS	539.7 MB 25 Users 90,795 LOC	2/2
CATS	Collection/Accounting Tracking System	RS20	Microsoft Access	Intel platform, Compaq 5000, NT4.0, PC (Windows)	916 KB on Workstation's hard drive linked to 338 KB on file server	3/2
CAMIS	Contract Administrative Management Information System	RS20	Microsoft Access	Intel platform, Compaq 5000, NT4.0, PC (Windows)	29 MB on Workstation's hard drive linked to 108 MB on file server	3/2
RaTS	Reimbursable Agreement Numbers (RANS) Tracking System	RS20	Microsoft Access	PC (Windows)	528 KB on Workstation's hard drive	3/2
APRS	Automated Procurement Request System	RS30	NATURAL ADABAS	MSMIS	42 MB 1,105 Users	3/2
ITSPCS	Information Technology Small Purchases Control System	RS50	Oracle Forms, Oracle Reports, SQL*Net., Oracle	DEC Alpha (UNIX), PC (Windows)	50 MB	2/2
MRPT	Marshall Resources Planning Tool	RS50	FileMaker Pro, Brio, and Oracle	Windows NT	210 MB 740 Users	3/2
CFC	Combined Federal Campaign	RS30	VBScript, JavaScript, Oracle	Windows NT4/Compaq	6,148 Users 9,000 LOC	3/2
SSPO Support	General SSPO IT Support	MP01	Various	Various	N/A	2/2
FingerPrint	FingerPrint is a Microsoft Windows based COTS product that provides hazardous waste and hazardous materials tracking and reporting.	AD10	Visual Basic Oracle	NT Server	7 Users	3/2
NETS	NASA Environmental Tracking System	AD10	PowerBuilder Sybase	RISC 6000 Server	7 Users	3/2

Table 3.2.1.1 MSFC APPLICATON SERVICES TABLE

Application/ Service Name	Description	Customer Org.	Supporting Software	Platform(s)	File Size/#of Users/LOC	Category/ Time Per.
CMMS	Computerized Maintenance Management System	AD20	Maximo, Oracle	NT Server	94 User	1/2
CMMS FCSS	CMMS Facilites Customer Satisfaction Survey (FCSS)	AD20	Access, Outlook, HTML, Perl, Oracle	NT Server for e-mail, UNIX for Web	Centerwide users	2/2
CMMS FWOR	CMS Facilities Work Order Request	AD20	Access, Outlook, HTML, Perl, Oracle	NT Servier for e-mail, UNIX for Web	Centerwide users	1/2
CMMS FWOS	CMMS Facilities Work Order Status	AD20	HTML, Perl, Oracle	UNIX	Centerwide users	3/2
MCMS	Marshall Calibration Management System	AD20	Maximo, Oracle	NT Server	10 Users	2/2
PLOTS	Propellants Logistics Operations Tracking System	AD20	Maximo, Oracle	NT Server	18 Users	3/2
ARSS	Actvity Request Scheduling System	AD30	Remedy Action Request System (ARS), Remeby ARWeb, Remedy ARUser, Microsoft Windows 2000, Oracle	Compaq servers, SUN, PC and Macintosh workstations	640 Users	3/2
Applmail – Emailing Application	The Applmial is a Windows service designed to be used by any Component Object Model (COM)	AD30	Microsoft Windows 2000 Server, Microsoft.NET., Framework SDK, MDAC 2.7, Oracle 9.2	Dell server	N/A	2/2
COSMIS	Center Operations Services Management Information System	AD30	Oracle Forms, Oracle Reports, SQL*Net., Oracle	DEC Alpha (UNIX), PC (Windows)	400 MB	3/2

Table 3.2.1.1 MSFC APPLICATON SERVICES TABLE

Application/ Service Name	Description	Customer Org.	Supporting Software	Platform(s)	File Size/#of Users/LOC	Category/ Time Per.
CWPD	Centerwide Phone Directory	AD30	Netscape 4.7 (or earlier) on PC and Mac, Internet Explorer 5.5 on PC and Internet Explorer 5.0 on Mac, X500	PC (Windows), Macintosh Workstation, and UNIX Workstations	Potentially every desktop user at MSFC can use the phonebook. Studies indicate about 30% actually do. 400 LOC	1/2
CACS	Computer Access Control System	AD30	SQL*Forms Oracle	MSMIS	19.6 MB 70 Users 73,338 LOC	2/2
CCAIMS	Computing and Communications Asset Information Management Systems (CCAIMS)	AD30	UNIX, Pro*C, PL/SQL, “C”, Oracle	DEC Alpha (UNIX), SUN Workstations, and PCs	1.4 GB	2/2
CFB	Customer Feedback	AD30	Remedy Action Request System (ARS), Remedy ARS Web, Remedy AR User Microsoft Windows 2000, Oracle	Compaq 5000, SUN, PC, and Macintosh	Public Access	3/2
FYDB	Fiscal Year Data Base	AD30	SQL*Forms, Impromptu Oracle	MSMIS	2 Users 12,731 LOC	3/2
GWOS	Graphics Work Order System	AD30	SQL*Forms Oracle	MSMIS	1,065 KB 6 Users 22,208 LOC	3/2
ITEIS	Information Technology Equipment Information System	AD30	Microsoft Windows 2000, Microsoft Internet Information Server (IIS), VBScript and Web Browsers, ODBC, Oracle	IBM RISC Database Server, Windows NT Server, PC (Windows 95/98/NT) or Macintosh workstation	1 MB on IDS Web server’s hard drive and CCAIMS/MIW Oracle Tables	1/1

Table 3.2.1.1 MSFC APPLICATON SERVICES TABLE

Application/ Service Name	Description	Customer Org.	Supporting Software	Platform(s)	File Size/#of Users/LOC	Category/ Time Per.
ITS Event Form	Information Technology Security (ITS) Event Form	AD30	Remedy Action Request System (ARS), Remedy ARS Web, Remedy AR User, Microsoft Windows 2000, Oracle	Compaq 5000, SUN, PC, and Macintosh	82 Users	3/2
IRSR System	Installation/Relocation Service Request (IRSR) System	AD30	Remedy Action Request System (ARS), Remedy ARUser, Microsoft Wubdiws 2000, Oracle	Compaq servers, SUN, PC and Macintosh workstations	38 MB	3/2
IFM ISRS	Integrated Financial Management (IFM) Service Request System (ISRS)	AD30	Remedy Action Request System (ARS), Remedy ARS Web, Remedy AR User, Microsoft Windows 2000, Oracle	Compaq 5000, SUN, PC, and Macintosh	201 Users	1/2
MICS	Management Information and Control System	AD30	Oracle Forms, Oracle Reports, SQL*Net. Oracle	DEC Alpha (UNIX), PC (Windows)	5.2 GB	2/2
MIW	Management Information Warehouse	AD30	UNIX, Pro*C, PL/SQL, “C”, SQL, Oracle	DEC Alpha (UNIX), SUN workstations, and PC’s	1.4 GB	2/2
MAMS	MSFC Asset Management System	AD30/ AD40/ ED40/	UNIX, PL/SQL, SQL, ODBC, Microsoft New Technology (NT), Microsoft IIS/ASP, Tango 2000, Oracle	MSFCDB06P (UNIX), MSFCWEB01 (NT)	300 MB	2/2

Table 3.2.1.1 MSFC APPLICATON SERVICES TABLE

Application/ Service Name	Description	Customer Org.	Supporting Software	Platform(s)	File Size/#of Users/LOC	Category/ Time Per.
PKIC	Photographic Keyword in Context	AD30	SQL*Forms Oracle	MSMIS	16.5 MB 5 Users 11,862 LOC	3/2
PMDS	Problem Management and Dispatch System	AD30	Remedy Action Request (ARS), Remedy ARWeb, Remedy ARUser, Microsoft Windows 2000, TIVOLI Alarm Manager (ARS), TelAlert paging software, RemMail, Oracle	Compaq 5000, SUN, PC, and Macintosh	990 Users	1/1
RSWOS	Reproduction Services Work Order System	AD30	SQL*Forms Oracle	MSMIS	1,065 KB 4 Users 11,856 LOC	3/2
SRS	Service Request System	AD30	Remedy Action Request System (ARS), FSI Service Request Module for ARS, Microsoft New Technology (NT), Microsoft Internet Information Services (IIS)/Active Server Pages (ASP), Site Server Express (Web Posting Acceptor), Visual Basic, Visual C++, Oracle	Compaq servers, RISC servers, SUN, PC and Macintosh workstations	71 MB	2/2

Table 3.2.1.1 MSFC APPLICATON SERVICES TABLE

Application/ Service Name	Description	Customer Org.	Supporting Software	Platform(s)	File Size/#of Users/LOC	Category/ Time Per.
SSCR	Support Systems Change Request System	AD30	Remedy Action Request System (ARS), Remedy ARS Web, Remedy AR User, Microsoft Windows 2000, Oracle	Compaq 5000, SUN, PC, and Macintosh	68 Users	3/2
TSL	Television Services Library	AD30	Remedy Action Request System (ARS), Remedy AR User, Microsoft New Technology (NT), Oracle	Compaq servers, PC workstations	9.5 MG	3/2
User PIN Verification System	User Personal Identification Number Verification System	AD30	Microsoft Windows 2000 server, Microsoft Windows 2000, Microsoft Internet Information Services (IIS)/Active Server Pages (ASP), Visual Basic, MDAC 2.7, Oracle 9.2	Dell server, SUN, PC, and Machintosh workstations	N/A	1/1
MPT	MSFC Property Training	AD40	HTML, Perl, Flat files	UNIX	Centerwide Users	3/2
NEMS (MSFC Site Unique)	NASA Equipment Management System	AD40	NATURAL ADABAS, NASA DATA MOVER (NDM), NAURAL CONNECTION	MSMIS, PC, and Bar Code Readers	385 MB 150 Users 291,368 LOC	2/2
NPDMS (MSFC Site Unique)	NASA Property Disposal Management System (NPDMS) (Site Unique)	AD40	NATURAL, ADABAS	MSMIS	1020 MB 17 Users 189,959 LOC	3/2

Table 3.2.1.1 MSFC APPLICATON SERVICES TABLE

Application/ Service Name	Description	Customer Org.	Supporting Software	Platform(s)	File Size/#of Users/LOC	Category/ Time Per.
NSMS (MSFC Site Unique)	NASA Supply Management System	AD40	NATURAL ADABAS	MSMIS	502 MB 20 Users 603,935 LOC	2/2
PDTS	Procurement Discrepancy Tracking System	AD40	Remedy, Oracle	NT Server	.5MB 31 Users	2/2
VEO	Vehicle Equipment Operations	AD40	SQL*Forms, COBOL Oracle	MSMIS	11.7 MB 7 Users 60,932 LOC	3/2
L&K	Lock and Key	AD50	Access 2000, MS SQL Server (MSFCSEC030	NT File Server	25 MB 2 Users	3/2
MEDIS	MSFC Employee Data Information Service	AD50	Visual Interdev, Visual Basic, Flash, Fireworks, Dreamweaver, SQL Server	Windows Advanced Server 2000	55 Users	1/2
MIBS	MSFC Identification Badging System	AD50	Visual Basic, SQL Server, Access 2000	Desktop PC	12 Users	3/2
MVMS	MSFC Visitor Management System	AD50	Visual Basic, SQL Server, Access 2000	Desktop PC	12 Users	1/2
PSS	Personnel Security System	AD50	Visual Basic, xBase	Windows 98/ NT Server	3 Users	3/2
SPMS	Security Patrol Management System	AD50	DBPix, Acrobat 4.0, HP Scanner (Twain) MS Access, MS SQL Server (MSFCSEC03)	Windows 98/2000/ NT Server	100 MB 10 Users	1/2
CaER Travel	CaER Travel System	CD02	Oracle, COBOL, SQL*Plus, SQL*Forms, 1.5-megabyte database	MSMIS	8.5 MB 25 Users 3,610 LOC	3/2

Table 3.2.1.1 MSFC APPLICATON SERVICES TABLE

Application/ Service Name	Description	Customer Org.	Supporting Software	Platform(s)	File Size/#of Users/LOC	Category/ Time Per.
CLTS	Centerwide Logging and Tracking System	CD02	Oracle, COBOL, and SQL, 39-megabyte database	MSMIS	63.7 MB 50 Users	3/2
GLWF	Gains Losses Workforce System	CD02	Oracle, Impromptu	MSMIS, UNIX Server, and PC Workstation	6.8 MB 4 Users	3/2
MPIS	MSFC Personnel Information System	CD02	Oracle, Impromptu	File Server, PC Workstation	50 MB 89 Users	2/2
OATS	Outside Activity Tracking System	CD02	MS Access 97 Run Time	PC/Windows 98/2000/NT Fileserver	.5 MB 5 Users	3/2
RAS	Retirement Annuity System	CD10	Oracle, COBOL, SQL*Plus, SQL*Forms, FORTRAN	MSMIS	40.8 MB 3 Users 28,291 LOC	3/2
RMES	Retired MSFC Employee System	CD10	Oracle, COBOL, SQL*Plus, SQL*Forms	MSMIS	16.1 MB 3 Users 3,972 LOC	3/2
EMS	Electronic Meeting System	CD20	Group Systems for Windows Group Systems (Borlund)	Stand alone Windows NT server and Windows 95/98/2000/XP laptops	Metrics – FY01 EMS Session 99; EMS Session Attendees 1072; Average number laptops used per session 13	1/3 3/2
EODD	Employee and Organization Development Department (EODD) Web Support	CD20	HTML, JavaScript, and PERL	PC/Windows 98/2000 UNIX Server	200 MB	2/2
NET-CSSI	NASA Engineering Training – Comprehensive System Skills Initiative	CD20	HTML, JavaScript, and PERM	PC/Windows 98/2000; UNIX Server	N/A	3/2
NTDS (MSFC Site Unique)	NASA Training Development System	CD20	NATURAL, ADABAS	MSMIS	182.7 MB 5 Users 291,667 LOC	3/2

Table 3.2.1.1 MSFC APPLICATON SERVICES TABLE

Application/ Service Name	Description	Customer Org.	Supporting Software	Platform(s)	File Size/#of Users/LOC	Category/ Time Per.
PAS	Personnel Awards System	CD20	Oracle, COBOL, SQL*Plus, SQL*Forms	MSMIS	46.8 MB 10 Users 29,551 LOC	3/2
TATS	Technology Agreement Tracking System	CD30	FileMaker Pro	NT Server	4 Users	3/2
EPD Travel	Education Program Department Travel	CD60	MS Access 200, Oracle 73 ODBC Driver	PC/Windows 98/2000/NT Fileserver	10 MB 10 Users	3/2
LASER	Learning About Science and Engineering Research	CD60	MS Access 2000, Oracle 73 ODBC Driver	PC/Windows 98/2000/NT Fileserver	10 MB 5 Users	3/2
SETS	Scientific and Engineering Travel System	ED02	Oracle, COBOL, SQL*Plus, SQL*Forms, 1.5-megabyte database	MSMIS	8.5 MB	3/2
SCMOK	Satellite Contamination and Materials Outgassing Knowledgebase	ED03	Microsoft Visual InterDev 6.0, JavaTM Software Development Kit (SDK) Version 1.1, Microsoft Access	Windows NT Server, Internet Information Services (IIS)	514 MB	3/2
SCMDB	Spacecraft Charging Materials Data Base Web Site	ED03	Microsoft Visual InterDev 6.0, FrontPage 2000, Microsoft Access	Windows NT Server, Internet Information Services (IIS)	437 MB	3/2
SAMK	State-of-the-Art Materials Knowledgebase	ED03	Microsoft Visual InterDev 6.0, JavaTM Soft Software Development Kit (SDK) Version 1.1, Microsoft Access	Windows NT Server, Internet Information Services (IIS)	18.6 MB as of 3/8/2002 (under development)	3/2

Table 3.2.1.1 MSFC APPLICATON SERVICES TABLE

Application/ Service Name	Description	Customer Org.	Supporting Software	Platform(s)	File Size/#of Users/LOC	Category/ Time Per.
IES	Integrated Engineering System (IES) is the primary CAD/CAM/CAE tool at Marshall Space Flight Center	ED10	6 of the PC's sun Solarix/UNIX, the majority of the others use Windows NT 4.0 Windows 2000 with a few systems on Windows 98	201 SE1's – Compaq or Dell, 316 SE2's – Compaq or Dell, 27 Compaq PC's, 37 Dell PC's, 45 PC's, 120 other models of PC (Integraph, SGI, Core, ets.) 5 Integraph CLIX/UNIX systems	Approximately 500 users, 600 workstations/ servers, and an average of 200 Engineering Service Requests (ESR) per month	1/2
ARDCAS	Antenna Range Data Collection and Analysis System	ED18	Hewlett Packard Basic, Microsoft C and C++, Labview, HP-UX Operations System for HP Systems	Hewlett Packard 9836, Hewlett Packard 362, PC	800 MB	2/3 3/2
VRC Support	Virtual Research Center (VRC) Support	ED19	SunOS, PERL, JavaScript, Oracle	Sun Workstations	20,000 LOC	2/2
ABAQUS	ABAQUS is a structural analysis program based on the finite element method	ED20	FORTRAN	UNIX, PC	20 MB	3/2
ANSYS	Analysis System	ED20	FORTRAN	UNIX, PC	20 MB	3/2
CAD	Computer-Aided Design (CAD) System Management	ED20	IDEAS, PATRAN, BUMPER II	SGI, SUN, LINUX	N/A	N/A
GFSSP	Generalized Fluid System Simulation Program	ED20	FORTRAN	SGI and Compaq ALPHA	31,000 LOC	3/2
MSC NASTRAN	MacNeal Schwendler NASA Structural Analys	ED20	FORTRAN 77	ECS SGIs	N/A	3/2
MSC/PAT	MacNeal Schwendler (MSC)/PATRAN (MSC/PAT))	ED20	FORTRAN 77	ECS SGIs	N/A	3/2
MDA System	Multidisciplinary Design/Analysis (MDA) system	ED20	EDS MDA	Intel-based Dell PC, IDS	350 accounts opened at Marshall	2/2

Table 3.2.1.1 MSFC APPLICATON SERVICES TABLE

Application/ Service Name	Description	Customer Org.	Supporting Software	Platform(s)	File Size/#of Users/LOC	Category/ Time Per.
NASADIG	NASA Device Independent Graphics	ED20	FORTRAN	DEC Alpha and ECS SGI	100,000 LOC	3/2
System Administration Support	System administration is provided to the Thermodynamics and Heat Transfer Group.	ED25	Systems Software	Compaq Alpha GS60E, Compaq Alpha 4100, Digital DEC 7000, 18 SGI's	N/A	2/2
SINDA/85	Systems Improved Numerical Differencing Analyzer	ED25	FORTRAN	Compaq Alpha and ECS SGI	190,000 LOC	3/2
GASKI SINDA	Systems Improved Numerical Differencing Analyzer/GASKI	ED25	FORTRAN	Compaq Alpha and ECS SGI	110,000 LOC	3/2
TRASYS	Thermal Radiation Analysis System	ED25	FORTRAN, NASADIG	Compaq Alpha and ECS SGI	93,000 LOC	3/2
VTASC	Visual Thermo-Fluid Dynamics Analyzer for Systems and Components	ED25	C++	PC and SGI	18,000 LOC	3/2
SLTMAS	Structural Loads Test Measurement Acquisition System	ED27	Windows 2000 operating system with the Office 2000. Microsoft Visual Studio provides the Visual Basic, Visual C++, and ActiveX Control tools used to compile and build the applications. SAS graphics are supported by the 16-bit Olectra Library. Finite Element Displays are supported by the FEMAP application.	Signal Conditioners, PC's, LAN	32-bit File Allocation Table (FAT32) or NT File System (NTFS)	1/3 2/2

Table 3.2.1.1 MSFC APPLICATON SERVICES TABLE

Application/ Service Name	Description	Customer Org.	Supporting Software	Platform(s)	File Size/#of Users/LOC	Category/ Time Per.
IMS	Integrated Manufacturing System	ED37	COTS: Visual Manufacturing, Visual Quality, CribMaster, and SQL*Plus, Seagate Crystal Reports, Oracle	Dell PowerEdge 2550	1.6 GB	2/2
IMPACS	Integrated Manufacturing Project Planning and Control System	ED37	SQL*Forms, SQL*Plus, COBOL, Oracle	MSMIS	1.2 MB	2/2
MAPTIS	Materials and Processes Technical Information System	ED30	SQL*Forms, COBOL, Digital Command Language, Web DB, Oracle	DEC Alpha 8420 (UNIX), Compaq Proliant 6500	42 GB	2/2
MAPTIS II	Material and Processes Technical Information System II	ED30	Microsoft Windows 2000, Microsoft Internet Information Server (IIS), Centor X-Sight	Dell Precision 420 Server, MSFC 51876-8412481-0573, INTEL XEO N CPU 2.30 GHZ, ODIN tag 523066	2 GB	2/2
CYCLOPS	Coordination of Yearly Commitments, Liens, and Other Proposals and Studies	ED40	MS Visual Studio 6 Enterprise Edition, MS Internet Information Server (IIS) 5, MS Developers Network (MSDN) Universal Subscription; MS SQL Server 2000	IBM PC compatible with 500 MHz Pentium III and 512 MB RAM, or better.	30 Users 20,000 LOC	3/2

Table 3.2.1.1 MSFC APPLICATON SERVICES TABLE

Application/ Service Name	Description	Customer Org.	Supporting Software	Platform(s)	File Size/#of Users/LOC	Category/ Time Per.
IRSS	Information and Resource Support System	ED40	IRSS Client application, Microsoft Visual Studio 6, Microsoft Office 2000 Professional, Microsoft Internet Information Server (IIS) 5, Oracle 8 Client, Microsoft SQL Server 2000	IBM PC Compatible Pentium III Workstation and Server	133 MB	3/2
CEC	Collaborative Engineering Center	ED42	UNIX, NT, Unigraphics, Delmia, DVise, Jacks, X Windows, MathWorks, WorldToolKit, Satellite ToolKit, Division, Flat files	SGI ONYX, PC	Gigabytes	3/2
DMS	Document Management System	ED41	Tango 2000, JavaScript, HTML, SQL	NT Server	670 MB	2/2
LLIS	Lessons Learned/Best Practices/Application Notes – Standards Integration System	ED41	Tango 2000, JavaScript, HTML, SQL	NT Server	570 MB	3/2
SUNS	Standards Updated Notification System	ED41	Tango 2000, JavaScript, HTML, SQL	NT Server	760 MB	3/2
CPTAS	Change Processing, Tracking, and Accounting System	ED43	COBOL, SQL*Forms, Oracle	MSMIS	300 MB	2/2

Table 3.2.1.1 MSFC APPLICATON SERVICES TABLE

Application/ Service Name	Description	Customer Org.	Supporting Software	Platform(s)	File Size/#of Users/LOC	Category/ Time Per.
ICMS	Integrated Configuration Management System	ED43	Microfocus COBOL 4.0, Microsoft ODBC to Oracle driver v2.573.2927.0, Microsoft Visual Basic 5.0, Oracle 7.3 32-bit ODBC Driver v2.0.3.1.1, Oracle Relational Data Base Management System (RDBMS) v7.3 (or later) for NT, Oracle SQL*Net v2.3 (or later), Oracle	Desktop: PC (Windows 95 or later)	300 MB	2/2
ISO9001	ISO9001 MSFC Released Documentation List	ED43	COGNOS IMPROMPTU, Microsoft Excel, Oracle RDBMS v7.3 (or later) for NT, Oracle	Desktop: Any personal computer running a WWW browser. Server: NT	30 KB	2/2
RIDS (This system is still being used and will be transitioned to the Web-based RIDS.)	Review Item Discrepancy System	ED43	FileMaker Pro	Desktop: PC (Windows 95 or later)	30 MB	3/2
RIDS (WWW based)	Review Item Discrepancy System (RIDS) – WWW based	ED43	Tango 2000, JavaScript, Oracle RDBMS v7.3 (or later) for NT, Oracle	Desktop: Any personal computer running a WWW browser. Server: NT	30 MB	3/2

Table 3.2.1.1 MSFC APPLICATON SERVICES TABLE

Application/ Service Name	Description	Customer Org.	Supporting Software	Platform(s)	File Size/#of Users/LOC	Category/ Time Per.
AETA	Automated Electromagnetic Compatibility (EMC) Test Applications Software (AETA)	ED44	HP BASIC for Windows 8.3 and LabView 6i, Encoded	PC	1.44 MB – source code	2/2
EDAC	Environments Data Analysis Center	ED44	Microsoft Office Suite, Visual C++, Visual Fortran Redshift, Satellite Toolkit (STK), MathCad, IDL Axum, Adobe Acrobat, Adobe Photoshop Adobe Premiere, SpectraPro, Pinnacle Studio DV Meteorscan	PC (Windows 98 or later)	100 GB (for video meteor data)	1/3 3/2
GRAM	Global Reference Atmospheric Model	ED44	FORTRAN, Global Upper Air Climatic Atlas (GUACA) and Range Reference Atmosphere (RRA) data	PC, SGI or other UNIX	40 MB GUACA data; 2.3 MB RRA data 83 Users	1/3 3/2
ISEAS	Integrated Space Station Freedom (SSF) Electromagnetic Compatibility (EMC) Analysis System (ISEAS)	ED44	Microsoft Visual C Compiler Version 5.0, Oracle PRO*C/C++ Version 2.2.3, Oracle Developer/2000 Release 2.1, Oracle Data Base Version 7.3.2	IBM PC Compatible Pentium PC, MSFCDB05 File Server	1 KB	3/2
ISSDROP	International Space Station Decay Rate for Orbital Profile	ED44	FORTRAN-77	Any computer with a standard FORTRAN-77 compiler (currently ported to PC platform)	10 MB	3/2

Table 3.2.1.1 MSFC APPLICATON SERVICES TABLE

Application/ Service Name	Description	Customer Org.	Supporting Software	Platform(s)	File Size/#of Users/LOC	Category/ Time Per.
Leonids Meteor Flux Calculator System	Lenoids Meteor Flux Calculator System	ED44	Digital Visual Fortran V 6.1; MarshallSoft Computing See4F V 3.4; PGPlot V 5.	IBM PC Compatible	10 MB	1/3 3/2
Leonids Meteor Observation Program	Leonids Meteor Observation Program	ED44	PocketC Desk Top V 1.6; PocketC V 4.1	PALM Compatible Personal Digital Assistant (PDA) IBM PC Compatible	4 MB on PC 51 K on PDA	1/3 3/2
Mars-GRAM	Mars Global Reference Atmospheric Model	ED44	FORTRAN	PC, SGI, or other UNIX	55 MB MOLA, MGCM, and MTGCM data 37 Users	1/3 3/2
STORM	Meteor Shower Activity Forecasting	ED44	FORTRAN-77	Any computer with a standard FORTRAN-77 compiler (currently ported to PC, SGI platforms)	500 MB	3/2
MSAFE	MSFC Solar Activity Future Estimation	ED44	Microsoft FORTRAN Power Station Version 4, Absorft Pro Fortran, Web browsers, HTML	IBM PC compatible 486, Macintosh	7 MB	3/2

Table 3.2.1.1 MSFC APPLICATON SERVICES TABLE

Application/ Service Name	Description	Customer Org.	Supporting Software	Platform(s)	File Size/#of Users/LOC	Category/ Time Per.
MIDDS	Marshall Interactive Data Display System	ED44	HP-UX 10.2 Operating System, Mcidas-X 7.8, FORTRAN f77 compiler, Windows NT 4.0 Operating System, Exceeds 5.1.3 (X-server), HyperSnap-DX, PCGOAL, Unix shell scripts Tcl/tk, Expect, Mcidas-X-EADS archive	HP 9000/735, HP B2600 9000/785, Intel Pentium PC's	3GIG/100+ GIG	1/3 3/2
SSEI	Natural Environment Analytical Statistical Development for Shuttle Systems Engineering Integration	ED44	FORTRAN, MathCad, Excel, Axum, Unix, Special Inhouse	SGI, HP, PC	30 GB	3/2
Plasma Analysis Support	Plasma analysis for such programs as Second Generation Reusable Launch Vehicle/Space Launch Initiative (SLI) Program, Propulsive Small Expandable Deployer System (ProSEDS) Mission, Step-AirSEDS Project and International Space Station (ISS) Plasma Contactor Hardware Development.	ED44	N/A	N/A	N/A	N/A
STEM	Simple Thermal Environment Model	ED44	FORTRAN	SGI or other UNIX, PC	11.5 MB data files	3/2
S3EE	Space Shuttle, International Space Station (ISS) and Space Launch Initiative (SLI) Electromagnetic Environment (EME) Support	ED44	Various	Various	N/A	N/A

Table 3.2.1.1 MSFC APPLICATON SERVICES TABLE

Application/ Service Name	Description	Customer Org.	Supporting Software	Platform(s)	File Size/#of Users/LOC	Category/ Time Per.
SANTE	Systems Administration/Scientific Analysis Natural Terrestrial Environments	ED44	FORTRAN, MathCad, McIDAS-X, Excel, Axum, HP-UX, IRIX, tcl/tk, McIDAS	SGI, HP, PC	5 MB	1/3 3/2
FPDIS	Flight Projects Directorate Information System	FD01	C++, SQL*Plus, SQL, PL/SQL, 4GL Script Language. Oracle is the Relational Data Base Management System (RDBMS) used to manage approximately 350 active tables that support FPDIS. The system also houses approximately 100 archived tables.	IBM RISC 6000/UNIX, Macintosh, and PC workstations	C++ - 8,000 LOC 4GL - 6,500 LOC SQL - 5,000 LOC UNIX - 2,000 LOC	3/2
FPD Customer Support	The PrISMS support person(s) assigned to FPD provide daily support activities	FD01	Various	Various	N/A	N/A
DATA	Data Analysis Program	FD31	C	UNIX, PC	4,615 LOC	3/2
IMAGE Software Support	Imager for Magnetopause-to-Aurora Global Exploration (IMAGE) Software Support	SD01	C, TclTk, AppleScript	Sun, PC, and Macintosh	Approximately 100 Users 155,000 LOC	3/2
SDMD	Science Directorate Publications Metrics Database	SD01	HTML, Visual Basic, VBScript, JavaScript, Microsoft SQL Server, Microsoft Access	Sun PC, and Macintosh	Approximately 300 Users 20,000 LOC	3/2
NSSTC Customer Support	A variety of Information Technology (IT) support is provided to all NASA and NASA affiliated contractors within the NSSTC.	SD03	Various	Various	N/A	N/A

Table 3.2.1.1 MSFC APPLICATON SERVICES TABLE

Application/ Service Name	Description	Customer Org.	Supporting Software	Platform(s)	File Size/#of Users/LOC	Category/ Time Per.
VMPS Database	Virtual Local Area Network (VLAN) Membership Policy Server (VMPS)	AD34	HTML, Visual Basic, Visual C++, VBScript, and JavaScript, Microsoft SQL server	PC	Approximately 5 users 5,000 LOC	3/2
MDL	Microgravity Development Laboratory	SD43	Microsoft Management Console Versions 1.1, Internet Information	Windows NT 4.0	2,047 MB NTFS	3/2
PACRATS	Payloads and Components Real-Time Automated Test Systems	SD43	Windows NT, Windows 95/98 Operating System, Microsoft Visual C++ compiler	Any Intel 80486 equivalent or higher PC compatible computer. The same hardware is used for both acquisition and display computers, as well as for storing, converting, and plotting data.	911 MB	1/3 3/2
LENA Software Support	Low Energy Neutral Atoms (LENA) Software Support	SD50	C, IDL, HTTP, HTML, CGI, PERL	Sun	Approximately 50 Users 45,000 LOC	3/2
MAG-MOD	Magnetospheric Modeling Software (MAG-MOD)	SD50	FORTRAN, C, and IDL	Sun (UNIX), DecAlpha (VMS)	Approximately 10 Users 40,000 LOC	3/2
PSPPI	Polar Spacecraft Plasma Physics Instruments	SD50	C, IDL, HTTP, CGI, PERL, SQL, FORTRAN, and Oracle	Sun, PC, and Macintosh	Approximately 75 Users 215,000 LOC	3/2
SC-INST-DEV	Spacecraft Instrument Development and Simulation	SD50	FORTRAN, IDL	DEC Alpha (VMS), Sun (UNIX)	Approximately 3 Users 55,000 LOC	3/2

Table 3.2.1.1 MSFC APPLICATON SERVICES TABLE

Application/ Service Name	Description	Customer Org.	Supporting Software	Platform(s)	File Size/#of Users/LOC	Category/ Time Per.
SPSS	Solar Physics Support Software	SD50	FORTRAN, C, and IDL	DEC Alpha (UNIX), PC	Approximately 10 Users 50,000 LOC	3/2
SUMI Program	Solar Ultraviolet Magnetograph Instrument (SUMI) Program	SD50	Labview	PC	838 KB	3/2
ProSEDS Software Support	Propulsive Small Expendable Deployer System (ProSEDS) Software Support	SD50	IDL	PC	Approximately 2 users 1,700 LOC	3/2
BLDN	Brazil Lightning Detection Network	SD60	Microsoft Windows NT, Perl, C, NCSA HDF	Intel PC	Approximately 500 Users 26,000 LOC	1/3 3/2
LIS	Lightning Imaging Sensor	SD60	IRIX 6.2, C 7.2, ECS PGS toolkit 5.2, IDL, NCSA HDF	SGI Origins	Approximately 500 Users 36,000 LOC	1/3 3/2
LMA	Lightning Mapping Array	SD60	Redhat Linux, Perl, C, NCSA HDF	Intel PCC	Approximately 500 Users 7,500 LOC	1/3 3/2
MSFCPPP Program	The MSFCPPP is used to analyze and plot data from any one of three sources.	SD60	Microsoft C, C++, and Labview, Windows NT 4.0 Operating System	PC	1.4 MB	2/2
X-Ray Calibration Facility Customer Support	Support is provided for SUN UNIX workstations used by the X-Ray Calibration facility.	SD74	Various	Sun Unix	N/A	3/2
OTIS	Optimal Trajectories by Implicit Simulation	TD30	FORTRAN	Sun and DEC Alpha (Unix)	144,367 LOC	3/2
OPGUID	Optimum Guidance	TD30	FORTRAN	PC, DEC Alpha (UNIX)	9,207 LOC	3/2
POST3D	Program To Optimize Simulated Trajectories – 3 Degrees of Freedom	TD30	FORTRAN	DEC Alpha (UNIX), SGI (UNIX)	75,682 LOC	3/2

Table 3.2.1.1 MSFC APPLICATON SERVICES TABLE

Application/ Service Name	Description	Customer Org.	Supporting Software	Platform(s)	File Size/#of Users/LOC	Category/ Time Per.
POST6D	Program to Optimize Simulated Trajectories – 6 Degrees of Freedom	TD30	FORTRAN	DEC Alpha (UNIX), SGI (UNIX)	89,347 LOC	3/2
Customer Support	Support is provided for three Silicon Graphics and Compaq Alpha System computers.	TD30	Various	SGI, DEC Alpha	N/A	2/2
UTIL LIB	Utility Library	TD30	FORTRAN 77, C	DEC Alpha (UNIX), SGI (UNIX)	13,948 LOC	3/2
SunAcc	Test Data Read and Write Library	TD51	Microsoft Visual C++, ANSI C	Windows workstations running 95/98/NT4 or 2000 and UNIX – based workstations	Approximately 5,700 LOC 20 users locally, 5 – Canoga Park, 5 – Stennis, unknown number at other locations	3/2
WinPlot	Test Data Plotting Applications	TD51	Microsoft Visual C++	Windows workstations running 95/98/NT4 or 2000	Approximtely 35,000 LOC 400+ users locally, 300+ - Cango Park, 75 – Stennis, unknown number at other locations	3/2
TD55 Customer Support	Support is provided for SUN UNIX workstations used by the Control System Group, TD55.	TD55	Various	Sun UNIX	N/A	2/2
Engineering Support	Engineering support is provided for the operation of the data analysis systems and data reduction software in support of the Space Shuttle Main Engine (SSME) hot firings and shuttle flights.	TD60	Various		60 Users	1/3 3/2

Table 3.2.1.1 MSFC APPLICATON SERVICES TABLE

Application/ Service Name	Description	Customer Org.	Supporting Software	Platform(s)	File Size/#of Users/LOC	Category/ Time Per.
GPDAS Version EO7	General Purpose Data Acquisition System (GPDAS) Version E07	TD70	FORTRAN IV and 77 and Assembly Compilers Encoded in the system	Modcomp Classic II/45 16-Bit Dual CPU System with MAX IV Operating System	100,000+ LOC	1/3 3/2
MCDAS	Measurement and Controls Data Acquisition System	TD70	C, custom	HP ALPHA models DS20 and ES40	Approximately 1,000,000 LOC	1/3 3/2
Test Area % Complete of Work Authorization	Used by LB&B technicians, leads, supervisors to provide an accurate estimate of work completion per WATS Open Item (TPS Document)	TD72	Microsoft Access, Visual Basic for Applications, IIS, ASP/VBScript, Microsoft Access	Windows workstations running 95/98/2000	Client Applications: 960~; Server Side ASP: 1200~ 15 users local to Test Area	3/2
Test Area Project List	Used by NASA/Contractor personnel working with Macintoshes and thus unable to access the macros supplied to Windows users via the NASA Timesheet created with Microsoft Excel.	TD72	Internet Explorer or Netscape, Microsoft Access, IIS, ASP/VBScript, Microsoft Access	Any workstation	Server Side ASP: 60~; Administrative Application: 90~	3/2
WATS	Work Authorization Tracking System	TD70	FoxPro 5.0, Citrix, Espia libraries, SLICK! Graphics viewer Exchange, FoxPro 5.0 dBase	MSFC-TD70W NT File Server	250,000+ LOC not including external libraries Database currently requires 680 MB	3/2

3.2.1.2 Web Services

Internet Delivery Services (IDS) is a World Wide Web (WWW) development group that serves a broad spectrum of MSFC and agency customers. All services provided comply with Federal statutes and NASA and MSFC policies.

IDS supplies its customers with a variety of website services ranging from simply hosting customer-developed web pages to full service web content creation and deployment. Web services operate on a chargeback business method.

Software costs included standard web page coding and graphical packages, search engine licenses, web-based calendaring software, and web-based database software. While IDS does maintain some hardware, most of these services are provided through the ODIN contract. Hardware purchases included items that are not provided through the standard ODIN offerings such as streaming hardware. Streaming hardware is being used in a streaming services pilot with work on multicast streaming over a new network infrastructure. Internal and Agency streaming capability has been expanded with the use of Real.com products. Production capability to stream ViTS to interested parties is anticipated in the FY03 timeframe. Before the end of CY03, the streaming services pilot should be in production with various channels of video streams, including NASA TV, MSFC Centerwide Television, the Learning Channel, and various live events, as well as on demand content.

Web services activities utilize such software as Apache, PERL, WebEvent (Web Calendar), Inktomi, Covalent Raven, PHP, JSP, ASP, NT, Lotus Notes, Lotus Domino, Macromedia Homesite, Macromedia Fireworks, Macromedia Dreamweaver, Macromedia Flash, Adobe Acrobat, Adobe Photoshop, Adobe Illustrator, Adobe Page Maker, Edit Plus, Photographic Edges, F-Secure, InFocus, and GettyImages PhotoDisc resources.

IDS supported MSFC's directorates as reflected in the following table.

Project Name/Website	Requiring Organization	Category
ACRONYM	AD33	3
AD10/OVERHEAD SUPPORT	AD10	3
AEROJET RCE PDR RID SYSTEM	TD52	2
AGENCY STREAMING PROJECTS	AD34	2
AIR SAMPLING DATABASE	AD02	2
AIRCRAFT SCHEDULING FORECAST	AD40	2
ALEX-NASA EDUCATION ALUMNI EXCHANGE	CD60	2
AMER INSTITUTE OF AERONAUTICS AND ASTRON	AD33	3
APS TEST BED PDR	TD52	2
ART GALLERY	CD70	3
ASTROBIOLOGY CONFERENCE	SD01	3
BALANCED SCORECARD	CD40	2

Project Name/Website	Requiring Organization	Category
BATTERY WORKSHOP	ED10	3
BIOLOGICAL CRYSTAL GROWTH	SD41	3
CAER	CD01	2
CAFETERIA MENU WEBSITE	AD02	2
CAL LAB	AD20	3
CENTER OPERATIONS	AD01	2
CENTER OPERATIONS ONE SHOP SERVICE	AD01	3
CENTER OPERATIONS-NEW DESIGN	AD02	3
CENTER OVERVIEW CHARTS	DA01	2
CENTERWIDE EVENT STREAMING	AD34	3
CFC CAMPAIGN 2002	CD50	2
CFO EARNED VALUE MANAGEMENT	RS01	2
CO SIGNATURE LOG	AD02	3
CO TRACKER	AD01	3
CONTENT CONTRIBUTOR DATABASE	AD33	3
CONTINUAL IMPROVEMENT	CD40	3
CONTRIBUTION/WORKING FOR AMERICA'S FUTUR	RS50	3
CORE CATALOG	CD60	2
COSMIS USER INTERFACE	AD33	3
DAILY PLANET	CD40	3
DART CRITICAL DESIGN RID	UP40	3
DIGITAL TELEVISION PROJECT	AD01	3
DIRECTORS CORNER MINUTES & WEEKLY NOTES	DA01	3
DOCUMENTUM RESEARCH	AD33	3
E-LISTEN WEBSITE ASSISTANCE	AD33	3
EARTH TO ORBIT	CD60	3
ED CUSTOMER SATISFACTION SURVEY	ED02	3
EDUCATOR ASTRONAUT WEBSITE	CD60	1
EDUCATOR RESOURCE CENTER	CD60	2
ELECTOSTATIC LEVITATION FACILITY	SD46	3
EMDL REWRITE FOR WIN2000	AD33	3
EMERGENCY OPERATIONS CENTER	AD20	2
EMPLOYEE DEVELOPMENT	CD20	3
ENGINEERING DIRECTORATE	ED01	1
ENVIRONMENTAL ENGINEERING	AD10	3
EQUAL OPPORTUNITY OFFICE	OS01	2
EXECUTIVE TRACKER	DA01	2
EXHIBITS	CD70	3
EXHIBITS SURVEY KIOSK	CD70	3
EXPORT CONTROL / ITAR LOCK DOWN	AD33	3

Project Name/Website	Requiring Organization	Category
FACILITIES ENGINEERING	AD20	2
FIRST TIME LAUNCH VIEWER PROGRAM	CD03	3
FISSION CAMERA	TD01	3
FLIGHT PROJECTS EXTERNAL SITE	FD01	2
FLIGHT PROJECTS INTERNAL SITE	FD01	2
FOIA	CD50	2
FREEDOM TO MANAGE WEBSITE	DA01	3
FUSION CAMERA	TD01	3
FUTURE ASSETS-STUDENT TALENT (FAST)	OS01	3
GLIMIT	SD40	3
GOVERNMENT COMM RELATIONS	CD50	3
GRAVITY PROBE B RID SYSTEM	SD32	3
HEDS VISUAL ASSET TRACKING	CD70	3
HUMAN RESOURCES DEPARTMENT	CD10	3
IDEAS	CD40	2
IDS INTERNAL ADDRESS MGMT SYSTEM	AD33	3
IFMP AT MSFC WEBSITE	CD40	2
IFMP COREFIN & PROJ OFC WEBSITES	AD04	2
IMAGING SERVICES WEBSITE	AD33	3
INSIDE MARSHALL-INSIDE/OUT	CD40	2
INSIDE MARSHALL-INTERNAL	CD40	1
INTERNET DELIVERY SERVICES	AD33	3
ISD PASSWORD MONTHLY NEWSLETTER	AD33	3
ISD STANDARD OPERATING PROCEDURES	AD30	3
IT SECURITY WEB PAGE RELOCATION	AD30	3
LOGISTICS SERVICES	AD40	3
MACWORLD STREAMING	AD34	3
MARSHALL ASSOCIATION	OS01	3
MARSHALL CHILD DEVELOPMENT CENTER	DA01	3
MARSHALL EXCHANGE (MARS)	CD10	3
MARSHALL IMAGE EXCHANGE (MIX)	AD33	3
MARSHALL INTEGRATED DOCUMENT LIBRARY	AD30	3
MARSHALL PUBLIC HOME	CD40	1
MARSHALL SAFETY	AD40	3
MARSHALL STAR	CD40	3
MARSHALL TELEVISON SERVICES WEBSITE	AD33	3
MENTOR/ADVISOR WORKSHOP	CD60	3
MICROGRAVITY	SD13	2
MICROGRAVITY APPLICATION TO FLY EXPERIME	SD41	3
MOONBUGGY	CD60	2

Project Name/Website	Requiring Organization	Category
MRPO INTERNAL WEBSITE	SD11	3
MSFC EDUCATION	CD60	2
MSFC EXCHANGE ELECTRONIC VOTING	CD10	3
MSFC HISTORY	CD40	3
MSFC KNOWLEDGE MANAGEMENT	AD34	3
MSFC NEWSROOM & VIRTUAL NEWS WEBSITES	CD70	3
MSFC TELEPHONE DIRECTORY	AD30	1
MSFC VISITOR APPROVAL DATABASE	AD50	2
NACC MID-RANGE SURVEY	AD31	3
NASA ADP CONSOLIDATION CENTER	AD31	2
NASA CORE	CD60	2
NASA E-EDUCATION INITIATIVE	CD60	1
NASA EXPLORER SCHOOLS WEBSITE	CD60	1
NASA HQ EDUCATION WEBSITE	CD60	2
NASA INFORMATION SUPPORT CENTER	AD33	2
NASA KIDS AND LIFTOFF REHOSTING	CD60	2
NASA POSTMASTERS	AD30	3
NASA X500 DIRECTORY	AD33	3
NASA X500 DIRECTORY (UI)	AD33	3
NASA-WIDE X500 WEB DIRECTORY	AD33	3
NASAEXPLORES WEBSITE	CD60	1
NSSTC PERSONNEL LIST	SD03	3
NSSTC PUBLIC WEBSITE	SD03	3
OBPR IMAGE ARCHIVE	SD13	3
OCCUPATIONAL HEALTH WEBSITE	AD02	3
OFFICE OF CHIEF COUNSEL	LS01	3
OFFICIAL LAUNCH VISITOR LOG	CD03	3
PAYLOAD TRAINING AND CREW OPERATIONS	FD01	3
PRINCIPAL CENTER FOR COMPUTING ARCHITECT	AD33	3
PRISMS AGENCY SUPPORT DEPARTMENT	AD33	3
PRISMS CUSTOMER SERVICE DEPARTMENT ISO90	AD33	3
PRISMS WEB ARCHITECTURE TEAM	AD33	2
PROTECTIVE SERVICES	AD50	3
REDESIGN FOR RUSSIA SUPPORT WEBSITE	AD33	3
REPOSITORY LOGO DESIGN	AD33	3
S&MA CUSTOMER SURVEY	QS40	3
SAFETY, HEALTH & ENVIRONMENT WEBSITE	QS01	3
SCIENCE DIRECTORATE INTERNAL WEBSITE	SD01	3
SLI ACTION ITEM TRACKING	UP02	2
SPACE LAUNCH INITIATIVE INTERNAL WEBSITE	UP02	2

Project Name/Website	Requiring Organization	Category
SPACE OPTICS MANUFACTURING TECHNOLGY	SD73	3
SPACE PRODUCT DEVELOPMENT	SD12	3
SPACE SHUTTLE WORKING GROUP	MP71	3
SPACE TRANSPORTATION DIRECTORATE WEBSITE	TD01	2
SPACELINK	CD60	1
SSME TEST STREAMING VIDEO	SD01	3
STD EMPLOYEE INFO	TD01	3
STREAM MONTHLY WEBMASTER VITS	AD33	3
STREAM WEBMASTER VITS	AD33	3
STREAMING MSFC CABLE TV	AD32	3
STREAMING PROJECT -- WEB FRONT END	AD33	3
STUDENT ACCESS TO SPACE (SPACECRYSTAL)	SD44	3
SUMMER INTERN PROGRAM	OS01	3
TAKE CHILDREN TO WORK DAY	OS01	2
TD CUSTOMER SATISFACTION SURVEY	TD03	3
TECHNOLOGY TRANSFER	CD30	2
TRW RCE PDR RID SYSTEM	TD52	3
UNITES WEBSITE	AD32	2
USENET NEWS	AD33	3
UTILITY OUTAGES	AD20	3
WEB CALENDAR	AD33	2
WEBCAST/STREAMING MEDIA RESEARCH	AD33	3
WEBSITE REGISTRATION	AD32	3
X-37 ACTION ITEM DATABASE	TD20	2
X-37 ALT DESIGN & ANALYSIS REVIEW	TD20	2
X-37 ALT REQUIREMENTS REVIEW RID	TD20	2
X-37 SVR RID SYSTEM	TD20	2
X-38 DEORBIT PROP RID	TD01	2

3.2.2 Computer Systems Services

3.2.2.1 Business Midrange

The Office of the CIO supports a wide range of MSFC's administrative and business applications and also for the Agency. These applications currently execute on mid-range size computers such as IBM RS6000’s, Compaq DL380’s and others. Most of these systems are located in Bldg. 4663 at MSFC. The primary functions of the Midrange Group include providing hardware and systems software enhancements to meet CIO customers' performance requirements in response to changing workloads and technologies. The group also maintains operating systems, database management systems, compilers, libraries, and all other systems software necessary for the operation, execution and security of the computer and communications systems. Midrange will

tailor the services to meet the individual requirements for that customer. Among the services provided include: system administration (as much or as little as wanted by the customer), backups of system and/or data, program and data security, print production and dissemination, scheduling, quality control, IT security – including installation of patches, working within restrictions involving firewalls and other security-related constructs, compliance with NASIRC bulletins, utilizing Secure Shell for host authentication, user authentication and encryption, use of TCP/IP wrappers, system monitoring, troubleshooting and other appropriate system-related activities as required by the customers.

3.2.2.2 Engineering and Scientific Midrange

The Office of the CIO supports applications that execute on the Engineering Computing System (formerly known as Engineering Analysis and Data System – EADS) for the engineering and science customers at MSFC. This system includes a Virtual Memory Compute System (VMCS), SGI Origin 3900 (to be installed in Spring 2003), a Virtual Memory File System (VMFS) SGI Origin 2000, and the EDALF1 (no current meaning to letters) HP DEC Alpha 4800. This system also includes a near-line storage system consisting of two StorageTek Silos with over 10 Terabytes of data storage available and 14 Terabytes of RAID disk. This system is primarily used for analysis including thermal, structural, computational fluid dynamics, and various scientific codes monitoring weather, analyzing crystal growth and many other functions. The primary tasks of the Midrange Group supporting the ECS are similar to that for the business applications, including providing hardware and systems software enhancements to meet CIO customers' performance requirements in response to changing workloads and technologies. The group also maintains the operating systems, compilers, libraries, and all other systems software necessary for the operation, execution and security of the computer and communications systems. The customers have some codes that they bring onto the system themselves and some third-party codes are provided. A few examples of codes that are provided on the system include NASTRAN, ANSYS, ABAQUS, PATRAN, codes providing mathematical functions and others. Some of these codes are installed and maintained by the contractor and some are installed and maintained by customers. Total responsibility for the ECS system administration lies with the Office of the CIO and their contractor including backups of system and/or data, program and data security, scheduling, quality control, IT security – including installation of patches, working within restrictions involving firewalls and other security-related constructs, compliance with NASIRC bulletins, utilizing Secure Shell for host authentication, user authentication and encryption, use of TCP/IP wrappers, system monitoring, troubleshooting and other appropriate system-related activities as required.

3.2.2.3 User-Owned Mid-Range

The Office of the CIO also provides midrange services to customers across MSFC for other scientific and engineering requirements. The task load is very similar to that of the business applications except for the location of the systems. Many of these systems are located in customers' buildings at MSFC, and some of them are located in C260 of Bldg. 4663 at MSFC. This is entirely dependent on the customers'

requirements. These applications currently execute on mid-range size computers such as Suns, Silicon Graphics, Compaqs, Dells, HPs and others. The primary functions of the Midrange Group include providing hardware and systems software enhancements to meet CIO customers' performance requirements in response to changing workloads and technologies. The group also maintains operating systems, database management systems, compilers, libraries, and all other systems software necessary for the operation, execution and security of the computer and communications systems. Midrange will tailor the services to meet the individual requirements for that customer. Among the services provided include: system administration (as much or as little as wanted by the customer), backups of system and/or data, program and data security, print production and dissemination, scheduling, quality control, IT security – including installation of patches, working within restrictions involving firewalls and other security-related constructs, compliance with NASIRC bulletins, utilizing Secure Shell for host authentication, user authentication and encryption, use of TCP/IP wrappers, system monitoring, troubleshooting and other appropriate system-related activities as required by the customers.

Hostname	NEMS	Vendor	Model	Operating System	Bldg.	Room	Orgn.	Project
adminap1	2013518	Compaq	DL380	W2K SP2	4663	B107	AD	AdminStar
adminap2	2013527	Compaq	DL380	W2K SP2	4663	B107	AD	AdminStar
adminap3	2014077	Compaq	DL380 g2	W2K	4663	B107		AdminStar
admindb	2013430	SUN	SunFire 280R	Solaris 2.8	4663	B107	CD02	AdminStar
admindev	2013429	SUN	SunFire 280R	Solaris 2.8	4663	B107	CD02	AdminStar
admindv1	2013524	Compaq	DL380	W2K SP2	4663	B107	AD	AdminStar
adoss-rd	2011967	Compaq	1850R	NT4.0/SP6A	4663	B107		
aim1gsfc	1894202	IBM	RS6000 Model 390	AIX 4.1.4	GSFC-18	110	AD32	ADE
aim1mgmt	1538111	IBM	RS6000 Model 370	AIX 4.3.1	4663	C269	AD32	ADE
aim1msfc	1442410	IBM	RS6000 Model 390	AIX 4.3.1	4663	B107	AD32	ADE
aim2gsfc	1894203	IBM	RS6000 Model 390	AIX 4.1.4	GSFC-18	110	AD32	ADE
aim2mgmt	1538105	IBM	RS6000 Model 370	AIX 4.3.1	4663	C260	AD32	ADE
aim2msfc	1442409	IBM	RS6000 Model 390	AIX 4.3.1	4663	B107	AD32	ADE
aim3msfc	1443030	IBM	RS6000 Model 390	AIX 4.3.1	4663	B107	AD32	ADE
aim4msfc	1443029	IBM	RS6000 Model 390	AIX 4.3.1	4663	B107	AD32	ADE
alchemy	2013001	IBM	RS6000 44P Model 27	AIX 4.3.3	4203	2134	TD40	ADE
amidala	1964544	SGI	Octane	Irix 6.5.18f	4663	180	ED19	
anakin	1964356	SGI	Onyx2	Irix 6.5.18f	4663	180	ED19	
apubmd	2014188	SUN	SunFire 280R	Solaris 2.8	4663	B107		
arthur	2012620	SGI	Octane2	Irix 6.5.18m	4666	250	ED22	
aubie	1958673	Sun	Ultra 5	Solaris 2.6	4476	114A	ED19	
bashful	1963088	Micron	PC	W2K	4663	B107		
batman	1898369	SGI	O2	Irix 6.5.18m	4666	389	ED22	
blues	2010763	Compaq	4100	VMS 7.2	4663	C210	MP31	
bluto	2012504	Dell	Precision 420	RedHat Linux 7	4663	M128	AD32	EADS
bo	1962606	SGI	Octane	IRIX 6.5.17f	4476	110	ED19	MAST Lab
brodrig	1443196	SGI	Indigo	Irix 5.3	4663	C110	AD32	EADS
buffopc	1399394	SGI	Indigo	Irix 5.3	4663	C260	AD32	
buffy	2017371	SGI	Origin 3400	Iris 6.5.18m	4663	C260	ED21	

Hostname	NEMS	Vendor	Model	Operating System	Bldg.	Room	Orgn.	Project
bulldog1	1960505	SGI	Octane	IRIX 6.5.17f	4476	110	ED19	MAST Lab
buzz	521664	SGI	Octane2	Irix 6.5.18m	4666	380	ED22	
byers	1893405	SGI	O2	Irix 6.5.18m	4666	120	ED21	
cauchy	1965416	Compaq ES40		Unix 5.1	4663	B113	ED22	ED22
cfo	2011820	Compaq	1850R	NT4.0/SP6A	4663	B107	RS30	WebTADS
cfo1	1961062	Micron	Millennia	W2K/SP2	4663	B107	RS30	WebTADS
cfodb1	2012989	Sun	SunFire 280R	Solaris 2.8	4663	B113	RS30	WebTADS
cfodb2	2012990	Sun	SunFire 280R	Solaris 2.8	4663	B113	RS30	WebTADS
chimaera	2018103	Think	Beowulf Cluster	RedHat Linux 7.1	4663	C260	TD64	
chimaera1	2018106	Think	Beowulf Cluster	RedHat Linux 8	4663	C260	TD64	
chimaera3	2018105	Think	Beowulf Cluster	RedHat Linux 8	4663	C260	TD64	
chimaera4	2018104	Think	Beowulf Cluster	RedHat Linux 7.1	4663	C260	TD64	
columbia	2013549	Sun	Blade 1000	Solaris 8	4491	126	AD33	
cooper	2013004	SGI	O2	IRIS 6.5.15m	4487	B177	ED12	
crimson	0	SGI	Octane	Iris 6.5.15f	4476	110	ED19	MAST Lab
dbdev	2013548	Sun	Blade 1000	Solaris 8	4491	126	AD33	
droid3	1397527	SGI	Challenge XL	Irix 6.5	4663	C210	MP31	
droid7	1537516	SGI	Challenge XL	Irix 6.5	4663	C210	MP31	
eagle1	2017758	Sun	Ultra Sparc 30	Solaris 8	4487	A149	ED19	
ec	2011673	Sun	Ultra 10	Solaris 2.7	4663	B107	CSC	
ecom	1723068	Sun	SparcStation 10	Solaris 2.6	4663	B107	CSC	
edalf1	1740793	Compaq	8400 Tru64	Unix 5.1	4663	B113	AD32	EADS
edalf1opc	1399400	SGI	Indigo	Irix 5.3	4663	B113	AD32	EADS
fall	1740733	SGI	Indigo2	Irix 6.2	4663	C261	ED19	
ferdie	1441601	SGI	Indy	Irix 6.5.14f	4619	165	ED19	
foundation	1399410	SGI	Indigo	Irix 6.5.18m	4663	M128	AD32	EADS
frohike	1898410	SGI	O2	Irix 6.5.18m	4666	119	ED21	
glimit	1899412	Micron	P200	RedHat Linux 6.1	4481	B274	ED14	
gomez	1963722	Sun	Enterprise 450	Solaris 5.8	4203	B302	TD63	

Hostname	NEMS	Vendor	Model	Operating System	Bldg.	Room	Orgn.	Project
haven	1963590	SGI	O2	Irix 6.5.19m	4663	C114	AD32	
helpdesk	1958921	Sun	Ultra 5	Solaris 5.7	4663	C260	AD33	
homey	1958376	Sun	Ultra 60	Solaris 5.8	4203	4403	TD63	
hydra	2012295	Beowulf	Cluster	RedHat Linus 7.1	4663	C260	TD64	
icdmsap1	2013044	Sun	SunFire 280R	Solaris 2.8	4663	B107	ED43	
icdmsdb1	2013045	Sun	SunFire 280R	Solaris 2.8	4663	B107	ED43	
icecast	1961739	Apple	Macintosh G3	Mac OS	4663	B107		
ids12	1632005	Cobalt	RaQ4	Linux	4663	B113	AD33	
idsopc	1399408	SGI	Indigo	Irix 5.3	4663	B113	AD32	
ips2	1958587	SGI	Octane	Irix 6.5.13m	NSSTC	2015	AD32	EADS
itips	1632545	compaq	dl360g2	W2K SP2	4663	B107		
itips1	1632544	compaq	dl360g2	W2K SP2	4663	B107		
itips2	1632543	compaq	dl360g2	W2K SP2	4663	B107		
janus	1965610	SGI	O2	Irix 6.5.19m	4663	C112	AD32	EADS
jazz	2010762	Compaq	4100	VMS 7.2	4663	C210	MP31	
jetson	1936214	Sun	Enterprise 3000	Solaris 5.8	4203	B302	TD51	
jimi	1899686	Sun	Ultra 2 Creator 3D	Solaris 9	4476	200	ED19	Flight SW
journey	2016584	COMPAQ	ES40 833Mhz	Unix 5.1	4663	B113	ED22	ED22
judy	2011930	Sun	Enterprise 250	Solaris 5.8	4203	B302	TD51	
kepler	1937400	SGI	Indigo2	Irix 6.2	4663	C261	ED19	
krycek	1896423	SGI	O2	Irix 6.5.12m	4666	124	ED21	
LaSSe	1632533	compaq	dl360g2	W2K SP3	4663	B107		
lcf	2015290	SGI 2100	2100	Irix 6.5.18m	4663	B113	ED33	
leela	2011048	SGI	Octane	Irix 6.5.18m	4666	123	ED21	
leibniz	2010316	Paralogics	Annihilator	Linux 2.2.16-plogic-1	NSSTC	2015	AD32	NSSTC
lexington	2013552	Sun	Blade 1000	Solaris	4491	126	AD33	
lurch	1898162	Sun	Ultra 2 Creator 3D	Solaris 5.8	4203	B302	TD63	
maggie	1898356	SGI	Onyx2	Irix 6.5.14m	4663	B113	ED22	ED22
merlin	1725098	SGI	Power Challenge L	Irix 6.5.18m	4666	250	ED22	

Hostname	NEMS	Vendor	Model	Operating System	Bldg.	Room	Orgn.	Project
mohave	1722668	Sun	Ultra 140	Solaris 7	4663	C260	ED14	
morticia	1272461	Sun	Ultra 2 Creator 3D	Solaris 5.8	4203	B302	TD63	
mprimd	2014189	SUN	SunFire 280R	Solaris	4663	B107		
mpubmd	2014190	SUN	SunFire 280R	Solaris 2.8	4663	B107		
msfc-eh01	1961773	Compaq	ProSigna740 NT4.0	SP6A	4663	B107	EH	
msfc-eh53	1900327	Dell	PC NT4.0	SP6A	4663	B107	EH53	
msfcmr01	1729061	Sun	Enterprise 5000	Solaris 2.6	4663	B113	AD32	
msfcmr02	1722789	Sun	SparcCenter 2000E	Solaris 2.6	4663	C260	AD32	
msfcvmfg	1632464	Dell	Power Edge 2550	W2K	4663	B107		
msfc_Photolab	213784	Compaq	Windows 4353				CSC	Photo Lab
msrr-src	1963411	Sun	Ultra 10	Solaris 2.6	4476	200	ED19	
mulder	1900298	SGI	Octane	Irix 6.5.18m	4666	117	ED21	
naade01	1958767	Compaq	6000	NT4.0/SP6A	4663	B107	AD33	ADE
naade02	1958769	Compaq	6000	NT4.0/SP6A	4663	B107	AD33	ADE
naade03	2011149	Compaq	1850R	NT4.0/SP6A	4663	B107	AD33	ADE
naade05	2011581	Compaq	1850R	W2K/SP2	4663	B107	AD33	ADE
naade06	2012544	Compaq	1850R	W2K/SP2	4663	B107	AD33	ADE
naade07	2012666	Compaq	1850R	NT 4.0/SP6A	4663	B107	AD33	ADE
naade23	1497473	IBM	RS6000 Model 390	AIX 4.1.5	4663	B107	AD32	ADE
naade24	1497472	IBM	RS6000 Model 390	AIX 4.1.5	4663	B107	AD32	ADE
naade25	1894209	IBM	RS6000 Model 390	AIX 4.1.5	4663	B107	AD32	ADE
naade26	1894208	IBM	RS6000 Model 390	AIX 4.1.5	4663	B107	AD32	ADE
naade27	1894200	IBM	RS6000 Model 390	AIX 4.1.5	4663	B107	AD32	ADE
naade28	1894201	IBM	RS6000 Model 390	AIX 4.1.5	4663	B107	AD32	ADE
naaohapps001	1632540	compaq	dl360g2	W2K SP2	4663	B107		
naaohmvp001	1632535	compaq	dl360g2	W2K SP3	4663	B107		
naccmd	2014187	SUN	SunFire 280R	Solaris 2.8	4663	B107		
naccms	2013426	SUN	SunFire 280R	Solaris 2.8	4663	B107		
naccor1	2013431	SUN	SunFire 280R	Solaris 2.8	4663	B107	AD31	ADE

Hostname	NEMS	Vendor	Model	Operating System	Bldg.	Room	Orgn.	Project
nais	1960175	Sun	Enterprise 450	Solaris 2.6	4663	B107	CSC	NAIS
naisdev	1810759	Sun	Ultra 2	Solaris 2.6	4663	B107	CSC	NAIS
naismail	1398779	Sun	SparcStation 10	Solaris 7	4663	B107	CSC	NAIS
naistest	1810760	Sun	Ultra 2	Solaris 2.6	4663	B107	CSC	NAIS
nancy	2012547	SGI O2	Irix 6.5.19f		4663	C111	AD32	EADS
necros	2013567	SGI	Octane 2	Iris 6.5.14m	4619	118	ED19	FRL
nemsc	2013528	Compaq	DL380	W2K/SP2	4663	B107	AD	NEMS
nemsdv1	2013521	Compaq	DL380	W2K/SP2	4663	B107	AD	NEMS
newton	2012505	Dell	Precision 420	RedHat Linux 7.0.2	4663	C110	AD32	EADS
no-DNS-1	1632402	Compaq	DL-360		4663	B160		
no-DNS-2	1632403	Compaq	DL-360		4663	B160		
no-DNS-3	2012944	Quantum	Snap Server	Snap OS	4663	B107		
no-DNS-4	2012797	Quantum	Snap Server	Snap OS	4663	B107		
no-DNS-5	2012849	Quantum	Snap Server	Snap OS	4663	B107		
no-DNS-6	2013764	Compaq	DL380		4663	B160		
no-DNS-7	2013846	Compaq	DL380		4663	B160		
no-DNS-8	2013551	Sun	Blade 1000	Solaris 8	4200	532D		
noscap1	2013526	Compaq	DL380	W2K/SP2	4663	B107	AD40	NOSC
noscap2	2013520	Compaq	DL380	W2K/SP2	4663	B107	AD40	NOSC
noscdb	2013432	SUN	SunFire 280R	Solaris 2.8	4663	B107	AD40	NOSC
noscdev	2013427	SUN	SunFire 280R	Solaris 2.8	4663	B107	AD40	NOSC
noscdv1	2013529	Compaq	DL380	W2K/SP2	4663	B107	AD40	NOSC
npdmsap1	2013525	Compaq	Dl380	W2K/SP2	4663	B107	AD40	NPDMS
obiwan	2014780	SGI	Octane	Irix 6.5.18f	4663	180	ED19	
oblina	521343	SGI	Octane2	Irix 6.5.18m	4666	113	ED21	
oper1	1399437	SGI	Indigo	Irix 5.3	4663	B107	AD32	EADS
opus	1958460	SGI	O2	Irix 6.5.18f	4663	180	ED19	
origin	1964681	SGI	Origin 2000 Deskside	Iris 6.5.14m	4619	165	ED19	
otgscan	1632537	compaq	dl360g2	W2K SP2	4663	B107		

Hostname	NEMS	Vendor	Model	Operating System	Bldg.	Room	Orgn.	Project
pds	1632534	compaq	dl360g2	W2K SP3	4663	B107		
pele	1958464	SGI	O2	Irix 6.5.18m	4666	120	ED21	
pubert	521430	Sun	SunBlade 1000	Solaris 5.8	4203	4405	TD63	
pugsly	521432	Sun	SunBlade 1000	Solaris 5.8	4203	4316	TD63	
radole	2012503	Dell	Precision 420	RedHat Linux 7	4663	C111	AD32	EADS
raois1	1401257	Sun	SparcCenter 2000E	Solaris 2.3	4663	B113	AD33	
ren	1396726	SGI	Onyx	Irix 6.5.18m	4663	B113	ED22	ED22
risc1b	1218918	DIGITAL	Risc DS5500	ULTRIX 4.5	4663	C210	MP31	
rooster	1964710	SGI	Origin 2000	IRIS 6.5.14f	4487	A114	ED12	RITAT
rooster-1	1964703	SGI	O2	IRIX 6.5.14f	4487	A114	ED12	RITAT
rooster-2	1964702	SGI	O2	IRIX 6.5.14f	4487	A114	ED12	RITAT
sail1	1146855	DEC	VAX 4000	VAX VMS 6.1	4663	B107	TD54	
sail5	1288122	DEC	Alpha 3000	OpenVMS 6.1 ALPHA	4663	B107	TD54	
sail6	1401314	DEC	Alpha 7000	OpenVMS 6.1 ALPHA	4663	B107	TD54	
salsa	2011962	SGI	Octane	Irix 6.5.18m	4666	122	ED21	
sandbox	2012650	Compaq	DL380	NT4.0/SP6A	4663	B107	AD33	
scarf1	2017881	SGI	Octane	IRIX 6.5.15f	4476	110	ED19	MAST Lab
scarf2	2017877	SGI	Octane	IRIX 6.5.15f	4476	110	ED19	MAST Lab
sccobra	1937387	SGI	O2	IRIX 6.5.18	4487	A125	CSC	
scooby	1898269	SGI	Power Challenge XL	IRIX 6.5.18f	4476	110	ED19	MAST Lab
scully	1538400	SGI	PowerOnyx	Irix 6.5.12m	4666	250	ED21	
skinner	1896869	SGI	Origin 2000	IRIX 6.5.18m	4663	C260	ED21	
sli1	2013500	Compaq	DL380	W2K/SP2	4663	B107	TD20	
sli2	2013501	Compaq	DL380	W2K/SP2	4663	B107	TD20	
sli3	2011249	Apple	Macintosh G4	Mac OS	4663	B107	TD20	
snazzy	1397770	Sun	SPARCstation 10	Solaris 2.7	4663	B107	AD33	ADE
snglist	514101	Compaq	AA550	W2K	4663	B107	AD	
solarap1	2013523	Compaq	DL380 Intel	Solaris 2.8	4663	B107	AD32	SOLAR
solarap2	2013522	Compaq	DL380 Intel	Solaris 2.8	4663	B107	AD32	SOLAR

Hostname	NEMS	Vendor	Model	Operating System	Bldg.	Room	Orgn.	Project
solarap3	2013949	Compaq	DL380 G2	Solaris 2.8	4663	B107	AD32	SOLAR
solarap4	2013950	Compaq	DL380 G2	Solaris 2.8	4663	B107	AD32	SOLAR
solarap5	2013946	Compaq	DL380 G2	Solaris 2.8	4663	B107	AD32	SOLAR
solarap6	2013947	Compaq	DL380 G2	Solaris 2.8	4663	B107	AD32	SOLAR
solardb2	2013945	SUN	SunFire 280R	Solaris 2.8	4663	B107	AD32	SOLAR
solardev	2013428	SUN	SunFire 280R	Solaris 2.8	4663	B107	AD32	SOLAR
solardv1	2013519	Compaq	DL380 Intel	Solaris 2.8	4663	B107	AD32	SOLAR
solarstor1	2013951	Compaq	DL380 G2	RedHat Linux 7.2	4663	B107	AD32	SOLAR
sparky	1727894	Sun	Ultra 1	Solaris 8	4476	110	ED19	
spiffy	1281299	Sun	SparcStation 10	Solaris 7	4663	C266	AD32	
spiffy2	1281280	Sun	SparcStation 10	Solaris 7	4663	C269	AD32	
spiffy3	1284428	Sun	SparcStation 10	Solaris 7	4663	C266	AD32	
spiffy4	1281277	Sun	SparcStation 10	Solaris 7	4663	B107	AD32	
spooner	1281279	SUN	SparcStation 10	Solaris 2.7	4663	C269	CSC	ADE
spring	1083331	SGI	Crimson	Irix 5.3	4663	180	ED19	
starbase	1963032	Sun	Enterprise 5000	Solaris 2.6	4663	B107	AD33	
stargate	1401890	Sun	SparcStation 20	Solaris 7	4487	B270	ED14	
stevie	2017500	Sun	Ultra 1 Creator 200E	Solaris 9	4476	200	ED19	Flight SW
stone	1537746	Sun	SparcStation 20	Solaris 5.8	4663	C269	AD32	
stream5	2012579	SGI	2100	Irix 6.5.18m	4663	B113	AD33	
stube	1963610	Dell	Precision 420	RedHat Linux 7	NSSTC	2015	AD32	
summer	1221725	SGI	310vgx	Irix 5.3	4663	180	ED19	
tapemgr	1963595	Sun	SparcStation 5	Solaris 2.6	4663	B113	AD32	EADS
tasc	1965054	SGI	Octane	IRIX 6.5.17f	4619	165	ED19	FRL
tasc2	2012034	SGI	Octane	IRIX 6.5.17f	4619	118	ED19	FRL
tasc3	1935777	SGI	Octane	IRIX 6.5.17f	4619	165	ED19	FRL
tatooine	1962888	Sun	Ultra 5	Solaris 2.6	4487	B270	ED14	
telos	2013566	SGI	Octane 2 V10	IRIX 6.5.14m	4619	118	ED19	FRL
tiger	2015393	IBM	Netfinity 8500R	W2K	4666	250	ED21	

Hostname	NEMS	Vendor	Model	Operating System	Bldg.	Room	Orgn.	Project
tiger1	1402036	ADI	RTS 2100	SVR3V7	4476	114	ED19	
tiger2	1402037	ADI	RTS 2100	SVR3V7	4476	114	ED19	
tlon	1898270	SGI	Power Challenge XL	IRIX 6.5.18m	4619	165	ED19	
trantor	1399438	SGI	Indigo	Irix 5.3	4663	M128	AD32	EADS
ttime	1397778	Sun	Sparc 1000	Solaris 2.6	4487	A149	ED19	
unsteady	521431	Sun	SunBlade 1000	Solaris 5.8	4203	4412	TD63	
uqbar	1724911	SGI	Power Challenge XL	IRIX 6.5.18m	4663	C261	ED19	
venture	1724262	Sun	SparcStation 5	Solaris 7	4487	A125	CSC	
veritas-master	2012665	Compaq	DL380	NT4.0/SP6A	4663	B107	AD	
vmcs	1963606	SGI	Power Challenge XL (being upgraded to Origin 3900)	IRIX 6.5.16f	4663	B113	AD32	EADS
vmcsopc	2011665	SGI	Indigo	Irix 5.3	4663	B113	AD32	EADS
vmfs	1963607	SGI	Origin 2000	IRIX 6.5.16f	4663	B113	AD32	EADS
vmfsopc	1399424	SGI	Indigo	Irix 5.3	4663	B113	AD32	EADS
vtwin	521345	SGI	Octane2	Irix 6.5.18m	4666	122	ED21	
war	1439446	Sun	SparcStation 10	Solaris 2.6	4487	B274	ED14	
webdev	2013550	Sun	Blade 1000	Solaris 8	4491	126	AD33	
webdev01	1959839	Gateway	2000 Pentium II	RedHat Linux 7.2	4663	B107	AD32	WebTADS
webtads1	2012987	Compaq	DL380	W2K/SP2	4663	B107	AD32	WebTADS
webtads2	2012988	Compaq	DL380	W2K/SP1	4663	B107	AD32	WebTADS
webtads3	2013952	Compaq	DL380 G2	RedHat Linux 7.2	4663	B107	AD32	WebTADS
wednesday	521433	Sun	SunBlade 1000	Solaris 5.8	4203	4304	TD63	
winevm1	1632532	compaq	dl360g2	W2K	SP3	4663	B107	
winevm2	1632531	compaq	dl360g2	W2K	SP3	4663	B107	
winter	1083330	SGI	Crimson	IRIX 5.3	4663	180	ED19	

3.2.2.4 Test Area

Contractor technicians supporting the test areas perform a wide variety of duties in the measurement, acquisition, reduction, and presentation of technical data obtained in the testing. The technicians consult and participate with instrumentation engineers concerning the detailed requirements of the test to be performed and conduct planning as to appropriate instrumentation/data systems required to provide necessary data. Additionally, the contractor operates system software programs to input data base information, define peripheral display requirements, and provide for data conversion and reduction for structural, propulsion, and environmental testing that require a wide range of sensor elements/instrumentation. Computer consoles are used during checkout, calibration, data acquisition, and data processing phases of test programs. Technicians install new equipment, perform equipment calibrations, and perform PM to insure against equipment malfunction. There were approximately 530 trouble tickets and 1,330 tests to support these functions in FY01.

3.2.3 Customer Requested Hardware and Software Maintenance

3.2.3.1 Hardware Maintenance

The contractors provide all necessary labor and parts to keep Government-owned equipment in good operating condition at all times. Hardware maintenance services are provided for over 10,574 pieces of ADP equipment located at MSFC, off-site MSFC civil service and contractor offices, and MSFC resident offices.

Maintenance services include Preventive Maintenance (PM), On-Call Repair Service, engineering assistance, and engineering change subscriptions. The contractor also provides sustaining engineering for various computer hardware and software systems. The contractor purchases and maintains the materials necessary to perform these tasks. Maintenance service also includes the movement of computer equipment, or providing for vendor assistance in moving large computer systems. Approximately 780 parts were distributed in FY01 from spares or procurement activities.

Maintenance personnel are often required to work overtime and are subject to emergency calls for servicing at night, on weekends, and on holidays. The contractor provides hardware maintenance services which include the performance of scheduled maintenance, the running of components and systems checkouts and diagnostic routines, periodic performance of system optimization, testing and repair of systems, subsystem and components, and isolation and repair of malfunctions. In addition to the preventive and remedial maintenance, the contractor is required to perform the following items when requested.

a. Technical consultation for existing and future systems.
b. Definition of add-on system capability, and/or subsystems.
c. Specification development.
d. Hardware interface and/or subsystem design, development, fabrication, and verification.

e. System integration.
f. System verification and checkout.
g. Drafting support for panel layout, and schematics/diagrams required for documentation.

Maintenance service personnel responded to approximately 900 trouble tickets in FY01, including preventive/remedial maintenance and installation/relocation activities. The Customer Support Center is the focal organization for receiving and processing calls.

Standard IT maintenance services provided the maintenance required for infrastructure items, such as the cable plant, computers that support MSFC administrative computing, IT security, and the help desk. It also provides maintenance for subcontracts, specialized IT equipment, non-ODIN equipment, and unique or “one of a kind” equipment, per customer request. Its functionality includes planning, implementation, installation, property management, and operations.

The contractor also provides full time onsite maintenance services for data systems in the MSFC East and West Test Areas. The contractor is provided with the necessary information about the planned test activities and critical periods of preparation and operation by the Government testing organization. The contractor is responsible for ensuring that maintenance personnel are readily available, or on standby, as required by the testing activities. When required by test activities, the tour of duty of the maintenance personnel is changed to provide second and third shift coverage. To ensure the minimum possible impact of equipment failures on test operations, the contractor effects periods of test preparation at the work site. These critical test preparation periods, which may occur at any time, are normally determined by test schedules.

3.2.3.2 Software Maintenance

The PrISMS contractor maintains software items; these items are associated with hardware for tracking purposes.

3.2.4 Telecommunications Services

The PrISMS contract provides all the telecommunication support services that are the responsibility of the CIO. This support encompasses the full life cycle of all telecommunication requirements including: user definition, engineering, installation, operation, and maintenance of the equipment and services. At MSFC, PrISMS services encompass the operation of all networking systems, video and data distribution systems, cable plant, television studio and associated production facilities, and the local InteCom Private Automatic Branch Exchange (PABX), Wireless Communications and associated telephone systems.

Other services and activities include the emergency warning system, radio paging, radio networks, and radio frequency (RF) management services. Support services for the radio networks and the InteCom PABX's and associated telephones,

pagers, and cell phones are also provided at MAF, as well as off-site facilities in Madison and Huntsville.

3.2.4.1 MSFC Telecommunications Systems

The Marshall Office of the CIO is responsible for providing telephone services for:

a. Marshall Space Flight Center.
b. Off-site facilities located in the city of Huntsville and Madison.
c. NASA Michoud Assembly Facility (MAF), located in New Orleans, LA.
d. Moscow, Russia.

The contractor provides the labor, material and other support required for the total operation of the administrative telephone services at MSFC, local off-site facilities, and MAF. Services provided include engineering, planning, installation, maintenance, testing, check out and operation of the systems, as well as integrated voice/data services for asynchronous data requirements. Telephone operator support is also provided at MSFC.

The contractor provides labor, material and other support required for the total operation and management of RF services at MSFC and MAF. These services include identification, planning, and coordination of RF spectrum requirements, allocation and assignment of frequencies, maintenance of frequency assignment records, and detection and reporting of RF Interference (RFI).

The current MSFC PABX switch is an Intecom S80+. This unit was installed in 1985 and is rapidly approaching end of life. Intecom discontinued manufacturing and engineering support for this system in December 2002. MSFC plans to have a new system in place by the end of 2003.

- MSFC Intecom IBX 80+ is configured with 12,066 active ports in 48 IM's. This switch can expand to 62 IM's with 16384 full ports. Four IM's are located off site. The IBX80+ has two processors and 10 IM's located in building 4207, room 140. The other IM's are connected to building 4207 on fiber cable.

  1. ITE Digital Ports 3250 assigned 3648 unassigned
  2. STE Analog Ports 8816 assigned 1727 unassigned
  3. 437 PRI Trunks (19 spans used for local trunks)
  4. 8 Pair of Dark Fiber to Intergraph in support of IFM, SLI, and training
  5. 6 Pair Dark Fiber to NSSTC, used for both data and voice
  6. 6 Pair Dark Fiber to CSOC, located at Bradford Drive
  7. 92 PRI Trunks (i.e., 4 spans) connected to the NISC G3 switch in Building 4207
  8. 92 PRI Trunks (i.e., 4 spans) connected to a modem pool to provide Remote Access Service (RAS) accounts
  9. Seven T1 circuits to FTS

10. One T1 circuit to Teledyne Brown
11. One T1 circuit to Space and Rocket Center
12. Three T1's to Russian Project

- Octel Voice Mail System – maximum configuration is 128 trunks. Support 10,000 mailboxes with 1,085 message minutes. Eight trunks of the 128 trunks are used for Interactive Voice Reorganization (IVR).

- Off-premise Extensions (OPX)
  1. Four to Redstone Arsenal Building 8023.
  2. One to Redstone Arsenal Building 5414.
  3. One to Redstone Arsenal Building 4190.
  4. One to Redstone Arsenal Building 7214.
  5. Two to E911 on Oakwood drive in Hunstville.
  6. Four to the Space and Rocket Center.
  7. Four to Farmers Home Administartion
  8. One to Northrup.
  9. One to Boeing North America.

- Non-switch related telephone service
  1. 27-flat rate Business lines provided by KMC and utilized as power fail circuits.
  2. Four PRI trunks for the Cisco remote dial in equipment.
  3. Six ISDN lines.
  4. Six flat rate business lines to the NSSTC.

- Emerging technologies such as VoIP and wireless desktop service. A wireless contract has been awarded that allows a cellular provider to tie into the MSFC PABX telephone switch. By connecting into the switch, CIO can provide its customers with wireless handsets that can replace and function like a conventional hard wired telephone (i.e., 5 digit dialing, FTS capability), while providing the user with mobility of service. CIO expects this service to expand rapidly as more and more users require cell phones.

- 660 Cell phones and the number is climbing (approximately 200 users added per year).

- 1600 Pagers – Combination MSFC owned paging system, state-wide, 2-way (standard and enhanced).

- MSFC operates a Government owned Motorola Smartnet Trunked Radio System. This radio system is digitally addressed and operates on 7 transmit and 7 receive radio frequencies in the 406 to 420 MHz. Government land mobile radio band and provides the following features:

- Automatically and dynamically allocates the 7 radio frequencies among users.
- Software driven features, which allow the configuration and reconfiguration of system resources to meet the users changing needs without the removal of any equipment from service.
- Central controller. Users are assigned a unique identification (ID). ID's may then be assigned to various talk groups.
- Each user has the ability to select operation within any talk group to which their ID has been assigned.
- Support 8000 individual ID's and 2000 talk groups.
- There are currently 576 hand-held radio units in use at MSFC consisting of the following models:
  - Motorola Type 2000, Model number HO1RDH9PW1BN
  - Motorola Type SABER Model number MODH99QY.
- 96 talk groups currently assigned.
- Security dispatcher has three desk units, two of which are used for dispatching, the other for reception and recording of transmissions.

♦ MSFC Emergency Operations Center (EOC)

The EOC Radio System has a desktop control unit that works in conjunction with the radio system described above. Capabilities include:

1. The capability to communicate with 32 MSFC organization Directors for emergency response and center management.
2. The capability to communicate with 32 MSFC organization Directors on a back-up radio system in the event of the failure of the trunking radio system.
3. The capability to communicate with all MSFC radio nets and talk groups.
4. The capability to communicate with individuals in a storm spotters network.

The trunking radio system is powered by a no-break system so that there should be no interruption of power except for storm damages.

The back-up radio net equipment is powered by the EOC no-break power system.

3.2.4.2 Michoud Assembly Facility (MAF)

The current MAF telephone switch is an EADS Northern Telecom PointSpan. This unit was installed in January 2003.

♦ EADS Northern Telecom PointSpan and its Database. 2,500 analog and 500 digital telephones. Equipment is located in Building 320-1 Switch Room.

♦ System supports 115 DID/DOD Local Dial Trunks.

- Compunetix switch and time clock for the Mission Support Room (MSR). Located in Building 101-2 the MSR Time Clock utilizes one T1 Circuit and the Switch utilizes one T1 Circuit with 24 voice channels tied in to the HOSC and there are currently 14 phones assigned.

- From MSFC, provide MAF Local Help Desk, a branch of the MSFC NISC, in the receiving of all trouble tickets at MAF related to Radios, Telephones, Cell Phones, Pagers, NASA Auditorium, NOAA and other systems we are responsible for from at MAF via the LM Operator and other points of contact.

- 15 miles of Inside/Outside Fiber Optic Cable and some 35 miles of Inside/Outside Copper Cable Plant.

- ISDN RAS Lines for Lockheed Martin LAN Group which consist of two ISDN PRI lines.

- Octel Overture 200 Voice Mail System and Database. 2,358 active mailboxes.

- Provide Ten (10) Power Failure Phones.

- Ericsson / M/A-Com Trunked Radio System located in Building 320-2 Radio Room. This system consists of repeaters, base stations, mobile radios, portable hand held radios, batteries, chargers, optimizers, programming, user assignments and coordinating repair work and preventive maintenance. There are currently 444 Radios and Base Stations in operation. Users consist of the following MAF Tenants: NASA, CSC, Lockheed Martin, and the United States Department of Agriculture (USDA).

- Antennas on the Radio Tower located near Building 320.

- Motorola VHF Base Station for the Harbor Master and five Hand Held Portable Radios located at the MAF Harbor.

- Building 320 Emergency Operations Center.

- National Oceanic & Atmospheric Administration (NOAA) Weather Satellite Dish/Receiver located in and outside Building 320 and three Printers.

- Procure and Maintain Cellular Phones (approximately 50 units).

- Procure and Maintain Leased Pagers. There are 9 Nationwide, 11 Alpha Numeric and 800 Digital Pagers.

ITEM	FY01 Total	FY02 Total	Comments
Telephone Systems			
Switches	9	6	1 MSFC, 1 MAF, 4 Russia
Instruments installed, MSFC	1223	955	
Instruments installed, MAF	347	134	
Instruments relocated, MSFC	4396	2112	
Instruments relocated, MAF	731	277	
Instruments disconnected, MSFC	726	1106	
Instruments disconnected, MAF	325	503	
IM's MSFC	50	49	
IM's MAF	18	18	
Asynchronous Data Service, MSFC	220	220	
Asynchronous Data Service, MAF	51	N/a	
S/W Voicemail MSFC	0	0	128 ports of VMX
S/W Voicemail MAF	0	0	48 ports of VMX
Switch Ports active MSFC	12178	12152	
Switch Ports active MAF	3327	2834	
System S/W upgrades (both)	None	None	
Trouble tickets (all comm. Services) MSFC	628	1343	
Trouble tickets (all comm. Services) MAF	165	798	
Operated Assisted Calls MSFC	6317	6277	
Operated Assisted Calls MAF	0	N/a	
Telephone Directory Assistance calls MSFC	70436	66625	
Telephone Directory Assistance calls MAF	0	N/a	
Directory assistance calls MSFC	70436	66625	
Directory assistance calls MAF	0	N/a	
Toll Validations MSFC	Not Tracked	Not Tracked	
Toll Validations MAF	0	N/a	
MSFC Overseas Calls	5594	4800	
MSFC 2683 Forms Processed	3938	1417	
MSFC Called in Changes	2585	3777	
MSFC Autodin/ Spacon Messages Sent	3232	3001	
MSFC Autodin/ Spacon Messages Received	6848	6201	
MSFC Faxes Sent	1057	764	
MSFC Faxes Received	3613	4651	
Distribute Tel Directory Externally MSFC	453	13	
Distribute Tel Directory Externally MAF	0	N/a	
Radios, Pagers, Cell Phones			
Radios MSFC	699	550	
Radios MAF	502	420	
Pagers MSFC	1696	1574	571 MSFC system(no-charge)
Pagers MAF	963	738	
Cell Phones MSFC	351	650	
Cell Phones MAF	31	34	
Communications			
Total data circuits installed, moved, or	4240	3234	

ITEM	FY01 Total	FY02 Total	Comments
worked on			
Inter-building data circuits	1,979	1878	
Engineering drawings maintained	7,320	7140	
New/Revised Drawings	302/1590	223/1601	
MSFC Communications Directory, Emergency Warning System (EWS), DR: 6.8.13, Updated once a year	253 pgs	261 pgs	

3.2.4.3 Other Services

A wide variety of services are provided that are necessary to allow the Center to open for business to include audio/visual infrastructure, asbestos, MSFC Cable Plant Services, and Central Distribution Center (CDC). Audio/Visual infrastructure includes conference room support providing LCD video projectors along with interactive whiteboards and room audio systems; special events providing and configuring audio/video equipment, such as public address systems, wireless microphones, video projection systems with screens, audio packages, and other equipment to meet specific customer needs; EWS distribution; cable television distribution systems; utility control systems; and fire surveillance systems (including the engineering, maintenance, implementation and operations of these systems). Asbestos services include all communications cabling support in asbestos-identified areas that support the telephone system, EWS, fire surveillance system, cable TV system, intercom systems, Marshall Access Control System, Video Marshall Access Control System, and data communications to the desktop. MSFC Cable Plant Services supports the outside cable plant support and all fiber optics support. CDC support includes video/satellite feed distribution, EWS distribution, and intercom system support. This service is also intended to include the upgrade of the MSFC Communications Infrastructure including voice, video, and data. The MSFC Cable Television Distribution (includes televisions and video cassette recorders), overhead paging, EWS Distribution, and intercom services.

The contractor schedules conference facilities located in Buildings 4200 and 4203. The conference rooms in 4200 are Morris Auditorium, P106, P110, and 815; conference room 1201 in Building 4201; and operates the facilities, including the audio/visual equipment.

MSFC Cable Plant Services supports all outside cable plant media and all fiber optic media support. This includes all installation and maintenance support along with field location support. MSFC has 31,728 circuit miles of copper and 5,240 circuit miles of fiber cable in its Cable Plant System. The underground distribution system serving the cable plant is comprised of 244 manholes and 27 miles of ductbank and serves 107 MSFC Buildings.

The Asbestos Crew installs various types of wiring (data (Marshall Institutional, Marshall's new LAN Infrastructure, and NASANet), telephone, etc.) in

buildings that contain asbestos fibers. The Asbestos Crew is required to undergo annual training to certify ability to work with asbestos.

The Emergency Warning System (EWS) at MSFC is an interactive audio system that provides prerecorded or live announcements to all MSFC facilities, on site and off site, to warn personnel of potential threats to safety. The system is capable of live, recorded and prerecorded announcements, repetitive playback of recorded and prerecorded announcements, and automatic, computerized testing of the entire system from the microphones to the loudspeakers. The system is adjusted to detect any individual loudspeaker failure and can be remotely activated, operated, and programmed from any microphone station or any designated telephone. In case of system failure, the central system contains a bypass capability that reverts to a simplified system capable of one-zone paging.

The system is divided into three sections: one is the onsite internal EWS, the external on site EWS, and the auxiliary, off site, building paging system. The internal EWS provides announcement coverage in all occupied, on site, MSFC buildings. There are approximately 350 internal EWS power amplifiers with respective batteries and feedback modules. The external EWS provides all, on site, external announcements. There are nine external locations including 35 amplifiers with respective batteries and feedback modules, located throughout the center. Individual twisted pairs on the MSFC cable plant, provide connection to and from the distribution and monitoring systems in 4207 and each power amplifier feedback device. These pairs are used to provide path for announcements to be amplified on the loudspeakers and monitoring operational status of the system. Five off site location building paging systems can also be accessed via a conferencing system that permit simultaneous live announcements with the EWS Main announcement system.

The Marshall Access Control System (MACS) is a network of card reader entry systems located throughout the MSFC campus supporting the MSFC Protective Services Group. Monitoring of access control data is accomplished through NASA Protective Services through an onsite contractor. The contractor supports the system by providing Intrabuilding connectivity, installation and maintenance support for all hardware and software systems. Over 549 card readers in 66 buildings are supported along with card readers for 13 Vehicle gates and 11 pedestrian turnstiles.

The Video Marshall Access Control System (VMACS) is a network of security and surveillance cameras located throughout the MSFC campus supporting the MSFC Protective Services Group. Monitoring of camera feeds is accomplished through NASA Protective Services through an onsite contractor. The contractor supports the system by providing Intrabuilding connectivity, installation and maintenance support for all hardware and software systems. Currently 64 cameras in 20 buildings are supported.

The Fire Surveillance System (FSS) provides Fire Alarm monitoring services to all MSFC Buildings. The system is operated through NASA Facilities by an on site contractor. The contractor provides all the hardware required to operate and maintain the

system. Intra-building connectivity is provided via the MSFC Cable Plant. The topology is a star configuration but in a logical ring connected through the MSFC Cable Plant.

The MSFC Utility Control System (UCS) monitors MSFC Building heating, ventilation, air conditioning (HVAC) systems. The system control center is located in MSFC Building 4250. and is contractor operated for NASA. The contractor supports the system by providing Intra-building connectivity and maintenance via the MSFC Cable Plant. The Facilities contractor provides all the modems for the system. The topology is a star configuration with all circuits feeding into MSFC Building 4250.

The MSFC Central Distribution Center (CDC) is the focal point for all audio/video, intercom, fiber, and local data circuits in and out of the MSFC campus and also between most buildings. Main and intermediate distributions frames support EWS, Center Wide Distribution (cable TV system) and Television Studio distribution functions including downlinks/uplinks. Satellite receiver equipment and intercom systems also terminate in this area.

3.2.5 IT Security Services

The Information Technology (IT) Security Risk Management Team supports the CIO by providing resources to assist MSFC with IT risk assessments and IT security planning. The Risk Management Team is required to provide the following services:

a. Provide center-wide assistance to IT resource owners for risk assessments and security planning based on NPG 2810 “Security of Information Technology”. As of March 2003, there are 277 IT resources that require assessments and plans that must be updated at least every three years, or upon a significant change. An IT resource can be a major computer application or one or more computers functioning to provide a service. The Risk Management Team is responsible for facilitating risk assessments and assisting resource owners compose security plans that are compliant with NPG 2810.
b. Conduct center-wide, regularly scheduled and emergency vulnerability scans. MSFC uses Internet Scanner by Internet Security Systems, Inc., to conduct quarterly scans to gather metrics for HQ. Internet Scanner is also used frequently to scan the MSFC internet for computers with vulnerabilities similar to ones reported to be exploited in attacks upon other NASA, or industry computers. For computers with significant vulnerabilities, the Risk Management Team is responsible for identifying the system administrator for the computer and providing information and assistance in eliminating the vulnerability. For the regularly scheduled second quarter FY01 scan, 77,000 IP addresses were scanned, 9,400 had computers connected, of which 1,000 required notification of vulnerabilities and possible assistance from the Risk Management Team.
c. Timely distribution of computer security alerts and bulletins to IT resource owners and system administrators with follow-up to status implementation of recommended vulnerability mitigation techniques. Based on

organizational intelligence obtained via the risk assessment and planning activities, the Risk Management Team must target the distribution of alerts and bulletins. The Risk Management Team must verify that suggested safeguards are implemented.

d. Interface with other IT Security components including Intrusion Detection, Firewalls, Public Key Infrastructure, Computer Security Officials, the IT Security Manger, and IT Security vendors. The Risk Management Team will interface regularly with other key IT Security personnel to ensure a tightly integrated overall preventative posture and to ensure MSFC is utilizing current, state-of-the-art safeguards.

Projections for proactive and reactive protection of MSFC's IT resources are accomplished by the contractor. These are accomplished via integrated Risk Assessments, Firewalls, Intrusion Detection, Incident Response, and Security Engineering teaming arrangements.

The firewall team maintains, configures, and operates seven sets of firewalls. One set consists of 2 firewalls – one for primary and one for backup. The following sets are maintained:

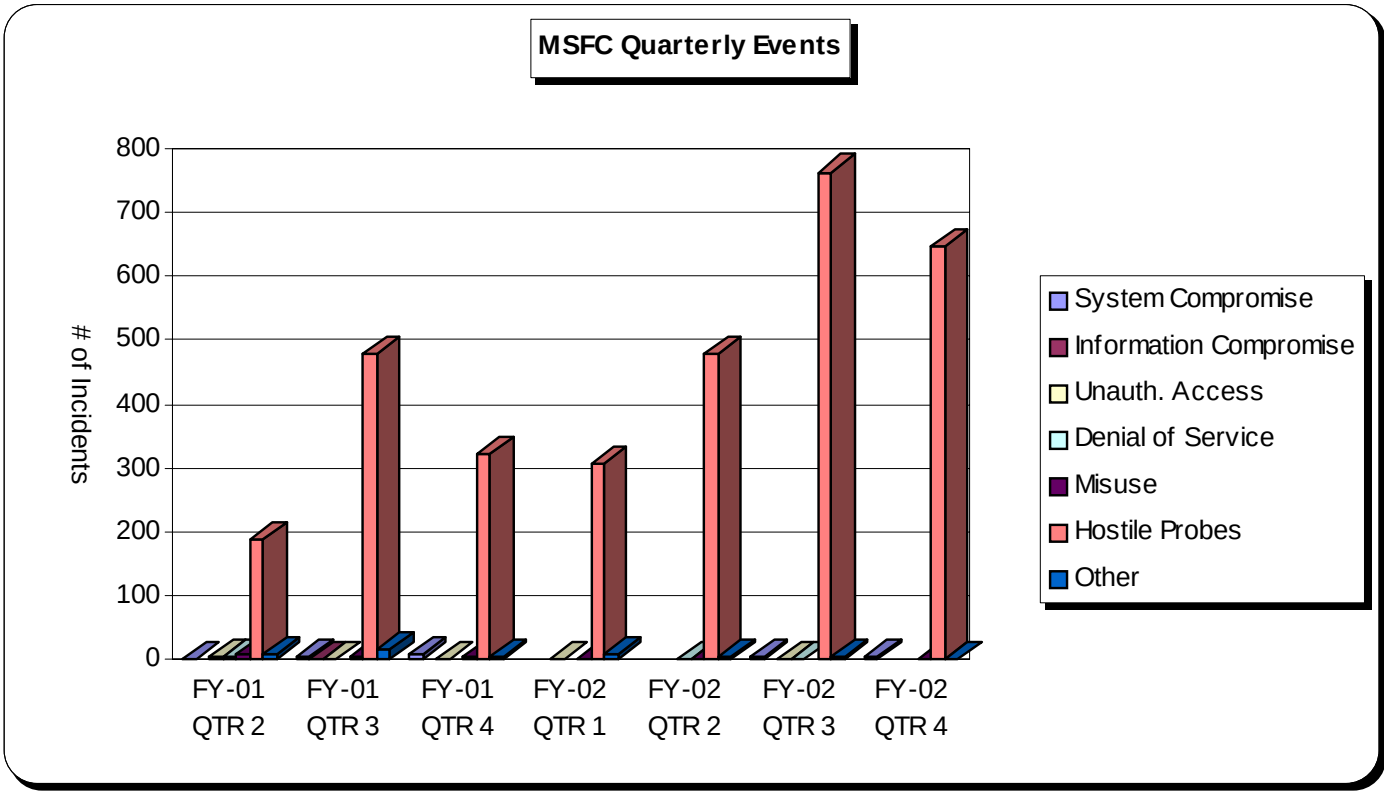
1. MSFC public network set
2. MSFC private network set
3. NSSTC public set (see section 3.2.8)
4. NSSTC private set
5. NSSTC visitor network (single firewall)
6. IFMP set
7. NACC set

The Private Network Firewalls screen data destined for the network for the desktop users at MSFC. The Public Network Firewalls screen data both to and from servers whose primary function is to service external users. Checkpoint/Nokia and Cisco products are used for these firewalls.

The contractor supports activities to provide early warnings and detection of intrusions into MSFC's services network. This support is provided through the analysis of network traffic and key signatures, and provided the response mechanisms to contain, analyze, and report the incident in a timely manner to the appropriate parties.

PrISMS also provided technical support for the NASA PKI infrastructure. The NASA PKI infrastructure was developed for the Agency at Ames Research Center. The Certificate Authority is Entrust-based, and has been cross-certified to the Federal Bridge. PrISMS maintains the backup CA server at MSFC, ensures timely Certificate Revocation List updates to the NASA X.500 database, and provides technical support for the computers used by MSFC's Registration Authorities (RA's).

PrISMS provides technical, administrative, and engineering support for 2 factor authentication services. The current product in use is the RSA SecurID® token infrastructure, including token form processing, distribution, system administration, operations, and maintenance of the ACE server and accounts.



3.2.6 Documentation Repository Services

The Documentation Repository is a consolidated documentation services center at MSFC for receiving, managing, storing, and distributing officially released engineering drawings, associated technical documentation, and standardization documentation. The Repository provides documentation management and document imaging services. It serves as the mandated recipient for all technical documentation furnished under MSFC contracts as well as technical documentation furnished under other NASA contracts that is needed by MSFC engineers and managers. The Repository also provides a full range of development, system administration, and support for several Center-wide information management applications and knowledge management development initiatives.

The contractor uses a content management system (Documentum), integrated peripheral systems, and databases (primarily Oracle) to provide documentation management, conversion of documentation to and from electronic formats, and exchange of electronic documentation with users via web browser and named user access methods,

including secure transmission. Responsibilities include the following major categories of services:

a. Documentation Management (receive, index, store, distribute);
b. Digital Document Creation (scan, document conversion including digital creation, compact disc recording, etc.);
c. Center-wide Systems Support (MSFC Directives System master list, review process and Directives Control Board support; Marshall Technical Report Server development and maintenance; Electronic Forms design/test and master list; Records Management (records staging area maintenance, evaluation, rescheduling, and records disposition support to MSFC Records Manager and record owners); and
d. Tailored program/project electronic document services using Repository systems, as appropriate.

Future trends for the Repository require it to remain aligned with Center and Agency objectives of implementing sophisticated methods of electronic document and content management in support of knowledge management initiatives. This includes appropriate hardware and software to improve the methods by which information is organized, preserved, and made accessible to customers. These trends will require the merging of information science expertise and newly developed or emerging information resource management standards/practices such as taxonomy development, XML schema development, electronic records archiving standards, and integration into other e-government initiatives.

The Repository maintains documentation in electronic as well as paper format. Legacy microfilm media is received and maintained, although wet film processing is no longer used in Repository operations. At the end of fiscal year 2002 the Repository held 450,633 digital documents and drawings, and a total of 748,201 documents electronically indexed.

The Repository provides a broad and varied range of information and documentation management services. The following list includes some of the major workload indicators for FY 2001 and FY2002:

	FY2001		**FY2002**	
Input & Output:		JCP units*		JCP units*
Received (Documents)	18,271	499,360	13,664	373,194
Output (Documents)	92,029	2,032,447	332,293	8,322,519
Total Work Orders	7,132		11,520	
Total Recipients	18,678		17,987	
Aperture Cards Received	24,259		12,181	
Aperture Cards Distributed	10,850		0	
Aperture Cards Produced	4,569		0	
Scanning Units:				

Documents & drawings		224,363	19,484	540,710
Scanning for CD-ROM		186,258	19,476	208,168
CD-ROMs Produced:				
Masters Created	280		627	
Duplicates	274		1,244	
Forms:				
Active Forms in System:	664		632	
New or Revised:	~73		151	
Directives:				
Active Directives in System:	187		196	
New or Revised	100		25	
Organizational Issuances (OIs) in System	42		108	
OI Master List Custodian Records	59		59	
Records:				
Transferred into Staging Area (cubic feet)	568		579	
Transferred out (cubic feet)	115		324	
Destroyed (cubic feet)	271		270	
Entries in Database	18,978		21,499	
MSFC Technical Report Server:				
Total Reports	596		479	
Reports Added	33		20	

*JCP Unit – a unit of measure equivalent to 8.5x11 inch paper, established by U.S. Congress, Joint Committee on Printing

3.2.7 Audio Visual Information Services

Multimedia Services includes the following primary services—Imaging, Television, Multimedia, GraphicsPublications, and Reproduction. Imaging Services includes traditional photography, digital imaging and photography, engineering photography, photographic printing, and archiving and image retrieval. Television Services includes video production, live television, and special event productions. Multimedia services includes animation and interactive media creation. Graphics Services includes physical and electronic graphic and publication content creation. Reproduction Services includes traditional copying services and Government Printing Office functions. Each service is detailed below.

3.2.7.1 Imaging Services

Marshall Imaging Services provides a wide range of services, from Still Documentation, Portraits and Special Events Photography, Photographic Laboratory Services, Conference Room Support, and Video Test Support, that includes exhaustive

documentation of lab or field-testing to official NASA personnel photos and high-quality digital images for distribution to news media, and public outreach. Still photographers, as well as videographers, document many of the technology research elements, significant testing milestones, and hardware studies conducted at NASA Marshall. This documentation is in the form of engineering, high-speed motion picture, and digital photography.

Imaging services provide still, digital, or motion picture documentation of center-wide events that would be considered significant or historical to the majority of the Center. Examples include the Center Director Address in Morris Auditorium, space flight events, Space Shuttle events, and other historical events. It also provides print or digital duplication of these events and document images in the still image library. Augmented: This service provides NASA clients with imaging services (digital, motion picture, or still film) that are outside of the basic service definition.

The high-speed film group uses sophisticated cameras and lenses to document engine and materials tests. Cameras capable of recording up to 10,000 frames per second are used in order to capture extremely small periods of time necessary in engine test analysis. All of the film shot during these complex tests is currently outsourced to outside vendors.

3.2.7.1.1 Photo Lab

Marshall Space Flight Center's Photo Lab has made excellent progress in meeting NASA's challenge to transition to an all-digital process. As we identify new digital technologies that can take the place of high-speed film documentation and find a practical alternative to chemical print processing, we will quickly close in on the 100% "dry" mark of December 2004.

The Marshall Space Flight Center Imaging Services Photographic Laboratory (Photo Lab) is a highly specialized facility that is meeting the unique Imaging and High Speed Film requirements of the Marshall Space Flight Center. It is a full service photographic production lab, which provides a cost effective method to meet the Still and Motion Picture needs of the Marshall Space Flight Center.

Photographers record on still and motion picture film every aspect of the research and development, engineering testing, special events, VIP tours and awards presentations that occur at the center. Photographers also are required to travel to other NASA Centers to provide Imaging Services, such as the documentation of Shuttle Launches and Space Flight Honoree events at KSC, or engine testing at Stennis Space Center in support of MSFC's mission. High quality "Outreach" images are produced primarily for public relations web sites and the Media Office.

The Photo Lab provides digital photo production including image enhancement and electronic distribution. Photographs are printed from 35 mm negatives and digital formats. Print sizes range from 3x5 inches up to 8x10 inches.

FY02 Workload Statistics	
Imaging Work Order Metrics	
Total Work Requests	22,280
Still Photo Requests	1,617
Lab Production	2,370
Test Area Support	201
Lab Production Breakout of Requirements	
Total Prints	54,000
Digital Prints, Slides, Viewgraphs	1,730
Rolls Motion Picture Film Processed	130
Exposed Rolls Film Processed	1,410
Still Photo Breakout of Requirements	
Total Work Requests	1,617
Portraits	
Outreach	
Special Events	63
Documentation	

Transition of all digital photographic processes at Marshall began approximately twelve months ago. Steady progress has been made in all areas including image capture, production and distribution. Transition to digital is 98% complete.

3.2.7.1.2 Still Documentation, Portraits and Special Events

The changeover from film to digital cameras is nearly complete. All 35mm film cameras have been replaced with two and six mega-pixel Nikon SLR cameras. Purchase of additional higher-end digital cameras has just been approved and will soon provide each photographer with needed backup equipment and allow them to create larger image files, permitting greater print enlargement with less loss of quality.

On a very limited basis, film is still being shot using medium format cameras. Assignments that dictate a very large output size (up to 30X40 inches), for quality considerations, are still being shot on film and then processed and printed off-site. Plans for future equipment acquisition include a medium format digital camera back to permit this type of work to be done digitally.

The only other occasion where film is routinely being used is for the Space Flight Awareness program. In documenting the launch activities of these NASA honorees, film is still the preference of the SFA committee. Processing is done off-site. Transition to digital processes for this event is anticipated in the near future.

3.2.7.1.3 Video Test Support

The contractor operates video and recorder equipment in support to test stand activities. The video equipment supporting these activities are provided via a

combination of fixed installations with various configuration combinations and with setup/breakdown coverage's dependent upon the scope of the test. In FY-02, the contractor supported 974 tests with an average duration of 1minutes per test.

FY02 Workload Statistics	
Total Work Requests	2,401
Still Photo Requests	1,220
Lab Production	57,270
Test Area Support	262

3.2.7.1.4 High-Speed Documentation

Due to its mission critical status, high-speed motion picture film documentation is still in operation. Both 16mm and 70mm cameras are used to capture on film the time-critical tests that are a daily occurrence here at Marshall. These films continue to be processed on-site since there is no off-site facility available within close proximity to the center, necessary for the short turn-around times required. To date, we have found no viable digital alternative to this process. We continue to research the technology as it makes improvements in hopes of eventually finding a digital process that can match or even surpass the quality of film.

Wet processors still currently in operation to support high-speed documentation:

Lipsner-Smith Film Cleaner (16mm)

3.2.7.2 Marshall Image Exchange (MiX) Support and Visual Aids Library

The MiX website is an extension of the agency-wide NASA Image Exchange (NiX) program. The MiX website provides NASA-wide patrons and the public with an archive of selected images and captions of NASA'S past, present, and future programs/projects managed by Marshall Space Flight Center (MSFC). The MiX team is responsible for:

a. Scanning images for displaying on the MiX website in accordance with NiX guidelines.
b. Researching and developing captions for images, including interfacing with NASA/MSFC program/project personnel.
c. Designing the website***.**
d. Upgrading software for present systems***.**
e. Researching and writing proposals for Scientific and Technical Information (STI) grants from NASA Headquarters to improve/enhance the capabilities and functionality of the MiX website and ensure that it is compatible with NiX and image websites at other NASA centers***.**

*****Staffing and hours for these responsibilities are covered under the Background and Historical section for Web Services. In FY01 and FY02, a civil servant

devoted about 75 percent of the time to performing the MiX Lead Writer responsibilities. However, beginning in FY03, Lead Writer services will be performed by the contractor.

The MSFC Visual Aids Library is a photographic collection that contained approximately 8,800 photographs of NASA/MSFC past, present, and future programs/projects in FY01 and 15,117 photographs in FY02. In FY01 and FY02, the library was maintained by a civil service employee and devoted about 25 percent of the time to this function.

In FY01, 1,018 images and captions from the MSFC Visual Aids Library and 300 from the Microgravity Research Program were scanned, written, and submitted to the MiX website. As of the end of FY01, the MiX website contained 2,118 images and captions. In FY02, 359 images and captions from the MSFC Visual Aids Library and 1 from the Microgravity Research Program were scanned, written, and submitted to the MiX website. As of the end of FY02, the MiX website contained 2,480 images and captions.

Each fiscal year, approximately 200 images and captions relating to the Microgravity Research Program Office and 300 images and captions of MSFC's other current and future programs/projects are scheduled to be added to the MiX website. The Microgravity Research Program will provide the manpower for writing and inputting its captions in the MiX website, but the Digital Image Technician will be responsible for scanning and placing the images on the MiX Archive Server for displaying on the MiX website.

The existing photographs in the MSFC Visual Aids Library will be maintained as reference material, but no photographs will be added to the Library. Beginning in FY03, the contractor will assume this responsibility.

To date, a total of 46 GB of server space is being utilized for the mix image archive. Based on the current storage technology, approximately 100 GB of additional server space will be required for the duration of the contract.

3.2.7.3 Production and Distribution

The conventional film processing/printing darkroom no longer exists at Marshall. Now that 98% of staff-produced photographs are done using digital cameras, the "digital darkroom" has taken the place of the conventional one using enlargers, paper and chemicals. Digital files are downloaded to computers directly from the camera's memory card. They are then acquired, numbered and captioned by the photographer, and then handed off to a digital lab technician to "PhotoShop" the image if needed. The image files are proofed and printed (up to 10x15 inches) on the Fuji Frontier 350 processor, which although technically a wet process, uses little chemistry and produces virtually no waste. All prints larger than 10x15 inches are printed on a recently acquired Epson 9600 wide-format ink-jet printer. Print size limitations on this printer are 44 inches x 100 feet, however we anticipate little call for sizes greater than 30x40 inches. These following products are currently outsourced to a local vendor.

a. Transparencies and color slides.
b. Copy negative processing.
c. Film processing - 16mm, 35 mm, 120 mm.

Archived negatives are scanned and printed in the same way. No original negatives are ever taken off-site.

We are currently exploring various "dry" alternatives to the Fuji 350 print processor. We have invited vendors from Epson, Hewlett-Packard and Xerox to demonstrate their ink-jet, dye-sub and dry toner technologies as a possible substitute. Recent trips to digital workshops and tradeshows, and an upcoming trip to PMA (Photo Marketing Association) convention in March will all help to further identify potential alternative solutions to the problem. We will need to find a process that produces prints quickly, economically and without sacrificing quality or durability.

Digital printers that will replace the Fuji chemical processor will need to be added to the network as the output devices. Presently, the Fuji 350 and Epson 9600 are stand-alone devices. Files have to be physically brought to the machine via CDs, zips and flash cards. This slows down the process and creates bottlenecks when more than one lab tech needs access to the machine at the same time.

A complete assessment of chemical stocks has been completed. All chemicals, photographic paper and other materials no longer needed, have been disposed of according to hazardous chemical waste guidelines. The sub-store has been notified to reclassify items no longer required as reorder exempt or excessed.

A review of all "wet" photographic processing equipment has been made to determine what equipment will continue to be utilized, what will be mothballed for possible future use, and what equipment will be excessed. Mothballed items will be retained but drained of chemistry and deactivated. Excessed items are currently in the process of being retagged and removed from the facility by property management.

The building, which houses the Photo Lab (Building 4353), has been upgraded to a 100base-T. This was completed in FY01.

3.2.7.4 Television Services and Multimedia Services

This service category includes television and other multimedia services, which provide documentation of center-wide events that would be considered significant or historical to the large majority of the Center. Examples include the Center Director Address in Morris Auditorium and other historical events. This service provides duplication of these events. In addition, it provides playback and basic documentation coverage of Space Shuttle mission events from the Huntsville Operations Support Center (HOSC). It also provides playbacks via center-wide television of videotapes of significance to the Center. Customers may also request specialized support. This service is also intended to include the following: Operate the existing studio, prepare and

distribute productions, develop and broadcast quality video products, maintain music libraries, motion picture photographic library, tape library and archives, produce, distribute and record live presentations, ceremonies, programs, and other special events, provide closed circuit television, provide remote Closed Circuit television (CCTV), recording and archiving in support of MSFC research and development testing. Activities include planning, engineering, operations and maintenance.

The contractor provides labor, material and other support required for the total operation of MSFC's Television Services equipment, distribution systems, and studio. Specifically, the contractor:

a. Televises, transmits, and records live presentations, ceremonies, and other special events.
b. Plans, develops, script-writes and edits, interviews, presents, and executes broadcast quality video materials.
c. Receives and distributes NASA TV Select television broadcasts.
d. Uplinks MSFC video to the NASA TV Select television network.
e. Operates and maintains the equipment in the Building 4207 studio.
f. Operates a multi-format recording and duplication facility including but limited to VHS, Beta SP, DVCAM, DVD, CD, DVC Pro and SHVS.
g. Operates full broadcast audio production facility.

3.2.7.4.1 Animation and Interactive Multimedia Services

Animation and Interactive Multimedia Services personnel are responsible for putting together many of the animations, presentations, other multimedia products distributed on CD-ROM or DVD to our contractors and research partners in industry and academia, to government leaders or to the public.

The Graphic and Artistic presentations of Scientific and Engineering mission opportunities are often extremely complicated, and beyond the average experiences of the targeted audience. These ideas demand descriptive illustrations, models, animated simulations, and interactive experiences recorded on compact disks, or digital video disks for play-pack by the customer, and often serve as hands-on, real-time guides to the performance of tasks on the Space Shuttle and the International Space Station, as well as in the ground-based labs.

Production of animation and interactive multimedia requires planning (pre-production), content production, and final production.

Pre Production—Consists of:

1. Project outline
2. Working Script
3. Storyboard
4. Shooting plan
5. Shooting schedule

Production -- consists of:

1. Artistic backgrounds and texture maps
2. Model design and construction
3. Set design
4. Camera set up and motion plan
5. Lighting set –up
6. Motion Path and or key-framing the required action
7. Creating the wire frame animation and/or the animatic

Post Production -- consists of:

1. Reviewing the rendered animatic
2. Assessing the success or failure of each take and each scene
3. Editing the scenes together into a video addressing the incorporation of the special effects into the live shot scenes.
4. Adding special effects that help to dissolve each scene into other scenes as the production requires.
5. Reviewing the daylies with the customer and making the necessary adjustments.
6. Presenting the Final Cut to the Audio/Visual Review Board.

Tools employed in the creation of animation and interactive multimedia include Macintosh and PC computers equipped with software including Lightwave 3D, Maya, Soft Image, Final Cut Pro, DVD Studio Pro, and similar packages. The contractor has an IDIQ contract with an off-site provider for surge capacity in this area.

3.2.7.4.2 Television/Multimedia Metrics

Multimedia Services personnel are responsible for putting together many of the animations, presentations, interviews and other multimedia products you've seen broadcast on NASA TV, or distributed on CD-ROM to our contractors and research partners in industry and academia, to government leaders or to the public.

FY02 Workload Statistics	
Total Work Requests	838
Non-Productions*	643
Video Files	25
Multimedia Projects	72
Special Events	48
Live Shots	14
Video Productions	27
Special Projects	3
Ongoing support such as POC	6

*Documentation of events, mission recording, dubs, playbacks, etc.

3.2.7.4.3 Special Events Productions

Special events include: Center Director All Hands meetings, crew visits, offsite remote productions such as Moon Buggy or CAMEX Media Relations support. Approximately, 291 total hours per event are required.

Approximate Hours	
Graphics	32
Editing	64
Shooting	40
Studio Prep	5
Dubbing	10
Writing	65
Planning	15
Producing	60

3.2.7.4.4 CD ROM Production Hours

CD ROM productions provide user-friendly information on NASA projects to the general public, educators, schools, and other target audiences. Approximately, 691 hours per production are required. Tasks include:

a. Labeling/Distribution
b. CD ROM Recording
c. Audio/Video Production
d. Meetings and Design

3.2.7.4.5 Live Shot Hours

Each live shot event provides 14 – 18 live interviews with Marshall science experts for television stations across the country. Approximately, 109 hours per production are required. Tasks include:

a. Marketing
b. Producing
c. Editing
d. Director
e. Shooting
f. Requirements/Planning

3.2.7.4.6 Video Production Hours

Video productions are fully scripted and voiced productions, which provide information on a variety of NASA related topics including Microgravity, Propulsion, Space Flight, Test Stand Safety, and other science and education programs. Approximately, 409 hours per production are required.

Approximate Hours	
Animation	30
Editing	60
Graphics	40
Director	50
Producer	44
Shooting	120
Script Revisions	25
Script Development	40

3.2.7.5 Special Events Coordination Services

Marshall Space Flight Center supports a wide variety of Special Events that require a Special Events Coordinator (SEC). The SEC is the lead contact for all of Center Operations Directorate (CO) resources when more than one resource is required for an event. When a service request is submitted requiring more than one CO service, the SEC contacts the customer to gather specific information and completes an Event Checklist that outlines the requirements for the event. The SEC works between the customer, service providers, and external organizations to identify specific details needed to support the event, updating event requirements as needed while keeping the service providers and customer informed. The SEC finalizes the requirements and a budget is prepared based on the Event Checklist. This budget is submitted to the customer for approval and funding. If any changes are negotiated at the last minute, the SEC notifies the service provider and appropriate external organizations, then the cost estimates are revised accordingly. The SEC along with Safety and the customer perform a site inspection of event set-up with any adjustments incorporated based on the site inspection. The Event takes place with the SEC interfacing with service providers and customer as the event unfolds to ensure delivery of services. A post-event continuous improvement customer survey is sent to the customer within 2 days after the event. This survey requests feedback on the quality of services provided by CO. This feedback is shared with the service providers and if negative feedback is received from a customer, procedures in MWI 1280.2, Customer Satisfaction, will be followed. In FY02, 214 Special Events were supported.

EVENT TITLE	**# of Annual Events**
2002 GREAT MOONBUGGY RACE	1
2002 NASA MATERIALS SCIENCE CONFERENCE	1
2002 PRINTING & COPYING INFORMATION MANAGERS MTG	1
48TH CONVENTION-CHILDREN OF THE CONFEDERACY	1
A&M HIGH SCHOOL SENIOR DAY	1
ACOUSTIC EMISSION TRAINING	1
ADMINISTATIVE OFFICER'S OFFSITE	1
ADVENTURES IN ENGINEERING	1
ART EXHIBIT	1
ASIAN PACIFIC AMERICAN HERITAGE MONTH CELEBRATION	1

EVENT TITLE	# of Annual Events
AWARDS CEREMONIES	1
BALLET CONCIERTO DE PUERTO RICO	1
BETH PARTAIN RETIREMENT FAREWELL	1
BLACK HISTORY MONTH CLOSING CEREMONIES	1
BLACK HISTORY MONTH LEADERSHIP FORUM	1
BOTANICAL GARDENS/ MURRAY HAL	1
BUSINESS EXPO AT CIVIC CENTER	1
CAER ALL HANDS AT BOTANICAL GARDEN	1
CAER CLASS	1
CAER TRAINING	1
CENTERWIDE AUTHOR TO SPEAK	1
CFO ALL HANDS AND AWARDS DAY	1
CMM	1
CO AWARDS CEREMONY	1
CO-OP LUNCHEON	1
COBRA MAIN ENGINE RESULTS	1
COBRA TRAINING	1
CONFERENCES/WORKSHOPS: TRAINING	1
CUSTOM SPECIAL EVENT SERVICES/2ND GEN. EVENT	1
EARTH TO ORBIT SYMPOSIUM	1
ED AWARDS CEREMONY	1
ED AWARDS PICNIC	1
ED PICNIC	1
ED40 STRATEGIC PLANNING	1
EMPLOYEE HEALTH WALK	1
EMPLOYEE RESUME TRAINING	1
ENGINEERING CONFERENCE/WORKSHOP	1
EQUAL OPPORTUNITY-HISPANIC HERITAGE	2
EXECUTIVE MEDIA TRAINING	1
FAMILY FUN DAY PICNIC	1
FD ALL HANDS MEETING	1
FD ALL HANDS QUARTERLY SAFETY MEETING	1
FD CHILI CHALLENGE	1
FIRST ROBOTICS KICK-OFF MEETING	1
FIRST ROBOTICS MEDIA DAY	1
FLIGHT PROJECTS EQUIPMENT RENTAL	1
GEORGIA TECH ALUMNI ASSOCIATION	1
GSA AUCTION	2
HGTV DEMO	1
HIGH PRESSURE SYSTEM SAFETY	1
HONEYCOMB SANDWICH STRUCTURES	1

EVENT TITLE	# of Annual Events
HUNTSVILLE AREA COMMITTEE ON EMPLOYMENT OF PEOPLE	1
IFM CORE FINANCIAL PROJECT COMMUNICATION	1
INFORMATION SERVICES SYSTEMS REQUIREMENT	1
INTERNATIONAL SPACE CAMP –TEACHER OF YEAR AWARDS	1
ISO 9000 LEAD AUDITORS TRAINING	3
ISS FLY-OVER PARTY	1
LEADERSHIP DEVELOPMENT PILOT SESSION III	2
LOWERY LECTURE	1
MEDIA RELATIONS OFFSITE	1
MEETING RECORDING	1
MINORITY & WOMAN-OWNED BUSINESS EXPO	1
MOBILE CRANE SAFETY CLASS	1
MSFC CO-OP STUDENT OFF-SITE	1
MSFC RETIREE DINNER	1
NACC PROJECT TEAM MEETING	1
NASA GOES TO THE STARS	1
NISN CUSTOMER FORUM	1
OBSERVANCE OF SEPT 11TH EVENTS	1
OFFSITE/TEAM BULIDING: MANAGERS/ORGANIZATIONAL/TRAINING	3
OPERATIONS DATA FILE CONTROL BOARD FACE TO FACE	1
ORGANIZATIONAL AWARDS CEREMONY	1
PAYLOAD OPERATIONS AWARDS	1
PROCUREMENT ALL-HANDS/AWARDS/ TRAINING	4
PROFESSIONAL DEVELOPMENT PROGRAM	1
PROGRAM PROJECT ANALYSIS	1
PROJECTION SCREENS FOR HOSC	1
PTG MANAGERS MEETING 2002	1
RADIOGRAPHY LEVEL II	1
RECOGNITION AND AWARDS STUDY TEAM	1
RESENTATION BY SHUTTLE INTEGRATION OFFICE	1
RS83 PROPULSION GROUP (OFFSITE)	1
RSRM DOUBLHEAD	1
S&MA CORE STRATEGY TEAMS IV	1
SAFETY BOWL SEMI FINALS/ SAFETY DAY 2001/ SAFETY MONTH-SAFETY LANE	3
SANDRA DICKERSON RETIREMENT PARTY	1
SEI DEPARTMENT REQUIREMENTS GROUP	1
SEI RISK MANAGEMENT GROUP	1
SEI WORKSHOP FOLLOW-UP	1
SHUTTLE MANAGER'S OFFSITE	1

EVENT TITLE	# of Annual Events
SHUTTLE MOTIVATIONAL OFFSITE	1
SHUTTLE OUTREACH TO SCHOOLS	1
SLI AGENCY PROGRAM-ATLANTA MARRIOTT/ ALL HANDS/ FLIGHT DEMO WORKSHOP/MEETING/ WORKSHOP/ COLLEGE FLIGHT	9
SOFTWARE TRAINING CLASS	1
SOURCE EVALUATION BOARD CONFERENCE	1
SPACE TRANSPORTATION	5
STAR-HERMAN OBERTH AWARD RECIPIENT	1
STUDENT LAUNCH INITIATIVE	6
SUCCESSFUL TEAMING	1
SUMMER INTERN PICNIC	1
SUMMER STUDENT WORKSHOP	1
SVERDRUP-MSFC-PICNIC	1
SYSTEM DESIGN- CLASS	1
SYSTEMS ENGINEERING SEI DEPT	1
TAKE CHILDREN TO WORK DAY	1
TD ALL HANDS	2
TEAMBUILDING TRAINING	2
TECHNOLOGY TRANSFER DRAG REDUCTION	1
TECHNOLOGY TRANSFER MINORITY WOMEN-OWNED BUSINESS EXPO	1
TEST STAND 500 AWARD CEREMONY	1
TUSKEGEE UNIVERSITY VISIT	1
ULTRASONICS LEVEL II & III TESTING	1
VETERANS DAY PARADE	1
VIDEO DOCUMENTATION	2
VON BRAUN FORUM	3
AIAA E-TEAMS	1
CENTER DIRECTOR ALL HANDS MEETING	19
COMBINED FEDERAL CAMPAIGN (CFC)	2
CW MISC/EASTER EGG HUNT	1
CW-MISC/ISO 9001 CERTIFICATION PICNIC	1
EARTH DAY 2002	1
MARSHALL MANAGEMENT ASSOCIATION	1
MSFC HOLIDAY RECEPTION	1
NASA RETIREE DINNER	1
NASA/MSFC ANNUAL HONORS AWARDS DAY	1
PROTOCOL	30
SNOOPY AWARDS	2

3.2.7.6 Graphics/Publication Services

The contractor provides labor, material, and other support for the creation, assembly, and distribution of MSFC's graphics/publications services and products. The contractor provides services for the following type products adhering to all applicable NASA/MSFC procedural and regulatory guidance and Government Printing Office (GPO) requirements:

a. Animation (designs and produces 2D and 3D types of animation for various applications such as web sites, input into video, and multimedia presentations).
b. Brochures, Newsletters, Fact Sheets (writes, edits, proofs, designs, and produces informational brochures for MSFC projects and programs).
c. Certificate designs and templates of preprinted certificates in pdf format.
d. Illustrations (designs and produces charts, graphs, tables, and graphic representations of written material or ideas).
e. Technical Illustrations (designs and produces engineering, orthographic, schematic, cutaways, exploded views, perspective, etc. drawings).
f. Publications (writes, edits, proofs, designs, and produces graphic illustrations, charts, mathematical equations, graphs, tables, publication layouts, covers, etc. for the following products:
    1. Management Publications – Annual publications such as the MSFC Strategic Implementation Plan, the Center Director's Discretionary Fund Annual Report, and other periodic full-color marketing, educational, and informational publications.
    2. Scientific and Technical Information Publications (STI) – Technical Publications, Technical Memorandums, Contractor Reports, Conference Publications, and Miscellaneous (journal articles). Subject matter includes all areas of research and development including engineering, medical, and life sciences.
    3. Proposal Publications – Proposals, special task team reports, and similar products to further MSFC's roles and missions. Documents are formatted according to required specifications for each NASA Research Announcement (NRA), Announcement of Opportunity (AO), or other calls for proposals. In FY01, five proposals were completed and two were in-progress.
g. Posters, Banners, and Displays (designs and produces artwork and text).
h. Presentations (designs, produces, and occasionally operates hands-on, especially for the MSFC Center Director's presentations).
i. Designs artwork for websites, and inputs weekly data into the Cafeteria Menu, report of missing items, and weekly bulletin websites.
j. Large format Lamination and mounting on foam core board.
k. Electronic Web Files (provides pdf files for STI pubs and MSFC Center Overview Charts for placement on the web and Marshall Technical Report Server (MTRS) and writing to CDs).

The contractor provides computer analyst support to all Graphics/Publications personnel to perform the following functions:

a. Troubleshoots problems of incompatibility between hardware and software applications, including network issues.
b. Keeps abreast of the latest technology and systems to provide input to hardware and software use, installation, and purchase to enhance the Graphics/Publications capabilities for MSFC.
c. Maintains a complete archive and cross-referenced database of all products/documents produced and ensures that they are safeguarded and retrievable.
d. Maintains back-up systems for all graphics products/documents residing on file servers.
e. Maintains a monthly clip art catalog, provided by the government, on a server that is accessible over the network to all graphic personnel.

The contractor maintains all records for the purpose of extracting such things as production and cost accounting data, labor hours, temp services, travel, equipment and software acquisitions, commercial services and costs, maintenance and lease agreements, etc., and submits reports as requested by the government.

The Contractor provides collocated dedicated labor, material, and other support for the creation, assembly, and distribution of the Technology Transfer Department services and products. All hardware and software are provided by the Technology Transfer Department. Specifically, the Contractor:

a. Writes success stories in support of the Small Business Innovation Research (SBIR) program activities and mission areas.
b. Supports outreach activities via conference logistics for technology based industry briefings.
c. Interacts with Education Offices, Community Relations Organizations, and other NASA Technology Transfer Offices and Departments.

The Contractor provides collocated dedicated labor, material, and other support for the creation, assembly, and distribution of the Microgravity Department services and products. All hardware and software are provided by the Microgravity Department. Specifically, the Contractor:

a. Provides expert experience with Adobe PageMaker, Illustrator, and other similar software applications (i.e. importing movies, etc.) in developing presentations.
b. Assists in the use and instruction of use of Microgravity's SmartBoard.
c. Provides input to hardware and software use, installation, and purchase to enhance the presentation capabilities for Microgravity.

All services, including the collocated dedicated graphics personnel, are provided in an Apple Macintosh environment utilizing such software as Adobe Acrobat, After Effects, FrameMaker, Illustrator, Indesign, PageMaker, PhotoShop, Premiere, LiveMotion; MacroMedia DreamWeaver, Director 8/ShockWave Studio, Freehand, Flash; Markzware FlightCheck; Design Science Math Type; Roxio Toast Titanium; Caere OmniPage; NewTek LightWave3D; Corel Bryce; Microsoft Word, PowerPoint, Excel; and FileMaker Pro.

3.2.7.6.1 Workload Statistics

Product	**FY01 Pages**	**FY02 Pages**
Animation	157 seconds	258 seconds
Brochures, Newsletters, Fact Sheets	4,624	5,098
Certificates	9,796	9,318
Illustrations	11,957	3,488
Technical Illustrations	64	46
Management and Proposal Publications	8,960	3,397
STI Publications	6,278	4,576
Posters, Banners, and Displays	4,411	4,032
Presentations	1,913	10,836
Matting, Lamination, and foam core mounting	517	305
Website Development/Inputs	322	364
Electronic Web Files	9,003	6,679

3.2.7.6.2 Future Requirements

The Technology Transfer Department projects utilizing collocated dedicated contractor personnel support, receiving most of the same type services, and supporting an average of 21 trips (travel) per year.

The Microgravity Department projects utilizing collocated dedicated contractor personnel and receiving the same type services.

There is an increased demand by the MSFC customers for 2D and 3D basic and complex animation services. This is expected to increase the demand for rendering capabilities to address all of the growing needs for web sites, input to video, multimedia presentations, and interactive Compact Disks, Digital Video Disks, etc. In addition, there is an increased demand for more interactive electronic imaging products. MSFC's advanced digital animation and multimedia services must provide cutting edge capabilities in the use of animated images to convey complex concepts, methods, and ideas. Addressing these new trends is essential to assure the customers that Marshall's

advanced digital animation and multimedia services are provided to convey complex space related concepts, methods, and ideas.

There is an increased demand for poster design, large format lamination, and mounting on foam core board, as well as PowerPoint presentations for viewing in the MSFC conference room environment.

There is an increased demand for interactive Portable Document Format CD-ROM Scientific and Technical Information (STI) publications in the future, so the contractor must be knowledgeable in developing this type of CD technology.

The Contractor shall assume the following functions and responsibilities that were previously performed by the civil service (STI) Specialist:

a. Receive a wide variety of technical manuscripts from diverse authors throughout the Center on subject matters relating to all areas of research and development, including engineering, medical and life sciences.
b. Determine the correct report series in which a document is to be published based on the contents of the author's manuscript, conversations with the submitting author, guidelines stated in the MSFC Writing Guide and NASA Scientific and Technical Information Handbook: Documentation, Approval, and Dissemination, NPG 2200.2, and through conversations with the Technical Publications Office personnel as needed.
c. Determine if all elements needed to complete the requested manuscript are included in the author package. Package should include a completed SF 298, Report Documentation Page, NASA Form 1676, Document Availability Authorization, and author's distribution labels.
d. Prepare a work order to establish completion date and to identify all processes needed to produce the final manuscript. (Manuscript is considered a draft at this point.)
e. After concurrence from the Document Availability Authorization Representative, the contractor shall pick up the manuscript and notify the author that the draft is ready for review.

The contractor must keep abreast of the state-of-the-art and emerging technologies in the performance of all graphics/publications tasks to utilize these technologies as economically feasible.

When the workload exceeds the in-house capabilities (skills, scheduling, etc.), the Contractor will need to provide outsource capabilities as required.

3.2.7.7 Reproduction and Printing Services

3.2.7.7.1 In-house Duplicating Services

The contractor provides all labor, materials, and other support to operate and manage Central Reproduction, located in Building 4200, Room G34, and Repository

Reproduction, located in Bldg. 4491. The duplicating facilities at MSFC provide reproduction, duplication, binding and finishing services from hard copy or electronic submission. These services are provided in accordance with Public Law 102-392 and Section 207 the Joint Committee on Printing (JCP) Printing and Binding Regulations, and equivalent to the Government Printing Office Quality Assurance Through Attributes Program (QATAP) for Quality Level III.. MSFC customers use the on-line Service Request System (SRS) to request duplicating services. The services are, but not limited to, black and white duplication of (duplexed or simplex) standard documentation and large engineering documents (simplex only) up to J-size; and color copying of standard documentation up to 12" x 18" (duplexed or simplex). Binding for B&W and Color products includes: side stitch, stapled in upper left, saddle stitch, adhesive-tape perfect binding, three-hole drill, metal fasteners, and GBC Binding (comb binding). Expedited Service requiring Overtime is an Augmented service and will be charged-back to the requesting organization.

The contractor supports and manages electronic services for the submission and processing of customer computer files for duplication. This includes management and system administration of the reproduction print-ques and server, receiving and processing email submissions with attachments, and physical media (i.e.: Iomega Zip disks, CD-R disks, and 3.5" disks). Additionally, the contractor archives, indexes (through database), and retrieves B&W documents with in the Xerox DigiPath/RAID system.

Equipment utilized includes:

ITEM	Qty	Lease/Owned
Xerox Publisher, DocuTech (w/DocUSP servers, DigiPath PC & software and High-speed Production Scanner	2	Leased
Xerox DigiPath PC and Scanner	2	Leased
Xerox RAID	1	Leased
Xerox 5390 Duplicator	1	Owned
Xerox DocuColor 2045 Digital Press w/Fiery ZX18 Command Workstation	2	Leased
Lanier 5635 Copier**	2	Owned
Xerox 8855 DDS Large Format Plotter+NetworkPC & attached Folder,	1	Leased
Challenge Table-top Folder	1	Owned
Interlake Stitcher	3	Owned
Challenge Paper Cutter,	1	Owned
Challenge Drill	1	Owned
Challenge Drill (one spindle)	1	Owned

*Both Xerox DocuTech 6135s are cross utilized in support of Mainframe Applications printing services.

Future trends and expectations will include, but is not limited to, the upgrading and/or replacement of duplicating equipment as technology emerges. Previous technology advances have been responsible for the shift of duplicating with offset presses to electronic publishers (such as the Xerox DocuTech). Variable data and customizing

for distribution or marketing are emerging tools that could be used at MSFC to meet customer needs.

Since the first acquisition of a color duplicator in 1994, color duplication or color copying as grown exponentially. Marketing of Marshall programs and projects have fuelled the need to present technical information in color for clarity and precision. Color duplication will continue to grow for public documents and technical information.

Additionally, the need for low volume, large color duplicating (oversized or greater than 12”x18”) is rapidly emerging at MSFC. The In-house Duplicating facility will provide large format color printing from electronic files. The service will require identification of high-quality large format color equipment for purchase/lease. Additionally, as this service market grows the contractor may be required to provide full-time staff to meet customer requests.

It is expected that emerging technology will result in the continual decline of paper duplication due to digital file transmission through email or web site sharing, paper duplication will continue to decline.

As new digital printing and duplicating technology is introduced, the contractor will be expected to evaluate, implement, and provide in-house duplicating services with current technology. This is an ever-changing industry and the selected contractor must be able to embrace new technology. The next generation of duplicating equipment may again change the workflow, or work processes within the in-house duplicating facilities.

Electronic submission of files for duplication, storage and retrieval for re-duplicating will continue to grow. Additionally, an electronic work order submission with electronic files will be necessary to facilitate this type of work. It is expected that the steady decline in total B&W page units will continue, while color pages units continue to increase.

3.2.7.7.2 Commercial Printing Procurement

MSFC Printing Office procures all commercial printing purchased with appropriated funds through the Government Printing Office (GPO) for all MSFC organizations and entities acting on behalf of Marshall Space Flight Center. This procurement process will be in accordance with Title 44 of the U.S. Code and Public Law 102-392, October 6, 1992 (amended by Public Law 103-283, July 22, 1994), Section 207 and the NPG 1490.5.

The contractor provides one full time printing specialist in the MSFC Printing Office, Building 4200, room G32A. The contractor provides printing procurement services as prescribed by the MSFC Printing Officer. The contractor utilizes all procurement vehicles available through the GPO including existing local and NASA-Headquarters GPO term contracts and one-time solicitations for specialty products,

contracts, and one-time solicitations for specialty products. These services will include, but are not limited to:

a. Prepares standard from written specifications per GPO policies and Printing Office requirements; customer interviews to determine product requirements, and customer satisfaction
b. Monitors all phases of each printing procurement for schedule, cost, and contract terms.
c. Knowledgeable of, and make recommendations for, types of paper, folding, & finishing methods
d. Receives and evaluates printed materials for quality assurance, acceptance, and distribution
e. Maintains databases for the MSFC Printing Office utilization
f. Knowledgeable (expert level) of current (and most recent) graphics and printing software, techniques and technology
g. Attends press inspection when necessary to assure desired color quality
h. Executes the Government Printing Office Quality Assurance Through Attributes Program (QATAP) for each procured product
i. Knowledge of all GPO contract terms and other procedural processes
j. Recognizes and manages quality defects, reprinting and/or corrections when necessary.

GPO procurements are charged back to the requesting organization at actual cost and must be funded prior to initiating any procurement actions. In FY-2002, the MSFC Printing Office processed 231 work requests for a wide variety of products at a total cost of $510,918.00. The MSFC Printing Office manages seven term contracts through Atlanta Regional GPO and Washington/ GPO (collaboration with NASA Headquarters). Listed below are the types of products and an estimated quantity procured annually.

Types of Printed Products (not a complete list)	Quantity
Brochures includes a variety of printing techniques, such as: B&W, Spot color, and 4-Color Process, embossing, die cuts, etc.	62
Marshall Star (an in-house news issued weekly)	50
Scientific & Technical publications (includes all varieties)	17
CD-Mastering and Replication	2
Specialty Items: decals, magnets, wall plaques, pocket folders, customized Post It notes	25
Forms, i.e., letterhead, tags, labels, multi-part forms, carbon sets, envelopes, perforations, security badges	50

Business Cards	25

The PDF workflow is becoming utilized by many commercial printers and will provide the MSFC Printing Office with greater control over font movements or problems. The contractor personnel will be expected to stay familiar with this technology shift and provides recommendations for adoptions.

The new Simplified Purchase Acquisition program provided through the GPO will provide MSFC with more flexibility in procuring a variety of products through reputable contractors and with faster turn around time. Adopting this program at MSFC will enable printing procurement based on "Best Value" and no longer "lowest bidder."

Lastly, current Federal policy debates may ultimately eliminate the mandate to procure commercial printing through the Government Printing Office. Changes to the Public Law and the Federal Acquisition Regulations may totally change the way the executive agency's procurement of commercial printing. This major policy change may require the contractor to develop and implement streamlined printing procurement methods on behalf of Marshall Space Flight Center.

3.2.7.7.3 Mainframe Applications Printing

The contractor provides total operation and management of output printing from mainframe applications to support MSFC organizations, e.g., Financial Management Office, Procurement Office, and Center Operations Logistics Property Management Department. These services include managing output print queus from the mainframe computers to high speed laser printout (Xerox DocuTech 6135), or to a continuous-feed, marginally-punched matrix line printer.

The contractor facilitated and managed printer-resident forms for current and new mainframe form/data merge requirements across the Agency. This includes, as required, design, revision, and distribution of printer-resident forms to all NASA centers. The contractor provides system administration of the data stream print queues, print engine software, and supply management of special paper and forms.

3.2.8 National Space Science and Technology Center (NSSTC)

The National Space Science and Technology Center (the NSSTC) is a research organization with its core facility in Huntsville, Alabama. It is an academic, government, and industry consortium for cutting-edge research in selected scientific and engineering disciplines. See http://www.nsstc.org/ for more information.

The NSSTC is a four-story building, with a 4-story annex, housing a total of approximately 350 civil servants, visiting colleagues and contractors. The building also contains significant laboratory areas for support of weather, astrophysics, and solar system sciences.

The PrISMS contract currently manages the NSSTC's network and desktop infrastructure, in collaboration with the University of Alabama at Huntsville (UAH). UAH is primarily concerned with user support issues and Microsoft-related infrastructure system administration and operations, but can assist in other areas. Technical support and management are carried out in accordance with all appropriate government and NASA policies and guidelines concerning peering, configuration, and Information Technology security. UAH, not PrISMS, maintains the internal physical cable plant; however, PrISMS provides some physical plant support, as explained below. Elements at the NSSTC, which have no direct contractual agreement with NASA, reside on designated separate virtual networks. In this case, academic interests maintain desktop computers. However, the overall network infrastructure is maintained by PrISMS using NASA policies and procedures, in coordination with the NSSTC partners to meet all requirements of the consortium regarding networking.

The following delineates the specific areas of PrISMS and CSOC support at the NSSTC:

a. Physical Plant (network) support: 24x7 environmental monitoring alerts; electrical power UPS maintenance and administration, and infrastructure power generator engineering.
b. Infrastructure Hardware (provide and configure) internal routers, firewalls, switches, VPN server, Network and IP Telephony, plus (dark) fiber between NSSTC and MSFC. The NSSTC onsite network devices are currently Cisco Systems, Inc. devices. The CSOC contract maintains the primary (border) router at the NSSTC, at Standard IP service level.
c. Network peripherals (administration, operations, maintenance): networked-based printers, fax, scanning hardware. Remote access administration and maintenance for VPN and dial-in services. Wireless LAN prototype support, and network-based television (IPTV).
d. NSSTC network infrastructure services: manage IP network address space. Administer, maintain, and operate Domain Name Services (DNS), Dynamic Host Control Protocol (DHCP) services, Windows Internet Naming Services (WINS), Radius protocol services, Active Directory services. These services are based on Microsoft, Inc., Windows 2000 and active directory, with redundant servers for infrastructure applications for reliability. The NSSTC domain is a child of the nasa.gov domain, maintained at Marshall Space Flight Center by PrISMS.
e. Network Application services: Microsoft Exchange (Email); Time Services, Printer Services; and User data servers, Administration of more than 16 servers. Backup services for network servers and (limited storage) desktop users. Off-site storage for backups also provided for emergency contingency.
f. Desktop and User Support, including hardware and O/S installation, troubleshooting and moves/changes/deletes. Maintenance of desktop infrastructure security policies, using active directory. PrISMS also provides support for security plan creation, firewall administration, email

virus scanning, desktop-based antivirus software, and security-related patches and upgrades for both desktops and network infrastructure devices.

g. IP Telephony (voice over IP): installs/moves/administration and maintenance. Voice mail services and unified messaging services. Also provides IT infrastructure software applications support (VoIP call manager data retrieval, and infrastructure environmental monitoring.)
h. Engineering and upgrades for network infrastructure.
i. System administration and operations: including (but not limited to) Linux, SGI, Solaris, Microsoft Windows 2000/NT, Win9x, Macintosh, and OpenVMS.
j. Computer engineering support: requirements gathering, hardware, software specifications, procurement support, evaluation of vendor proposals and prototype project support.
k. IT Security: desktop (domain policies), VLAN and firewall implementations, changes, and updates, operations. Support for creating IT security plans for NSSTC systems (servers and desktops) is also provided.
l. Scientific programming application support in the area of magnetospheric sciences (projects TIDE, LENA, and IMAGE), flight software applications support. Earth science (global hydrology) for ongoing data reduction and new software development.

3.2.9 NASA Information Support Center (NISC)

The NISC, commonly known to about 30,000 end users as the Marshall Help Desk or even more simply as a phone number (544-1771), provides MSFC and NASA-wide customers with a single source of assistance, support and problem resolution for Information Technology (IT) issues, 24 hours per day, seven days per week.

The NISC provides NASA management with a centralized source of information for IT problem management, asset management, resource utilization, configuration control and operational status. The NISC provides support for all local services at MSFC, as well as the NASA Information Services Network (NISN) world-wide Wide Area Network (WAN) and the NASA ADP Consolidation Center (NACC) Agency-wide consolidated mainframe operations. The NISC provides NASA customers with an integrated service for problem identification and resolution across all IT components for which MSFC has management responsibility, including:

a. Desktop hardware and software (non-ODIN)
b. Network server operations (non-ODIN)
c. Local Area Network management, monitoring and operations (non-ODIN)
d. Wide Area Network management, monitoring and operations (NISN) including voice, video, data and facsimile services
e. NACC mainframe data processing
f. NASA legacy administrative systems support (SESAAS)

g. International space partner support including Russia, Japan, European Space Agency and Canada
h. Integrated Financial Management (IFM) system operations
i. Telephone operations and maintenance (MSFC and MAF)
j. Cellular phone management (MSFC and MAF)
k. Radio and pager service (MSFC and MAF)
l. IT Security including intrusion detection, analysis and repair
m. Computer access control and password management

In October 2001, the NISC was certified under the 2000 ISO standards. When the certification audit was conducted of the NISC processes and procedures, there were no findings of non-conformance. These processes and procedures will be Government provided documents.

The NISC serves as the first interface for all PrISMS customers. It is a fully integrated 24x7 call center that provides problem management for computational, voice, message, video and data services. The NISC provides single number trouble reporting for the NISN WAN, local MSFC, NACC, and NASA mission services. The NISC is responsible for all aspects of trouble ticket processing; network surveillance; major outage notification; password resets; and network trend analysis. The NISC also monitors local weather and initiates severe weather warnings and notifications for the MSFC community; prepares and publishes a daily major outage report on a web site; and provides after-hour telephone support for the MSFC Utility Control System, voice conferencing, MSFC Flight Operations, MSFC Emergency Operations Center, and the MFSC Center Director's telephone. Additionally, the NISC is NASA Headquarters After Hours Contact Center and provides support to NASA Headquarters executives. Other responsibilities include notification of MSFC management in the event of personal injury, hazardous spills, bomb threats, other incidents and emergency plan support for threats, and air pollution.

To handle the call volume, the NISC utilizes a Computer Telephone Integration (CTI) system. A Lucent telephone switch solution using a SpanLink software application permits NISC analysts to identify the caller's number (caller id) and the called number. SpanLink automatically enters the caller's number into a Remedy trouble ticket and begins an automated process to pull customer information (name, building, room, and organization) into the trouble ticket from an Oracle database. Use of the CTI product improves the NISC analyst efficiency and reduces the amount of information manually entered into a trouble ticket. The CTI system provides detailed call center reports that are used to measure call-handling efficiency.

The NISC uses a trouble ticket system called Problem Management and Dispatch System (PMDS) that is Remedy based and has custom schemas, filters, active links and C-code routines for the MSFC environment. It is tied to a customer relationship management (CRM) data warehouse that automatically fills in pertinent information on the ticket about the user's equipment and maintenance information. The database runs on an NT platform. Remedy is also used to schedule activities that may impact IT services.

There are currently 1200 users of the PMDS including users located at NASA sites across the country. These users access their ticket information through the use of the web.

To assist NISC analysts in solving desktop problems, a Serviceware, Inc. product, KnowledgePak, is available. The analyst enters a short key word description of the problem and KnowledgePak identifies possible solutions. Working with the user, NISC analysts direct corrective actions. The NISC uses both vendor provided and in-house developed knowledge modules.

For enterprise monitoring, the NISC uses BMC's Patrol Enterprise Monitor (PEM), formerly Boole & Babbage Command Post. PEM monitors alarms from the MSFC LAN, WAN connecting all NASA centers, WAN connecting to NASA sites in Russia, network in Russia, telephone switches at MSFC and MAF, designated logical partitions at the NACC, and other specified servers and network devices. By using the PEM, the NISC alerts system administrators and network technicians to fault trends and outages.

The NISC provides notification alert services for all emergency events and situations on MSFC. It also serves as the Emergency Operations Center for MSFC during non-prime hours. It provides servere weather monitoring and off-hour employee alert service. It provides off-hour telephone answering service on behalf of the MSFC Director and Senior Management staff.

The NISC is a first, with some second, level Help Desk providing technical assistance to call-in customers for a wide variety of IT concerns and issues. The NISC analysts refer customer calls that require specialized assistance or require a technician to physically visit a customer to the appropriate maintenance agency for resolution. The NISC manages customer trouble tickets until they have been successfully closed. For selected services, the NISC provides second-level assistance to customers on the first call.

MSFC expanded the role of the NISC to provide a single source of customer assistance for all services under the direction of the Center Operations (CO) Directorate. The initiative, One Stop Service, broadens the first-level scope of the NISC beyond the IT functions (above) to include all MSFC housekeeping services such as facilities maintenance and repair, utilities, graphics, central reproduction, property management, shipping/receiving, and transportation.

The NISC provides help desk service to Agencywide users of mainframe LPARs that are hosted at the MSFC NACC. NISC analysts answer user calls as the "NACC Technical Services Center". First level support consists of password resets, synchronizing mainframe and desktop passwords, connectivity and systems availability issues. NISC analysts identify the specifics of user problems before forwarding the trouble ticket to second level staff. Major connectivity issues are identified using the NISC Enterprise Monitoring system.

Services provided to the NISN customer base by the NISC include monitoring the NASA WAN and handling problem calls for voice and video teleconferencing, facsimile, and peering users off the NASA network.

The NISC provides after normal work hours MSFC LAN alarm monitoring service for the ODIN delivery order at MSFC. The NISC contacts the appropriate ODIN technical staff for restoration actions.

The NISC is the After Hours Contact Center for NASA Headquarters. NASA Headquarters published a toll free number for emergency and duty officer contact. This number rings in the NISC. NASA Headquarters provides executive contact information to the NISC on a weekly basis. The processes and procedures for this activity are defined by NASA Headquarters. Copies are maintained by the Lead within the NISC, the department manager, and the NASA manager.

The NISC began providing full desktop help desk service to the CSOC staff in July 1999. There are about 3500 users across the continental United States. NISC analysts answer user calls as "CSOC Help Desk". The NISC expanded the Enterprise Monitoring service to CSOC to ensure equipment (routers, bridges, and servers) located at CSOC sites is monitored for failure on a 24X7 basis. When the NISC detects a major alarm, an analyst will contact the responsible CSOC service owner at the appropriate NASA center to begin resolution efforts immediately.

The NISC provides call center help desk support for CSOC Service Level Maintenance Management. When trouble tickets are opened in Remedy for maintenance management, work orders are automatically generated in a Maximo work management system. Metrics on work management are available to users in the Maximo system.

On average, NISC personnel handle between 9,000 and 12,000 calls per month and issue 3,500 trouble tickets per month. First call problem resolution rate is about 70 percent. The NISC abandoned call rate target is 8 percent. The actual abandoned call rate is affected by major network and server outages. In addition, the NISC acts as the Availability and Scheduling office for all activities being performed on MSFC, NACC, and Mission Services.

3.2.10 Technical Support

The Space Launch Initiative (SLI), also referred to as the 2nd Generation Reusable Launch Vehicle Program, is a multi-year NASA program designed to architect the next reusable launch vehicle, by investigating new space transportation designs and advanced technologies that reduce both costs and risks of space flight. Managed by MSFC, SLI currently includes participation by eight nasa centers and numerous aerospace contractors. The MSFC has been tasked with satisfying IT systems requirements support under the PrISMS contract, while applications support is provided by other IT support contractors. Currently, SLI requires support for the following types of environments:

- Business and program management systems that support:
    - Earned value management
    - Requirements management
    - Risk management
    - Resource planning
- Data storage, management, and retrieval
- Advanced Engineering Environment (AEE)
- Windchill Product Data Management (PDM)
- Supports interchange of designs, models, and data among various disparate software tools
- Software configuration management

In the future, SLI will require business collaboration tools that support: custom workflows for project and product data management; data/document/object management and vaulting; integrated scheduling; collaborative cad visualization; and integration with existing project management tools and systems.

Strategies for accomplishing SLI requirements include: using NASA ADP Consolidation Center (NACC) to support systems and operations and provide costs using mid-range cost models; using agencywide software contracts, where possible; and integrating commercial-off-the-shelf (COTS) software requirements with other center requirements (Windchill, Oracle).

The contractor also provides technical support, systems engineering, and technology modernization through dedicated personnel. In this capacity, the contractor conducts feasibility assessments and performs integration of technical solutions.

3.3 Agencywide Information Services

3.3.1 Agencywide Applications

Agencywide Applications includes those systems that MSFC provides sustaining engineering support, production support, and Help Desk support for the Agency. This includes those applications that are supported by the Sustaining Engineering Support for Agencywide Administrative Systems (SESAAS), Consolidated NASA Personnel/Payroll System (NPPS) operational support, Site for On-line Learning and Resources (SOLAR), Web Time and Attendance Distribution System (WebTADS), Dryden Applications support, and NASA Acquisition Internet Services (NAIS). See Table 3.3.1 for the list of Agencywide applications maintained.

3.3.1.1 SESAAS

SESAAS also provides the production support for Employee Express, CAPPS, NEMS Central Database, and the NPDMS General Services Administration Error Report Transmission. The sustaining support includes the regulatory, policy, requirements, discrepancies and environment changes for the SESAAS applications. User enhancements are provided within project cost constraints. SESAAS is also

responsible for the Software AG products Database Administration/Application Working Group. As part of this responsibility, SESAAS provides evaluation and installation of Software AG product releases to the Agency. SESAAS is also responsible for developing interfaces between the SESAAS legacy applications and the Integrated Financial Management Program application. SESAAS delivered 42 software releases during FY2001 and 60 software releases during FY2002.

The AdminSTAR application was a COTS product. However, the vendor advised NASA of their intent to no longer support the software. NASA negotiated with the vendor and obtained the source code to the AdminSTAR system. SESAAS now maintains the software. SESAAS is developing a Web-based online registration module for AdminSTAR called NASA On-line Registration System (NORS).

The SESAAS applications are to be replaced by the Integrated Financial Management Program systems, with NPDMS as the exception. It is currently understood that the IFM systems do not perform the functions of NPDMS. According to the current schedule, the IFMP systems will be operational at the end of the following periods, thus phasing out the appropriate SESAAS applications. It is not known at this time how various Federal e-Government initiatives will affect any of these schedules or work.

Application	Time Frame
AMS	Fourth Quarter FY2006
NEMS, NSMS	First Quarter FY2006
AdminSTAR, NORS	Fourth Quarter FY2006
NPPS, CAPPS	First Quarter FY2005

SESAAS has metrics established that the work is evaluated against. The details on the metrics can be found in the SESAAS Performance Metrics document. SESAAS also conducts annual customer satisfaction surveys.

Currently NEMS, NPDMS, and NSMS are all distributed applications with Centers having their own copies of the software and database. Efforts are underway to consolidate all of the Property systems, NEMS, NPDMS and NSMS, into single Agency databases. SESAAS will provide the operational support to these systems.

Customer Subject Area	Service Type(s)	FY02 Productive Hours
Agency Systems – AMS, NEMS, CDB, NOSC, NPDMS, NSMS, CAPPS, AdminSTAR, NPPS	Application Prod. Support	182,000

3.3.1.2 Consolidated NASA Personnel/Payroll System Operational Support

This activity provides the production support for the Consolidated NPPS. It involves installing the core software distributed by SESAAS into the production

environment, the monitoring of payroll jobs, developing the appropriate job control language to adapt the Consolidated NPPS to run in the computing environment, providing sustaining support for the software unique to the Consolidated Payroll Office, providing technical assistance to Centers by providing extracts of NPPS data and assisting them in interfacing their site unique programs to NPPS, and the printing of Agency W2s.

3.3.1.3 Site for On-line Learning and Resources (SOLAR)

MSFC took responsibility for the SOLAR system in FY2001. This site is used for Web-based computer training. MSFC is responsible for the SOLAR infrastructure, and also provides content development as requested. The Information Technology Security Training for the Agency is on SOLAR and draws the biggest audience at this time. The SOLAR system has been sized to have the potential of 90,000 users. The SOLAR computer platform has been expanded to include a load balancer, application servers, and database servers to handle this number of users. Options for the growth of Agencywide training continue to be addressed. SOLAR continues to grow with disciplines throughout the Agency putting courses on SOLAR for a wide user-base. Efforts are also being expending in assisting the Functional Sponsor in evaluating eLearning and other Federal training initiatives.

3.3.1.4 WebTADS

The WebTADS application is a time and attendance system for NASA personnel. WebTADS was developed and has been rolled out to 5 NASA Centers, with 3 other Centers expected. Site unique interfaces continue to be developed as well as any specific changes required to support a Center. At this time WebTADS is scheduled to be incorporated into the roll-out of the e-Payroll solution for the Agency.

The contractor provides enhancements and development for the WebTADS custom software. The task consists of modifying WebTADS to include NASA timecard standardization features, labor standardization features, workforce reporting, modify and update timecard edits, update and release the WebTADS web site software, and provide support for adapting WebTADS to other NASA centers, as required.

This software was designed and developed for MSFC CFO. WebTADS is a government-owned application that utilizes several licensed pieces of software to complete its mission. These iclude: Oracle, Resin, and EIS/F. Technical requirements include extensive knowledge of WebTADS, experience in software development and architecture including, but not limited to Java, Java Server Pages, Internet Architectures, XML, ASP, Oracle database systems, and security configurations.

3.3.1.5 Dryden Applications Support

MSFC provides the applications support for the DFRC mainframe business systems, which are ADABAS/Natural. This support will be provided until the IFM Transition.

Application	Environment	Description
Dryden Accounting and Resource Tracking System (DARTS)	ADABAS/ Natural	Provides management of budgeting, accounting and financial business transactions for Dryden
Integrated Security Information System (ISIS)	ADABAS/ Natural	Provides primary security information for contractor and civil servant employees
Time and Attendance Distribution System (TADS)	ADABAS/ Natural	Provides automated time card collection
Labor Cost System(LABOR)	ADABAS/ Natural	Provides labor dollar tracking for Dryden
NPPS	ADABAS/ Natural	Support for the DFRC site uniques for NPPS
NEMS, NPDMS, NSMS, AMS	ADABAS/ Natural	Responsible for loading the core software and maintaining site uniques

3.3.1.6 NASA Acquisition Internet Services (NAIS)

MSFC provides application development, sustaining engineering, production support, and Help Desk support for NAIS. NAIS includes an integrated suite of tools available for use by the Center Procurement Offices. This suite includes tools, such as Past Performance Data Base (PPDB), Procurement Data Warehouse System (PDWS), and Interim Document Generation System (IDGS). It is not known at this time how various Federal e-Government initiatives or full implementation of IFM will affect these tools.

Table 3.3.1 Sustaining Support for Agencywide Administrative Systems (SESAAS) and other Agencywide Applications

SESAAS Applications	**Software**	**Hardware Platform(s)**
Acquisition Management System (AMS)	ADABASE/NATURAL	Mainframe
NASA Equipment Management System (NEMS) Central Database (CDB)	ADABASE/NATURAL	Mainframe
NASA Equipment Management System (NEMS)	ADABASE/NATURAL	Mainframe
NASA Online Supply Catalog (NOSC)	Powerbuilder, C++, Natural, Sybase Adaptive Server, ADABAS	Client/Server Sun 280R – Mainframe
NASA Property Disposal System (NPDMS)	ADABASE/NATURAL	Mainframe
NASA Supply Management Systems (NSMS)	ADABASE/NATURAL	Mainframe
Administrative Schedule Tracking Access Report (AdminSTAR)	PowerBuilder/ Customer Reporting – Brio, Oracle	Client/Server Web Based OS-UNIX
NASA Personnel/Payroll System (NPPS)	ADABASE/NATURAL	Mainframe
Consolidated Agency Personnel/Payroll System (CAPPS)	ADABASE/NATURAL	Mainframe
Other Agency Applications	**Software**	**Hardware Platform(s)**
Site For Online Learning and Resources (SOLAR)	Perl, C, CGI, JavaScript, HTML, PDF, Oracle	Client/Server Web Based
Web Time and Attendance Distribution System (WebTADS)	Java, HTml	Web-based Red Hat Linus
NASA Acquisition Internet Service (NAIS)	PERL, SQL, JavaScript, HTML, and MySQL	Web-based OS-UNIX

3.3.2 NASA Digital Television Project

NASA-wide coordination of DTV implementation is the primary role of the DTV Project. Standards and schedules for implementation are a major function. The project office functions as technical consultants to all NASA centers for design and implementation of DTV.

The DTV Project Office has the following responsibilities:

a. Determining NASA DTV requirements
b. Developing transition and implementation plans
c. Operating a DTV test facility to assist in setting NASA DTV standards
d. Technical coordination with the television broadcast industry
e. Acting as an engineering and implementation consultant to all NASA centers
f. General coordination of NASA DTV Implementation
g. Organization and participation in technical working groups, both NASA and industry

The DTV Project is the Agency expert in digital television, serving as the coordination group to schedule and implement the transition from analog to digital television. The Project has developed transition and detailed implementation plans that take into account NASA requirements and the broadcast industry transition to digital. The plans are updated as required to reflect Agency and industry changes. It sets NASA DTV standards by operating a test facility that allows various operational concepts to be validated against user requirements.

Experience with the DTV test facility and industry interchange, through technical coordination and participation in industry technical working groups, has developed an expertise within the DTV Program office. This expertise is used as a pool of technical talent to assist all NASA centers in engineering and implementation of their DTV systems.

Major activities of the DTV Project from FY01 to present include:

a. Documentation of every shuttle launch in HDTV and a significant number of unmanned launches
b. Documented the launch of the International Space Station (ISS) Increment 1 crew from the Baikonur Cosmodrome in Kazakhstan in HDTV
c. Worked with a NASA commercialization partner to fly an HDTV camera in space as a commercial payload. The Project Office supplied the personnel to develop flight procedures for the camera and train members of the ISS Increment 3 crew on camera operation
d. Developed a plan for transition NASA Television distribution from a single analog video signal per satellite transponder to multiple channels of digital video per transponder. If approved, the DTV Project Office will provide project management services

e. Developed a plan for sharing production quality video between NASA centers using Internet Protocol (IP) technology. This system will allow video transfers to be made without dedicated transmission systems in a non-real time manner.

Ongoing activities of the DTV Project include:

a. Working with camera manufacturers to develop an HDTV camera suitable for use in housings at the shuttle launch pads
b. Development work with various manufacturers to develop HDTV acquisition, processing, production, and encoding equipment to meet NASA and industry requirements
c. Supporting the first real-time downlink of HDTV from the ISS. This has included testing components intended for flight and developing distribution systems for use at MSFC for the HDTV video. It will include further testing of flight and ground components and training support for the astronauts.

3.3.3 Agencywide IT Security Services

NASA utilizes the Information Technology capabilities and NASA Integrated Services Network (NISN) to perform its mission and mission support functions at all field centers and NASA HQ. These resources connect through a global IT infrastructure. NASA utilizes a proactive and re-activeAgency-wide coordinated team effort to ensure that all IT Security components are secure and have a fast reacting team to deal with vulnerabilities, or incidents, that might occur. This includes notification, intrusion detection, incident response, database centralized collections, tracking and analysis, including forensics of IT Security activities.

The contractor establishes and maintains contact with internal and external technical working groups consisting of IT and IT Security professional associations, NASA Field Centers, and vendor systems experts to assist in accomplishing its mission. This includes supporting Computer Emergency Response capabilities from other government and industry organizations, both national and international. The contractor also supports NASA by attending various meetings and working groups to discuss issues and concerns regarding activities and functions in all IT Security areas.

Activities are provided for IT technical support at NASA Field Centers and in coordination with external incident handling entities to support IT Security Vulnerability Notification and Incident Response roles and responsibilities. These activities include: working in a collaborative partnership with NASA Centers and Agency-wide projects; working with NASA senior management to develop and test prototypes of IT Security tools, techniques, or training that may be planned for all NASA Field Centers; and working and coordinating with external entities such as the Federal Computer Incident Response Capability (FedCIRC).

Support is provided for secure intra- and inter-Agency communication within the Federal Government to improve the distribution of threat information and coordinate disaster response. NASA has established the NASA Secure Network (NSN) for this activity. This network currently carries only classified information for NASA National Security Systems, which include, but is not limited to, NSN.

The contractor supports activities to provide early warnings and detection of intrusions in the NASA Integrated Services Network (NISN) NASA Internet (NI). This support is provided through the analysis of network traffic and key signatures, and provides the response mechanisms to contain, analyze, and report the incident in a timely manner to the appropriate parties.

The contractor supports the development of an Agency-wide capability to identify and respond to real time attacks on NASA's cyber infrastructure. This system will encompass the Wide Area Network (WAN), Center's Local Area Network's (LAN) and Host systems associated with critical internal NASA resources. This will position NASA to aggressively respond to cyber attacks on the NASA IT Infrastructure and Programs through rapid identifications of the start of an attack and projection of the direction and targets followed by an immediate response to neutralize the threat and identification of counter measures to reduce future vulnerabilities.

The Firewall team maintains, configures, and operates firewalls for Agencywide services. The MSFC Agency Public Network Firewall protects servers and systems to which MSFC external users require access. These services are placed on a network, which is separate from MSFC’s networks. An NSSTC firewall protects an off-site facility that is a joint NASA-University of Alabama in Huntsville operated facility. The NACC has its own network separate from the Marshall network. The firewall product used for MSFC’s Agency Public Network Firewall is by Checkpoint; the products for the other Agency firewalls are Cisco PIX’s; and Nokia, using Checkpoint software.

Support is provided in the administrative coordination and technical support for all daily operations and planned upgrades with the NASA Incident Response Center (NASIRC). Support is provided to handle vulnerability notifications and incident detection, emergency coordination and recovery, and ongoing tracking and analysis responsibilities for the benefit of the NASA Agency (including the federal and contractor staffs).

NASIRC has established and maintains contact with internal and external technical working groups consisting of IT and IT Security professional associations, NASA Field Centers, and vendor systems experts to assist in accomplishing its mission. NASIRC specifically supports Computer Emergency Response capabilities from government and industry, both national and international at the discretion of the NASIRC Federal Project Team. NASIRC attends regularly held working group meetings to discuss evolving issues and concerns regarding the activities and functions of NASIRC

operations and to formulate recommendations for improving operations and/or reducing any potential risk exposures for NASA.

NASIRC supports NASA Field Centers with coordinating external incident handling entities in support of their roles and responsibilities, which includes working in a collaborative partnership with agency-wide projects like the NASA Integrated Services Network (NISN) on agency-wide 24x7 vulnerability notification and incident coordination initiatives; working with NASA senior management to test prototypes of IT Security tools, techniques, or training that may be planned for a broader roll-out to all NASA Field Centers; and working and coordinating with external entities like Federal Computer Incident Response Capability (FedCIRC).

Some specific work related to NASIRC daily operations includes the Incident Response and Coordination; Vulnerability Research and Notification; Software Evaluation, Development, and Management; Systems Administration of NASIRC Systems; and Technical Training Related to Incident Detection, Analysis, and Handling.

NASA consists of ten unique field Centers, Headquarters and many satellite sites. In order to achieve a more secure NASA, a centralized implementation and management for firewalls and intrusion detection systems has been developed and implemented. This effort should improve the security posture of the Agency with respect to detection and prevention, as well as provide a quick reaction (24x7) when the Agency's perimeter is penetrated.

The objective of the NASA Smartcard deployment is to insure that the interoperability and security vulnerabilities are addressed for physical and logical access to the NASA infrastructure. This technology is the first of many steps in assuring a "One NASA" secure environment.

The NASA Smartcard Project will result in a smartcard deployment developed in accordance with the Code X Identity Management Initiative. Identity management is a principal element of NASA Smartcard Project and will be supported as a part of the issuing system. The smartcard issuing system will be acquired, configured and deployed within the scope of NASA Smartcard Project. The NASA Smartcard Project will be implemented in three phases, resulting in a capability to issue a single NASA Smartcard to an individual that will be used as an employee identification credential, as well as a physical access proximity and logical access authenticator card. The final physical access proximity component requirements will be formulated following an assessment of current physical access control systems currently in place at NASA. The smartcard logical access component will incorporate public key infrastructure (PKI), symmetric key and legacy username/password technologies providing an enhanced secure network environment. The objective is to provide users a smartcard which will strongly authenticate users, i.e., two factors, for all logical access while at the same time minimize the inconvenience to users accessing systems which have not yet migrated to strong authentication technology. NASA has a current investment in the Entrust Technologies PKI for issuing certificates; the PKI solution must provide integration for storing the

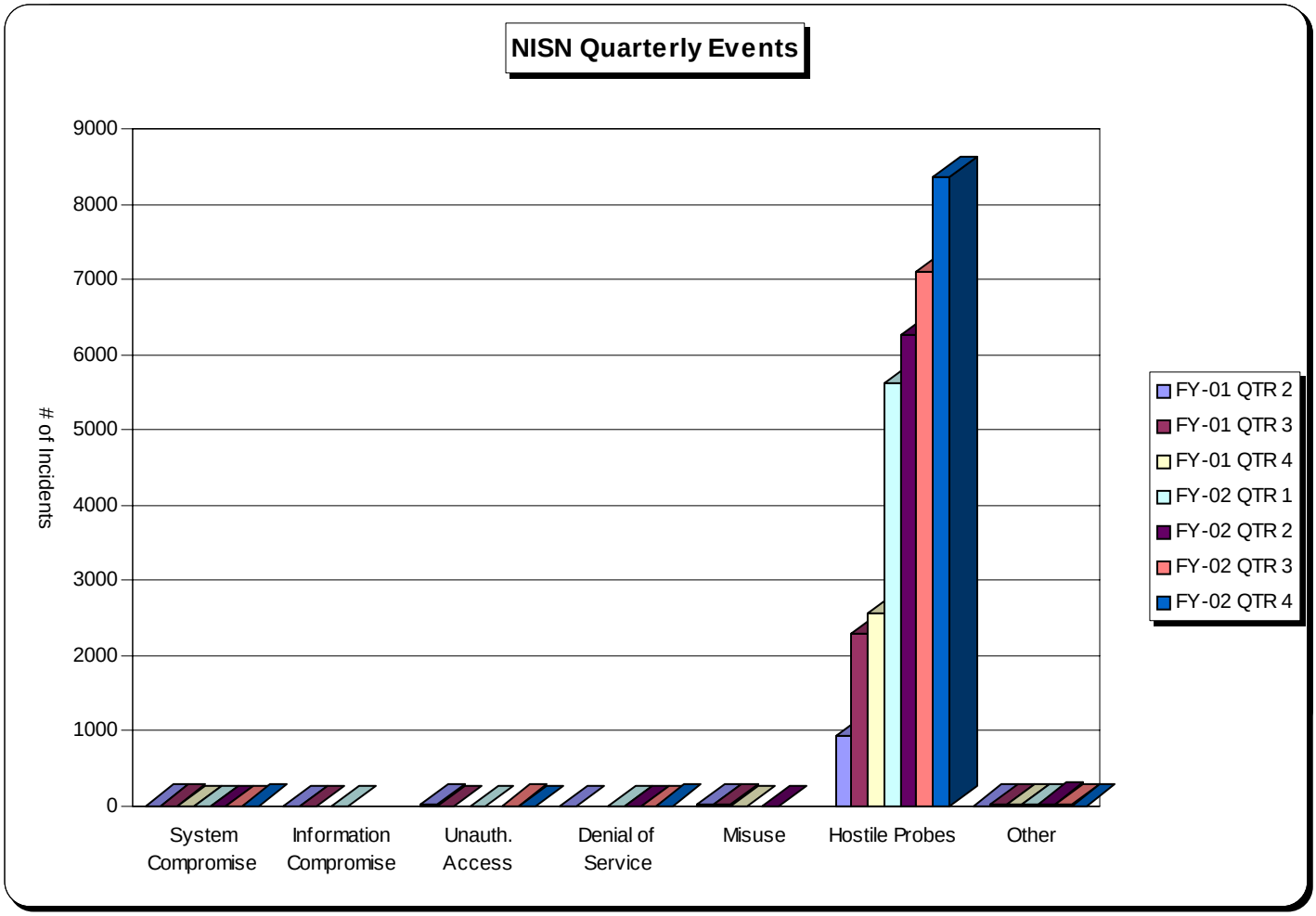
Entrust PKI profile on the smartcard. NASA also has an investment in the RSA ACE server and SecurID technology; the smartcard solution must provide a seamless integration with this existing symmetric key infrastructure. The implemented smartcard solution will satisfy the current requirements, and be extensible for future smartcard development such as contactless smartcard for physical access, the use of biometrics for both physical and logical access validation, and securing electronic transaction processing.

NASA utilized Communication Security (COMSEC) designs, processes, equipment (both hardware and software) in support of secure (classified) voice services, (STU-III, Secure Telephone Equipment (STE's), data services (facsimile, e-mail, file transfer and storage, SIPRNET connectivity, etc.) and video (desktop net meeting services). These are current services in which NASA has an install base that is supported thru and will be supported thru this contract at various NASA locations.

In progress and future planned activities include the procurement of two secure (classified) voice bridges, which will support both the STU and STE services. Iridium phones are being used in a limited basis at this time, with future growth, as is the use of the GSM Cell Phone units. We have just received and are in the process of deploying INMARSAT terminals at various locations through the Agency. These units will have full functionality for voice, data and video services.

NASA is also working with various government agencies as participants in future technologies and will be participating in "beta" programs that are available and that provide NASA with potential technologies that would benefit the space program(s).

Quantities, locations and other direct information on these systems will be made available during oral discussions only at the appropriate time when cleared personnel are available and have the appropriate need to know. Coordination with other government agencies will be done when information outside of NASA's direct control, needs to be reviewed or discussed.


NISN Quarterly Events
# of Incidents
9000
8000
7000
6000
5000
4000
3000
2000
1000
0
System Compromise
Information Compromise
Unauth. Access
Denial of Service
Misuse
Hostile Probes
Other
FY-01 QTR 2
FY-01 QTR 3
FY-01 QTR 4
FY-02 QTR 1
FY-02 QTR 2
FY-02 QTR 3
FY-02 QTR 4

3.3.4 Data Center Services

3.3.4.1 NASA ADP Consolidation Center (NACC)

The NASA Automated Data Processing (ADP) Consolidation Center (NACC) centrally operates and maintains mainframe-class computers and servers that support Agencywide administrative and programmatic processing requirements.

The long-range goal of the NACC is to provide a centralized, integrated, and standardized computational Center that provides cost-effective resources that meet Agency administrative and programmatic service objectives. The NACC is a customer-focused organization that provides high-quality computing products and services to MSFC and the Agency. The NACC's technical and operational expertise and management techniques have resulted in significant cost reductions and improved service. A cohesive infrastructure positions the NACC to manage and support consolidations and conversions regardless of the platform.

Today, over 30,000 users access Enterprise and Mid-Range systems and applications. Improved technology and standard product use have been achieved while providing significant operational cost savings (approximately 61% cost savings since 1994) for the Agency and improving the average processor age by nearly 50 percent and storage age by 60 percent. The initiatives below are current major focus areas:

a. Provide integrated support for current customers and potential customers without restriction to platform or application
b. Utilize, implement, and maintain "best-of-breed" planning, processes, procedures, and policies for a state- of-the-art computing environment (i.e. customer support, internal and external benchmarking, customer billing, rightsizing equipment-to-business needs, and standardization)
c. Ensure a safe, secure, and cost-effective computing environment by leveraging best practices in all computing areas and by utilizing economies of scale in providing hardware, software, and support for NASA.

The NACC manages the Oracle Enterprise License Agreement (OELA) for NASA. The NACC provides an interface with Oracle customers across the Agency to provide and track access to owned software database seats, to prepare cost estimates for new requirements, and to include fiscal year billing for Oracle software during the budget cycle. An OELA web site is available for use in providing information to Agency Oracle customers. An application is being developed to provide automated requests for new services to the MSFC OELA team.

The NACC maintains 20 LPARs. The systems are operated 24 hours per day, 7 days per week. The types of Operating Systems in use are: zOS, VM, and Linux. Four LPARs are affected by Mission Freezes.

a. Launch minus 7 days to landing plus 48 hours
   JSIMCA
   NAARTMS
b. Launch minus 3 days to Launch plus 24 hours
   MAPROD
c. Launch minus 4 hours to Launch plus 2 hours
   JSDMVS

The monthly average of NACC trouble tickets is 65. In the past year, the monthly high was 149 trouble tickets, while the monthly low was 28. The Host Production LPAR objective for availability is 99.90%.

System Name	MIPS
HOSYSB	18.1
J11DMVS (JSDMVS)	14.9
J13CISD	4.4
K14PRD1	29.4
M02MSFC	29.3
NALIB01	3.7
STENNIS	21.9
TEST1A	6.9
ARCMVS	20.0
BUSOS	26.9
GODPROD	36.2
LAPROD	27.1
NAPROD	22.4
F02DEVP	17.6
F23PROD (MAPROD)	27.2
I01IMICB	6.3
I37IMICA (JSIMCA)	13.7
J07SDEV (NAARTMS)	9.1
J41CINA	0.0
NACOMN	26.5

3.3.4.2 Agencywide Midrange

Agencywide midrange provides support to several Agency-wide applications. Currently, midrange equipment is located at MSFC Bldg. 4663, Bldg 4200 and at Glenn Research Center. Agencywide midrange provides system design and service integration support at both the MSFC and GRC locations. Hardware and software enhancements are provided to meet the ever- changing customer requirements. Agencywide midrange maintains operating systems, database management systems, web server systems, Citrix™ server farm, Rapport services for the Wyse WinTerm client, electronic mail and distribution services, print services, backup and recovery services, and computer security as required by the NASA Agency standards. The Microsoft Windows 2000, NetIQ,

CiscoWorks and Tivoli are some of the tool sets used to provide the highest level of availability.

a. Provides the NASANet infrastructure a Windows 2000 Active Directory, Domain Naming Services (DNS), Windows Internet Naming Services (WINS), Radius services and Dynamic Host Configuration Protocol (DHCP) services.
b. As a component of the Information Mission Control Center (IMCC), midrange provides server operations staff on site between 7am and 7pm CST, 5 days a week with on call support 24 hours per day, 7 days a week. This staff is located in Bldg 4629. Additional operational support is provided with the supply of appropriate software tools, processes and procedures. The IBM systems that provide the Infrastructure Systems Management (ISM) are also supported by midrange.

The following is a listing of some of the customer applications that are supported.

a. NASA Budget System (NBS) is a system that comprises three Windows NT 4.0 Terminal Services Servers with the applications Citrix and Performance Series, two Windows NT 4.0 running Crystal Reports and one Oracle Database server running on a Sun Server with three databases. Strong Authentication is required to access this application. These systems comprise the production, test and development environments.
b. eBudget is a system that comprises two Windows 2000 Servers with IIS 5.0, two Windows 2000 Servers running the eBudget applications and one Oracle Database server running on a Sun Server with two databases. These systems comprise the production and redundant systems.
c. The Macintosh Interface for IFM Applications comprises sixteen Windows 2000 Server systems. These systems are running Citrix Server, Citrix nFuse, Citrix Secure Gateway and Citrix Secure Ticketing Authority. Published applications include SAP 4D, SAP 620, Travel Manager production and development, Business Warehouse production and development, BankCard production and development and two IFM training sites. Strong Authentication is required to access this application.
d. The UUPIC application consists of a Windows 2000 server providing web services and a Microsoft SQL 2000 server providing data management.
e. The CIO office distribution lists are supported by a SuSE Linux server running Mailman.
f. The ProSight application is housed on two Windows 2000 servers providing web and application services and two Microsoft SQL 2000 servers for data management.

See also sections 3.2.2.1, 3.2.2.2, and 3.2.2.3.

Table 3.3.4.2 Agencywide Midrange

Server Name	Purpose	Model	Server OS
numsadc001.nissu.nasa.gov	Domain Controller	DELL 2650	Windows 2000 Server
numsadc002.nissu.nasa.gov	Domain Controller	DELL 2650	Windows 2000 Server
numsadc003.nissu.nasa.gov	Domain Controller	DELL 2650	Windows 2000 Server
numsexc001.nissu.nasa.gov	Exchange 2000 Server	DELL 2650	Windows 2000 Server
numsexc002.nissu.nasa.gov	Exchange 2000 Server	DELL 2650	Windows 2000 Server
numsexc003.nissu.nasa.gov	Exchange 5.5 Server	DELL 2650	Windows 2000 Server
numsinf001.nissu.nasa.gov	Infrastructure Services	DELL 2650	Windows 2000 Server
numsinf002.nissu.nasa.gov	Infrastructure Services	DELL 2650	Windows 2000 Server
numsinf003.nissu.nasa.gov	Infrastructure Services	DELL 2650	Windows 2000 Server
numsniq001.nissu.nasa.gov	NetIQ Appmanager 5.0	DELL 2650	Windows 2000 Server
numssql001.nissu.nasa.gov	SQL 2000 Enterprise	DELL 2650	Windows 2000 Server
numsrap001.nissu.nasa.gov	Rapport Server	DELL 2650	Windows 2000 Server
numssms001.nissu.nasa.gov	Systems Management Server 2.0	DELL 2650	Windows 2000 Server
numsweb002.nissu.nasa.gov	Certificate Authority	DELL 2650	Windows 2000 Adv Server
numsweb003.nissu.nasa.gov	Certificate Authority	DELL 2650	Windows 2000 Adv Server
numssql003.nissu.nasa.gov	SQL 2000 Enterprise	DELL 2650	Windows 2000 Server
numssql004.nissu.nasa.gov	SQL 2000 Enterprise	DELL 2650	Windows 2000 Server
SQL Virtual IP Cluster	SQL 2000 Enterprise		
SQL Virtual IP Cluster	SQL 2000 Enterprise		
numsfil001.nissu.nasa.gov	File Server	DELL 2650	Windows 2000 Server
numsfil002.nissu.nasa.gov	File Server	DELL 2650	Windows 2000 Server
numsfil003.nissu.nasa.gov	File Server	DELL 2650	Windows 2000 Server
numsprt001.nissu.nasa.gov	Print Server	DELL 2650	Windows 2000 Server
numsprt002.nissu.nasa.gov	Print Server	DELL 2650	Windows 2000 Server
numsbac001.nissu.nasa.gov	Veritas Backup Server	DELL 2650	Windows 2000 Server
numsweb001.nissu.nasa.gov	Tivoli IIS 5.0 Web App Server	DELL 2650	Windows 2000 Server
numssql002.nissu.nasa.gov	Tivoli SQL 2000 Server	DELL 2650	Windows 2000 Server
numsqos001.nissu.nasa.gov	Tivoli NetQOS Server	DELL 1650	Windows 2000 Server
numscms001.nissu.nasa.gov	Schlumberger Card Management System	DELL 2650	Windows 2000 Server
numsman001.nissu.nasa.gov	Network Management Systems	DELL 2650	Windows 2000 Server
numsman002.nissu.nasa.gov	Network Management Systems	DELL 2650	Windows 2000 Server
numsman003.nissu.nasa.gov	Network Management Systems	DELL 2650	Windows 2000 Server
numscwk001.nissu.nasa.gov	Cisco Works Server	DELL 2650	Windows 2000 Server SP 2
numscxm002.nissu.nasa.gov	Citrix Manager (Data Collector)	DELL 2650	Windows 2000 Server
numsctx001.nissu.nasa.gov	Citrix Server	DELL 2650	Windows 2000 Server
numsctx002.nissu.nasa.gov	Citrix Server	DELL 2650	Windows 2000 Server
numsctx003.nissu.nasa.gov	Citrix Server	DELL 2650	Windows 2000 Server
numsctx004.nissu.nasa.gov	Citrix Server	DELL 2650	Windows 2000 Server
numsctx005.nissu.nasa.gov	Citrix Server	DELL 2650	Windows 2000 Server
numsctx006.nissu.nasa.gov	Citrix Server	DELL 2650	Windows 2000 Server
numsctx007.nissu.nasa.gov	Citrix Server	DELL 2650	Windows 2000 Server
numsctx008.nissu.nasa.gov	Citrix Server	DELL 2650	Windows 2000 Server
numsctx009.nissu.nasa.gov	Citrix Server	DELL 2650	Windows 2000 Server
numsctx010.nissu.nasa.gov	Citrix Server	DELL 2650	Windows 2000 Server
numsctx011.nissu.nasa.gov	Citrix Server	DELL 2650	Windows 2000 Server
numsctx012.nissu.nasa.gov	Citrix Server	DELL 2650	Windows 2000 Server

Server Name	Purpose	Model	Server OS
numsctx013.nissu.nasa.gov	Citrix Server	DELL 2650	Windows 2000 Server
numsctx014.nissu.nasa.gov	Citrix Server	DELL 2650	Windows 2000 Server
numsctx015.nissu.nasa.gov	Citrix Server	DELL 2650	Windows 2000 Server
numsctx016.nissu.nasa.gov	Citrix Server	DELL 2650	Windows 2000 Server
numsctx017.nissu.nasa.gov	Utility.nasa.gov Citrix Farm	DELL 2650	Windows 2000 Server
numsctx018.nissu.nasa.gov	Utility.nasa.gov Citrix Farm	DELL 2650	Windows 2000 Server
numsctx019.nissu.nasa.gov	Utility.nasa.gov Citrix Farm	DELL 2650	Windows 2000 Server
numsctx020.nissu.nasa.gov	Utility.nasa.gov Citrix Farm	DELL 2650	Windows 2000 Server
numsctx021.nissu.nasa.gov	Utility.nasa.gov Citrix Farm	DELL 2650	Windows 2000 Server
numsctx022.nissu.nasa.gov	Utility.nasa.gov Citrix Farm	DELL 2650	Windows 2000 Server
numsctx023.nissu.nasa.gov	Utility.nasa.gov Citrix Farm	DELL 2650	Windows 2000 Server
numsctx024.nissu.nasa.gov	Utility.nasa.gov Citrix Farm	DELL 2650	Windows 2000 Server
numsctx025.nissu.nasa.gov	Utility.nasa.gov Citrix Farm	DELL 2650	Windows 2000 Server
numsctx026.nissu.nasa.gov	Utility.nasa.gov Citrix Farm	DELL 2650	Windows 2000 Server
numsctx027.nissu.nasa.gov	Citrix Server	DELL 2650	Windows 2000 Server
numsctx028.nissu.nasa.gov	Citrix Server	DELL 2650	Windows 2000 Server
numsctx029.nissu.nasa.gov	Citrix Server	DELL 2650	Windows 2000 Server
nbstest01.nissu.nasa.gov	Citrix Server NBS Test	DELL 2650	Windows 2000 Server
unknown location		DELL 2650	Windows 2000 Server
unknown location		DELL 2650	Windows 2000 Server
nbstest02.nissu.nasa.gov	Citrix Server NBS Test	DELL 2650	Windows 2000 Server
numsapp002.nissu.nasa.gov	Citrix Server	DELL 2650	Windows 2000 Server
numsctx041.nissu.nasa.gov	Citrix Server	DELL 2650	Windows 2000 Server
numsapp001.nissu.nasa.gov	NBS Test Server	DELL 2650	Windows 2000 Server
numscxm001.nissu.nasa.gov	Citrix Manager (Data Collector)	DELL 2650	Windows 2000 Server
NBS01	NBS	DELL 2650	Windows NT 4.0 Terminal Server
NBS04	NBS	DELL 2650	
NBS06	NBS	DELL 2650	Windows NT 4.0 Terminal Server
WEB05	Ebudget	DELL 2650	Windows 2000 Server
numscxm003.nissu.nasa.gov	DMZ Citrix Server	DELL 2650	Windows 2000 Server
numscxm004.nissu.nasa.gov	DMZ Citrix Server	DELL 2650	Windows 2000 Server
numscxm005.nissu.nasa.gov	DMZ Citrix Server	DELL 2650	Windows 2000 Server
numscxm006.nissu.nasa.gov	DMZ Citrix Server	DELL 2650	Windows 2000 Server
numsadc004.nissu.nasa.gov	DMZ Domain Controller	DELL 2650	Windows 2000 Server
numsadc005.nissu.nasa.gov	DMZ Domain Controller	DELL 2650	Windows 2000 Server
numsadc006.nissu.nasa.gov	DMZ Domain Controller NO PWR	DELL 2650	Windows 2000 Server
numstgw001.nissu.nasa.gov	Tivoli Gateway Server	DELL 2650	Windows 2000 Server
numlcms001.nissu.nasa.gov	Pre-Stage Entrust 6.0 Server	DELL 2650	Windows 2000 Server
numlinf001.nissu.nasa.gov	Pre-Stage ACE Server	DELL 2650	Windows 2000 Server
numladc001.nissu.nasa.gov	Pre-Stage Domain Controller	DELL 2650	Windows 2000 Server
numlinf001.nissu.nasa.gov	Pre-Stage Infrastructure Server	DELL 2650	Windows 2000 Server
numlexc001.nissu.nasa.gov	Pre-Stage Exchange 5.5 Server	DELL 2650	Windows 2000 Server
numlexc002.nissu.nasa.gov	Pre-Stage Exchange 2000 Server	DELL 2650	Windows 2000 Server
numlsql001.nissu.nasa.gov	Pre-Stage SQL 2000 Server	DELL 2650	Windows 2000 Server
numlrap001.nissu.nasa.gov	Pre-Stage Rapport Server	DELL 2650	Windows 2000 Server
numlctx001.nissu.nasa.gov	Pre-Stage Citrix Server	DELL 2650	Windows 2000 Server
numlctx002.nissu.nasa.gov	Pre-Stage Citrix Server	DELL 2650	Windows 2000 Server

Server Name	Purpose	Model	Server OS
numlbac001.nissu.nasa.gov	Pre-Stage Veritas Backup Server	DELL 2650	Windows 2000 Server
numstiv001.nissu.nasa.gov	Tivoli Server with Oracle DB	IBM P-Series 7026-6H0	IBM AIX
numstiv002.nissu.nasa.gov	Tivoli Server with Oracle DB (Hotspare)	IBM P-Series 7026-6H0	IBM AIX
numsnet001.nissu.nasa.gov	Tivoli Netview Server	IBM P-Series 7026-6H0	IBM AIX
numsnet002.nissu.nasa.gov	Tivoli Netview Server	IBM P-Series 7026-6H0	IBM AIX
Numsora001.nissu.nasa.gov	Oracle Database Server	Sun v480	Solaris, Oracle 9i

3.3.5 Russia IT Services

The Russian Support Project covers planning, implementation and sustaining support for NASA program and project requirements in Russia, Commonwealth of Independent 9 States (CIS). The infrastructure in Russia consists of basic telecommunications and end user ADP services that are capable of delivering video, voice, data and mission operations services.

The locations receiving services in the Moscow area include the NASA Moscow Liaison Office at the U.S. Embassy, Volga Apartments, Khrunichev State Research and Production Facility, Moscow Mission Control Center, the Russian Space Corporation - Energia, Gagarin Cosmonaut Training Center, Renaissance Hotel, Institute for Biomedical Problems, and the Institute for Space Research and the Russian Space Agency.

The NASA Information Services Network (NISN) Russia Services Project is a Marshall Space Flight Center (MSFC) Center Operations Directorate project performed by personnel from MSFC's Program Information Systems Mission Services (PrISMS) contractor. The project staff, referred to as the Russian Services Group (RSVG), performance requirements are defined in the project's PrISMS task order.

The Russian Services network is composed of three parts. The sum of the three parts provides fiber network connectivity from the Mission Control Center at Johnson Space Flight Center (MCC-H) and the Marshall Space Flight Center to the Mission Control Center-Moscow and nine other sites in the Moscow area. The first part of the network is logically identified as the network within the Continental US, terminating at the cable-heads (the points of demarcation to the transatlantic circuits) on the eastern coast of the US. The second network section is called the transatlantic route, and consists of the network paths from the eastern US, across the Atlantic Ocean, through Europe and ST Petersburg to Moscow, Russia. The third portion begins in the Moscow area (from the telecommunications hub near Ostankino Tower) to nine sites in-and-around Moscow to include a tail circuit to the Russian launch facilities in Baikonur, Kazakhstan.

The Russian Project network infrastructure is divided into three circuits. Two circuits service the mission and administrative needs of Johnson Space Center (JSC) and one circuit services the network requirements of Marshall Space Flight Center (MSFC). An additional path is found between MSFC and JSC, which is not considered a part of

the Russian Services Network, but is used to facilitate mission and administrative data from Moscow to JSC if a communication failure occurs in the direct routes from JSC to Moscow.

The customer base is as follows:

a. NASA Program/Project Offices
b. International Space Station Program Office, Johnson Space Center
c. Mission Operations Division, Johnson Space Center
d. Astronaut Training Division, JSC-Space Shuttle Program Office, JSC
f. Life Sciences Office, Johnson Space Center (Code U)
g. International Partners Office, Johnson Space Center
h. NASA Space Sciences - (Code S)
i. EOS (Code Y and Goddard) --Office of Life and Micro-gravity Sciences and Applications, NASA Headquarters (Code U)
j. Mission Operations Lab - Payloads, Marshall Space Flight Center

3.3.5.1 NASA Moscow Liaison Office-United States Embassy (NMLO)

The NASA Moscow Liaison Office (NMLO) was established in 1994 for the purpose of providing effective in-country coordination on all aspects of NASA's increased cooperative activities in aeronautics and space with its Russian counterparts. It is located at the U.S Embassy in Moscow.

NASA's cooperative activities with Russia in all fields, including but not limited to human space flight, are significant. The NMLO is the focal point for NASA’s administrative presence in Russia, and represents the Agency across all Centers and areas of endeavor.

The NMLO office is provided connectivity to the Russian services network via a fiber optic network. The Circuit originates in the NASA administrative Hub at ITMC and is connected via E1 at the Embassy. The fiber optic system enters the Embassy at the South Gate and is connected via fiber modem to an equipment room in the area of the NASA office. Services offered span the complete range of services to include data, voice, low bandwidth video, telephone and fax. The NMLO area is also the secondary server location for Russian in-country services, containing a secondary Domain Controller, Email and Web servers and Domain Name Services.

3.3.5.2 Volga Apartments (NASA Residence)

The Volga Apartments-Hotel is a three star complex consisting of (16 floors, 230 flats) built in 1977 and renovated in 1990. The hotel is located in a quiet and secure area of Moscow, not far from the city center and serves as the residence of NASA and contractor personnel living in Moscow on a permanent or extended stay.

The Volga offers one, two and three room apartments that are furnished for the occupants. Within the Volga Complex, each apartment is provided with data and

telephone service, providing the occupants local service to the United States. Available in the Volga is a furnished conference room with audio teleconferencing, low bandwidth video, VCR and DVD, fax, and printing services.

The Volga Complex is provided connectivity to the Russian services network via a fiber optic tail circuit. The Circuit originates in the NASA administrative Hub at ITMS and is connected via E1 to Volga Apartment 61. From Apartment 61, services are routed via Ethernet cabling to the roof then downward to the living quarters and Apartment 99-conference center.

3.3.5.3 Gagarin Cosmonaut Training Center (GCTC)

The Gagarin Cosmonauts Training Center is located at Star City. Star City is an extensive complex of service and office buildings, where training of Russian and foreign cosmonauts is being carried out. Star City offers facilities for work and leisure for its citizens and guests. It has a secondary school, kindergarten, medical institutions, department stores, various services, and modern hotels and sports facilities. NASA's astronaut corps trains at a location within GCTC called "Territory C" living in cottages and apartments in and around the training facility.

The GCTC office is provided connectivity to the Russian services network via a fiber optic network. The Circuit originates in the NASA administrative Hub at ITMC and is connected via E1 to GCTC. Services offered span the complete range of services to include data, voice, low bandwidth video, telephone and fax.

3.3.5.4 Rocket Space Corporation-Energia (RSC-E)

RSC-E is a private Russian corporation. The RSC-E office is provided connectivity to the Russian services network via a fiber optic network. The Circuit originates in the NASA administrative Hub at ITMC and is connected via E1 to RSC-E. Services offered span the complete range of services to include data, voice, and low bandwidth video, telephone and fax. RSC-E is also the Russian Services gateway location to the Russian Space Agency launch location at Baikonur.

3.3.5.5 Khrunichev State Research and Production Space Center

The Khrunichev State Research and Production Space Center consist of two of the largest Russian produces of aviation and rocket and space technology - the Khrunichev Machine building plant and the "Salyut" Design Bureau.

The Khrunichev Space Center provides work for 70 subcontractors. The Space Center provides commercial launch capability (Proton rocket) supplying heavy lift capacity for foreign nations such as the United States.

The Khrunichev office is provided connectivity to the Russian services network via a fiber optic network. The Circuit originates in the NASA administrative Hub at ITMC and is connected via E1 to Khrunichev. Services offered are carrier

services, providing multi-service traffic as a connection rather than in support of NASA or contractor personnel. This site, which built the ISS service module, is a member of the ISS team but does not continue to build components for the Space Station effort.

3.3.5.6 Russian Space Agency

The RSA was formed after the breakup of the former Soviet Union and the dissolution of the Soviet space program.. Currently, the RSA has centralized control of Russia's civilian space program, including all manned and unmanned nonmilitary space flights.

The RSA employs about 300 people,. The prime contractor used by the RSA is the Energia Rocket and Space Complex, which owns and operates the Mission Control Center in Kaliningrad.

The RSA office is provided connectivity to the Russian services network via a fiber optic network. The Circuit originates in the NASA administrative Hub at ITMC and is connected via E1 to RSA. Services offered span the complete range of services to include data, voice, low bandwidth video, telephone and fax.

3.3.5.7 Renaissance Hotel (Penta)

The four-star Renaissance Moscow Hotel (12 floors, 475 rooms), built in 1991, is located in 10 minutes from the center of Moscow, close to the Olimpiysky sport complex. The hotel is a part of the Renaissance Hotel Group.

The Penta Hotel is used by NASA and contractor personnel during temporary stays in and around the Moscow area. The rooms in the Penta furnished to NASA personnel contain a full suite of services to include data and telephone with low bandwidth video, audio conferencing and fax services provided in a NASA office area.

3.3.5.8 Mission Control Center-Moscow (MCC-M)

The Mission Control Center (MCC-M) Moscow is used to support relevant Space Shuttle missions and the International Space Station. The flight control room (HSG) is where flight controllers get information from computer workstations or from projected displays.

The prime contractor used by the Russian Space Agency is the Energia Rocket and Space Complex, which owns and operates the Mission Control Center and supports International Space Station operations.

Connectivity to the Russian services network via a fiber optic network, microwave circuit, and a copper 100mb circuit to the MMCC at RSC-E provide Service to the MCC-M. The Circuit originates in the NASA administrative Hub at ITMC and is connected via E1 to MCC-M. Services offered span the complete range of services to include data, voice, and low bandwidth video, full motion video (ViTS) telephone and

fax. The services are broken down into two distinct groups; mission and administrative. Mission services consist of data and voice loops. Administrative services consist of low bandwidth video, SIP data, telephone, and full motion video.

3.3.5.9 Institute of Bio-Medical Problems 1 (IBMP-1)

The Institute for Biomedical problems performs fundamental and applied scientific-research, experimental-design and technological activities. Activities include training and retraining of researchers, in the field of aviation, space and sea medicine and safety, and, protection of, rescue, and life-support to people under emergency conditions. The Institute also collaborates with scientific-research institutions in Russia and foreign nations.

The IBMP-1 office is provided connectivity to the Russian services network via a mico-wave network. The Circuit originates in the NASA administrative Hub at ITMC and is connected via E1 to IBMP. Services offered include data, voice and fax. No NASA personnel are resident at this location.

3.3.5.10 Space Research Institute, Russian Academy of Sciences (IKI)

As the leading organization of the Russian Academy of Sciences in the field of investigations of Outer Space, Solar System planets and other objects of the Universe, Space Research Institute (*IKI*) is primary in charge of long-range planning and elaboration of space research programs.

The Institute collaborates with leading scientific-research institutions in Russia and foreign nations and is provided access to the Russian Services Network to facilitate cross talk with NASA and NASA contractor personnel.

The IKI office is provided connectivity to the Russian services network via a fiber optic network. The Circuit originates in the NASA administrative Hub at ITMC and is connected via E1 to IKI. Services offered include data, voice and fax. No NASA personnel are resident at this location.

3.3.5.11 Baikonur Area 254 Offices

Baikonur Kazakhstan is Russia's largest cosmodrome. It is the only Russian Space Agency Facility used for manned launches, having facilities for the larger Proton, N1, and Energia launch vehicles.

The spaceport ended up on foreign soil after the break-up of Soviet Union. The official designations NIIP-5 and GIK-5 are used in official Soviet histories. It was also universally referred to as Tyuratam by both Soviet military staff and engineers, and the US intelligence agencies. Since the dissolution of the Soviet Union the Russian Federation has insisted on continued use of the old Soviet 'public' name of Baikonur. In its Kazakh (Kazak) version this is rendered Baikonur.

The Baikonur Cosmodrome extends for 85 km from North to South, and from 125 km from East to West, a territory as great as Moldova. Aside from dozens of launch pads it includes five tracking-control centers, 9 tracking stations, and a 1500 km rocket test range. RSC-E is the Russian Services gateway path to the Russian Space Agency launch location at Baikonur. No direct connect exists to the Russian Services network. Connectivity is facilitated through a data link segregated by a firewall LAN segment.

3.3.5.12 JSC Buildings 30 and 17

RSVG has network equipment located at Johnson Space Center to support both mission and administrative services. Two transatlantic E-1's terminate at JSC, one dedicated to mission services; the other used for administrative services and services as a backup in the event the mission circuit fails. The JSC CSOC gateway is located in building 17. RSVG equipment located there is used in support of Video Teleconferencing and SIP IP data. This equipment includes Cisco routers, ViTS Codecs and a N.E.T. Promina 400. Mission services are in building 30. RSVG equipment located here is used to support mission data links and mission voice loops. This equipment includes channel banks, Cisco routers and N.E.T. Promina 400 and Promina 800.

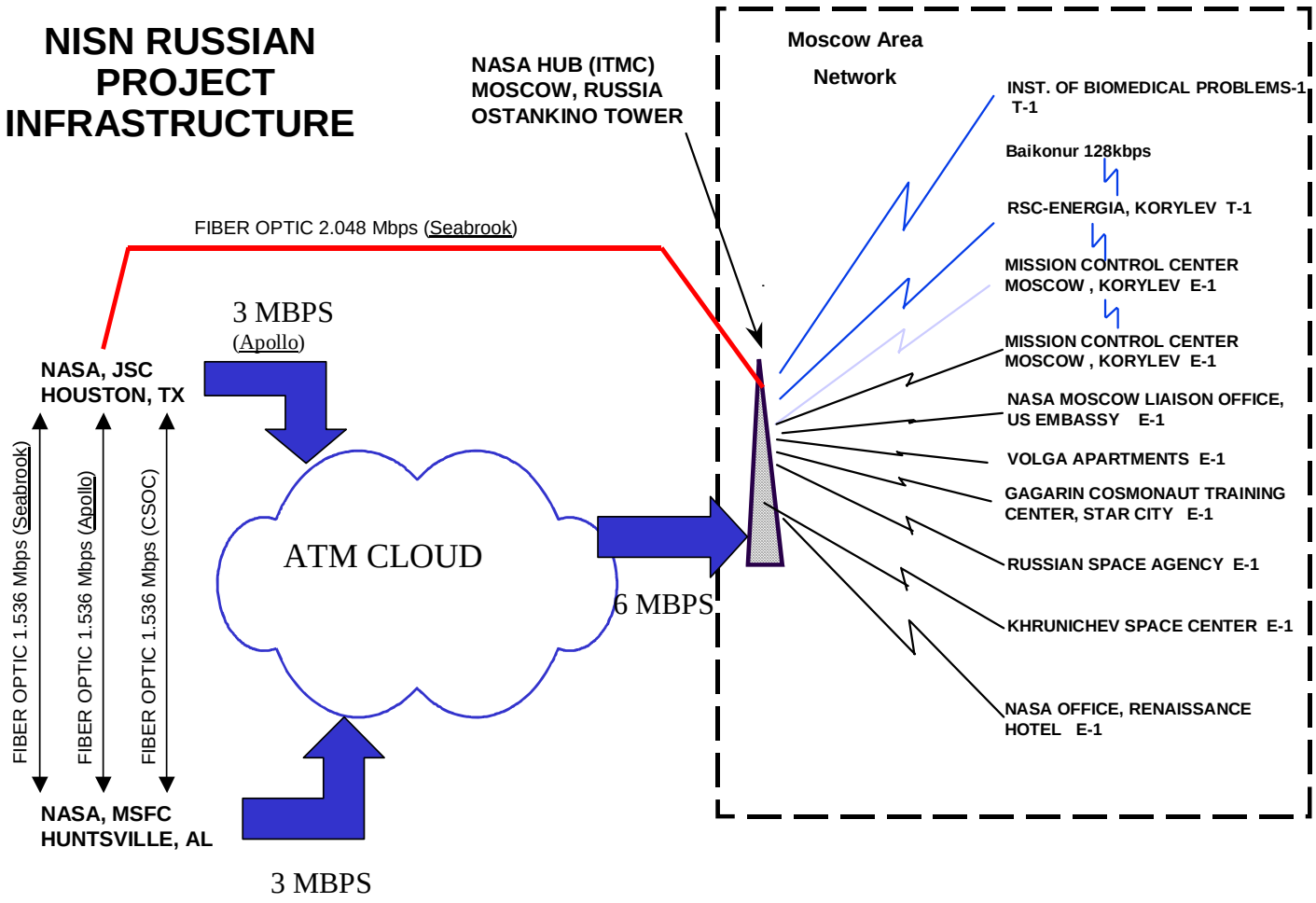
3.3.5.13 MSFC

RSVG has network equipment located at MSFC in support of administrative services. One transatlantic E-1 terminates at MSFC. The MSFC CSOC gateway is located in building 4207. RSVG equipment located there is used in support of PIP IP data, phone services and LBV connections. This equipment includes Cisco routers, a Nortel Meridian PBX and a N.E.T. Promina 800. Network firewalls are located at MSFC, as well as in Russia.

3.3.5.14 Russian IT Security

RSVG IT Security procedures apply to all Russian network infrastructure and is defined by RSVG procedure 301-001, Russian Services Procedure and Guidelines AD33 Security of Information Technology. The directive is intended for use by civil service and to ensure that safeguards for the protection of the integrity, availability, and confidentiality of contractor users of Russian Services Information Technology (IT). It provides direction for designed IT resources, including data, information, applications, and systems, to ensure those resources can be properly integrated for supporting NASA missions. It is specifically designed to assist those with assigned IT security responsibilities to adequately fulfill those responsibilities.

3.3.5.15 NISN Russian Project Infrastructure



3.3.5.16 Russian IT Services Equipment Distribution

		WAN SERVICES					LAN SERVICES							END USER					ANCILLARY				
	UPS	IDNX Nodes	Channel Banks	Routers	Telephone Switches	Video Teleconf (LBV/ViTS)	LAN Switches	Hubs	NT Servers	SUN Servers	Firewalls	Tape Backup Units	Printers	Desktops	Laptops	Facsimile Machines	Telephones	Satellite Phones	Smart Boards	TVs	VCRs	Projectors	Conference Room A/V
Baikonur	3			1									1		3	1	2						
Embassy	1	1	1	1				3					1	8	2	1	12	1					
GCTC	1	1	1	2	1	3	5		1		1	1	20	48	6	6	78	1		6	4		
IBMP	1	1	1	1		1		1						4		3	10			2	1		
JSC	1	2		3																			
Khrunichev	1	1	4	1		1		5					2	12		1	37			2			
MCCM-Admin	1	1	2	1	1	1	3	1	2		1	2	6	41		6	64		1	1	1	1	1
MCCM-Mission	1	1	2	2		1		4															
MSFC	1	1		2					3		2	1	1										
Penta	1	1	3	1			3						1	3		2	58						
RSA-NASA						1		2					2	5		1	7					1	1
RSA-Russia	1	1	2	1		1	3				1		4	4	3	2	22			2	1		
RSCE	2	1	2	1	0	2				5			13	46	10	4	36			5	2	1	1
NASA HUB	5	2	1	6	1	1					1			1			3						
Volga	1	1	1	1	1	1	2		6			1	13	50		6	56	1		2			1
Other															35								
TOTALS	21	15	20	24	4	13	16	16	12	5	6	5	64	222	59	33	385	3	1	20	9	3	4

Note: All quantities are representative of the equipment located at each site, but do not depict spares or equipment in the process of being excessed or replaced with new equipment.

3.3.5.17 NASA - Russia IT and Communications Services

Wide Area Network

- **Dedicated (Mission) Voice**
- **Switched Voice**
- **Routed (Mission) Data**
- **Routed (Admin) Data**
- **Video Teleconferencing (VTC)**
- **Facsimile**

Local Area Network (LAN)

- **Electronic Mail/SMTP Gateway**
- **Anti Virus Protection**
- **Manual Procedure Viewer (MPV)**
- **Internet Access/SMTP Gateway**
- **Domain Name Services (DNS)**
- **Data Transport (Telnet/FTP)**
- **Data Storage/Retrieval**

IT Security

- **Firewalls**
- **Network Metrics**
- **Web Trending**
- **Incident Response**

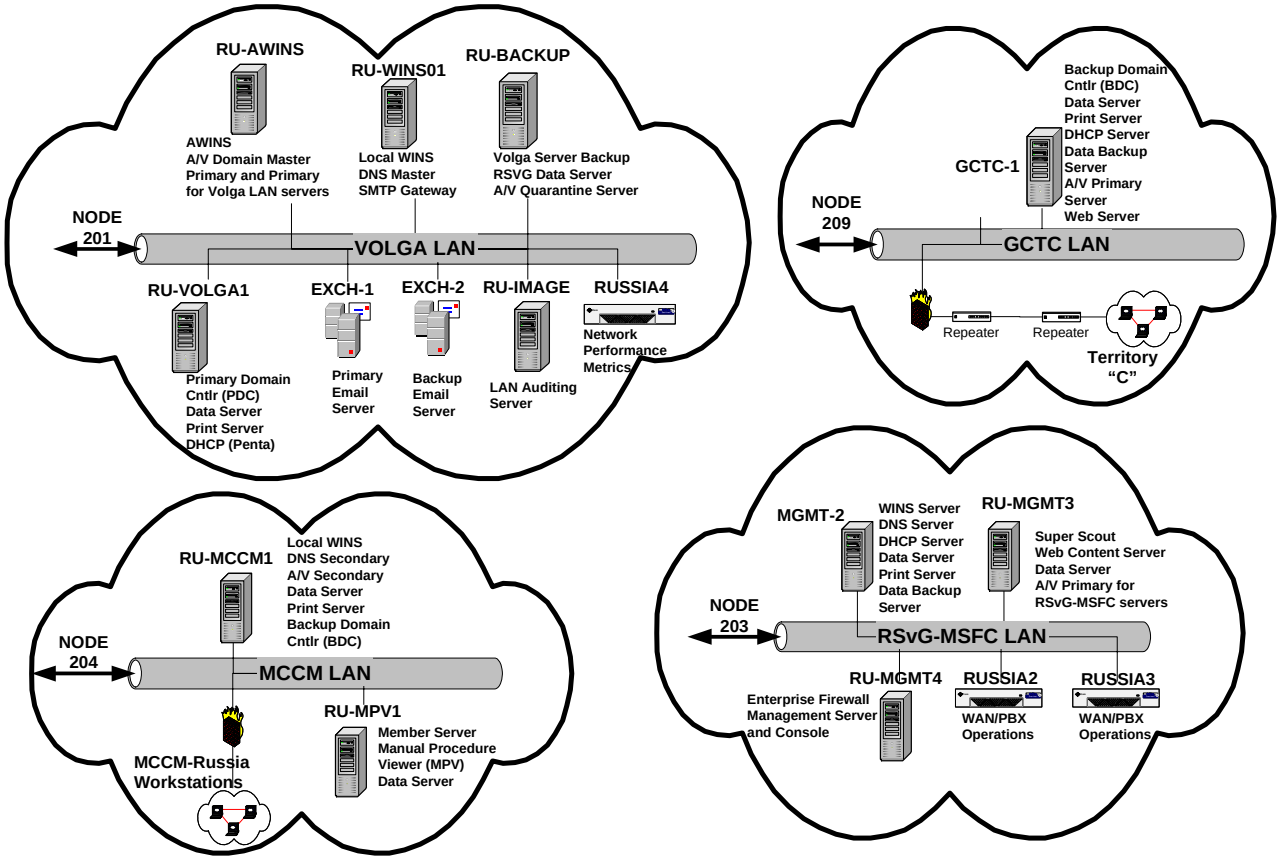
End User Support

- **PC/Workstations**
- **Laptops**
- **Printers**
- **Telephones**
- **Conference Room Services**

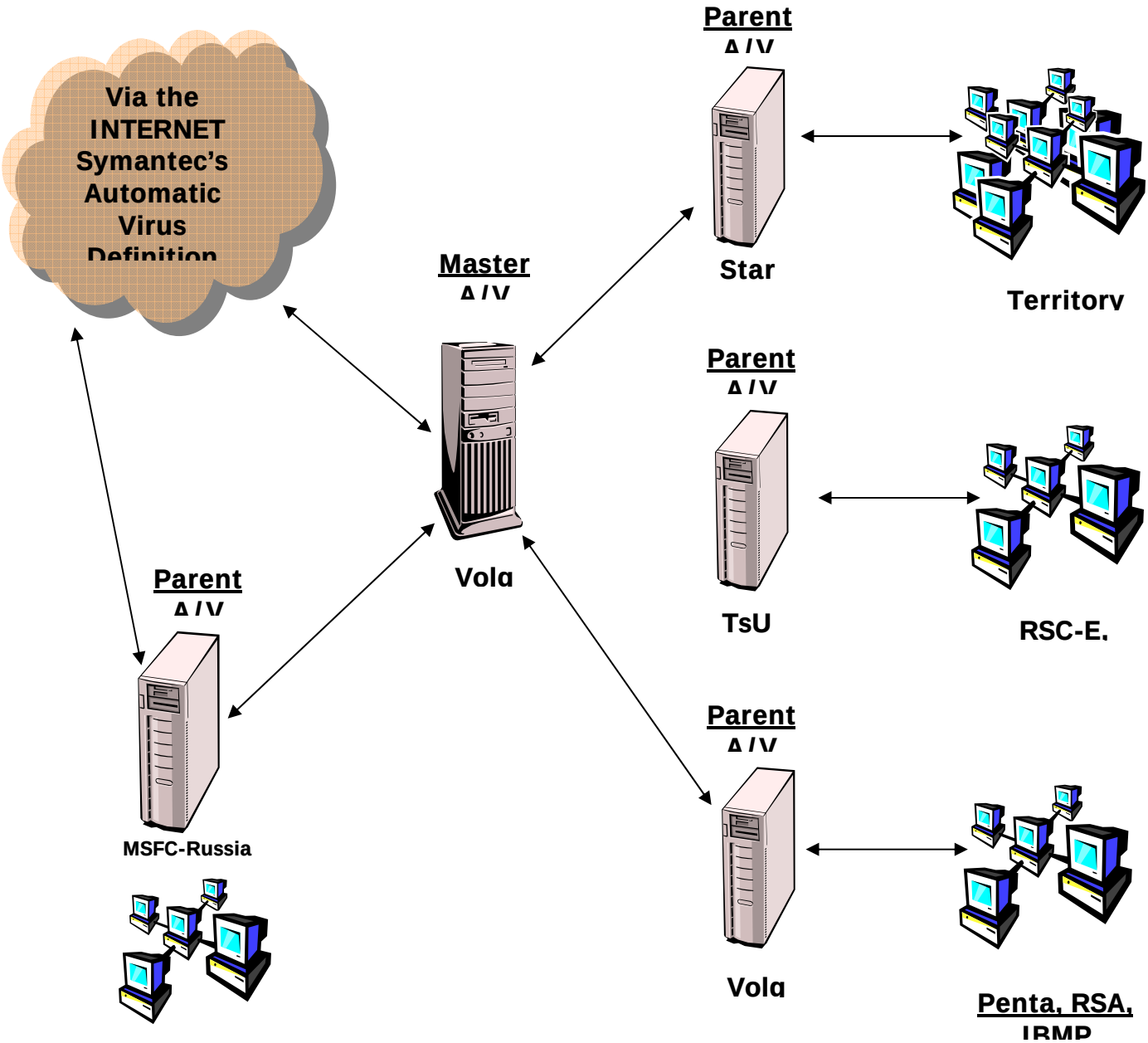
Plus: **- Mission Support for the Houston Support Room (HSR) at MCC-M**
- 24/7 Network Monitoring and Help Desk Support
- WAN/LAN and Secure NT Domain/Email/Web Server Administration
- Export Control
- Cradle to grave (one stop) procurement, engineering, installation, maintenance, and support for IT and telecommunications hardware/software.

3.3.5.18 Servers and Service Locations

Servers and Service locations on Network LANs which support NASA-Russia IT and Telecommunications.



3.3.5.19 Diagram of the Anti-Virus Protection



3.3.5.20 Contracting and Subcontracting in Russia for IT and Telecommunications Support.

Contracting and subcontracting in Russia presents some unique challenges that have been overcome by direct negotiations between Government Agencies in Russia and NASA officials. These challenges have required establishment of unique methods to accommodate these Russian business practices. Initially, it must be understood that the Russian Government Space Agencies and companies do not recognize a contractor as the legitimate voice for making agreements with foreign entities. They do, however, understand the Government and Contractor relationships and how payment and contracts are arranged. Therefore, when contracts are being negotiated for modification, NASA will be involved with all elements except where money is being negotiated. This does not exclude the contractor from contacting or working with the Russian Officials. Most companies in America do not have the authority to contract directly with Russian Government or Russian Owned Companies. Within Russia, all companies must have a 51% minimum Russian ownership, even when partnered with American Companies.

Currently, General Dynamics is the prime sub-contractor to CSC for Russia Services. General Dynamics handles all circuit contracts and all the sub contracts with the Russian Government and Russian Companies. Telcom Center is the only Russian Company with Government affiliation that has the necessary Russian licenses and approval to provide Russia In-Country circuits and on-site services and support for NASA. At every location in Russia, where NASA has equipment, there is a subcontract between Telecom Center and that location (i.e. RSA, Mission Control Center, GCTC, IBMP, etc.) to provide facilities and on-site maintenance assistance. At RSC-Energia, additional IT support is provided for systems that handle ISS Cargo Flow and ISS Inventory systems that interface with NASA database systems in Houston which handle the Manifest Data and correlated Cargo Flow systems. Thus, the current structure of the contract is this: CSC-General Dynamics – Telcom Center – End sites. NASA reimburses CSC for these costs. General Dynamics has the authority for purchasing and negotiation of costs directly with Telcom Center. Telcom Center has the authority to contract and negotiate costs for the contracts at each of the Russia Government and Company sites. Telcom Center also has the agreements in place that allow their personnel on-site for repairs and assistance to CSC.

It is imperative that these relationships and contract agreements be understood. Some very difficult lessons have been learned when trying to circumvent this structure. Several vendors have failed which placed NASA into a Mission vulnerability (i.e. Global One, MCI, and Global One Russia). The only elements of these contract agreements which can be modified or changed, are the prime contractor and subcontractor, General Dynamics. Currently, the General Dynamics contract has option years which can extend the present subcontract. Our current contract structure and services are critical to the operations and safety of the ISS and it's crewmembers. NASA has tried numerous vendors, where service has not met expectations and major problems

have been created. The current contract arrangements with General Dynamics and the other subs is the most proficient arrangement NASA has been implemented to date.

Prior to any discussion with the sub contract entitles in Russia by contractor bidders, please notify, the NSA – NISN Russia Services Group Manager. This will ensure successful discussions and will help avoid confusion and misunderstandings with our Russian Government counterparts. If you do not work through NASA to arrange any of these discussions, difficulties will most likely occur.

3.3.6 Integrated Network Laboratory (INL)

The WAN Network Technology is supported by the Integrated Network Laboratory (INL), the Network Integration Laboratory Environment (NILE), the Video Teleconferencing System Laboratory (ViTS), and the Ames Network Technology Laboratory (ANTL). The INL is located at MSFC, Building 4207 and supported by NISN. The NILE is located at GSFC and is a cooperative lab between GSFC and NISN. The VITS is located at the CSOC offsite facility in Huntsville, AL. It is supported by NISN and CSOC, Arcata. The ANTL is located at Ames Research Center (ARC) and is supported by NREN.

The INL is a WAN testbed that is used to develop and support the NASA Prototype Network (NPN). The mission of the NPN consists of several parts such as supporting technologies to further Agency technical goals, collaborative efforts with NASA Research and Education Network (NREN) and other research networks, and supporting the WAN architecture prototyping. There are currently 8.25 FTEs support this effort and the collaborative efforts with the NILE, VITS, and the ANTL.

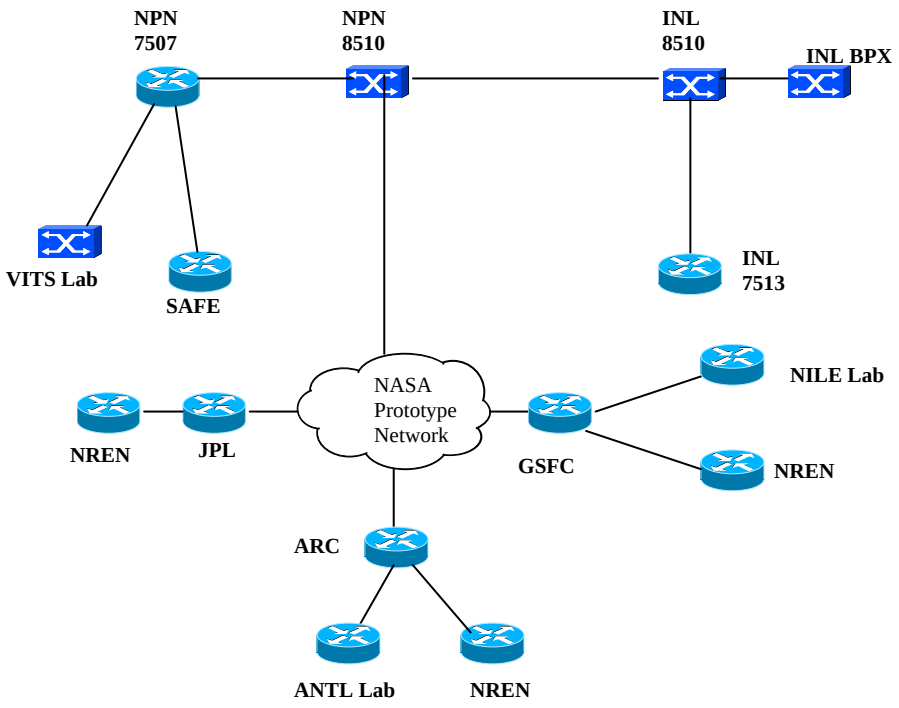
The relationship between the NPN, NREN and the operational NISN network is broken down as follows. Advanced Applications, technologies and future NASA Enterprise goals are given to NREN. NREN develops the proof of concept and performs any technology and applications research and then conducts any demonstrations. The NPN's role is then to provide a stable network for end-to-end application prototyping and determine any operational costs, scalability, security concerns, and standards for implementation. The operational NISN network would then be involved in packaging the service or upgrades to implement on the operational network and developing any operations procedures and training materials.

A sample of projects supported by the INL and NPN for FY03 include:

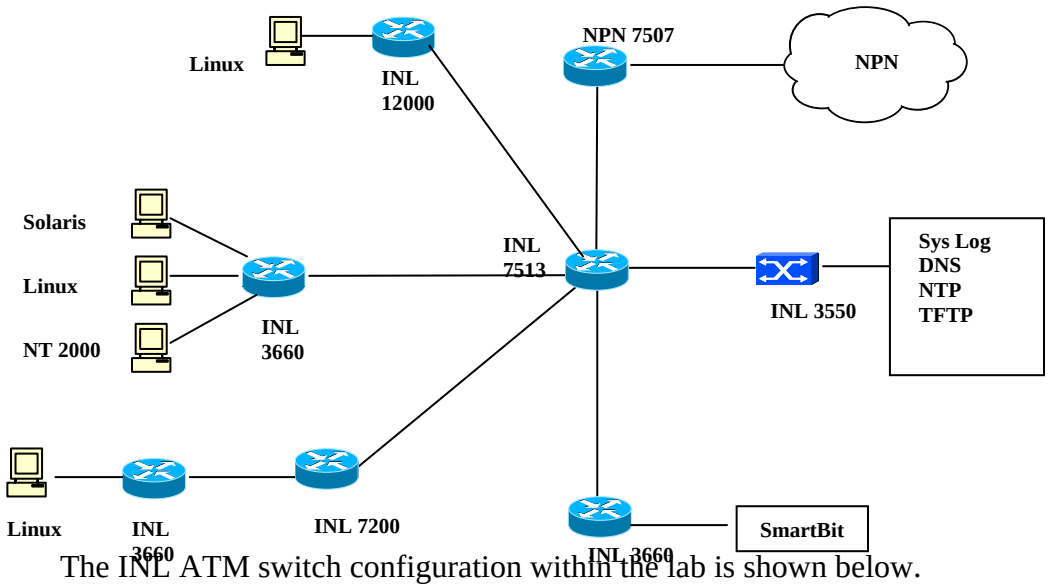
a. Secure Advanced Federated Environment (SAFE): provide secure applications between the SAFE nodes.
b. NASA Collaborative Infrastructure (NCI): support the "One NASA" philosophy by interconnecting the NASA centers with one system that meets interactive collaboration requirements.
c. Internet Protocol version 6 (IPV6): move IPV6 to WAN testbed and implement systems and routing utilizing the Agency IPV6 address space.
d. Protocol Testbed: analyze protocols under a high latency environment.

e. System Modeling: analyze system prior to implementation to determine impacts upon a network.
f. Virtual Laboratory (VLAB) demonstration: in support of the Space Launch Initiative (SLI) collaborative engineering system design.

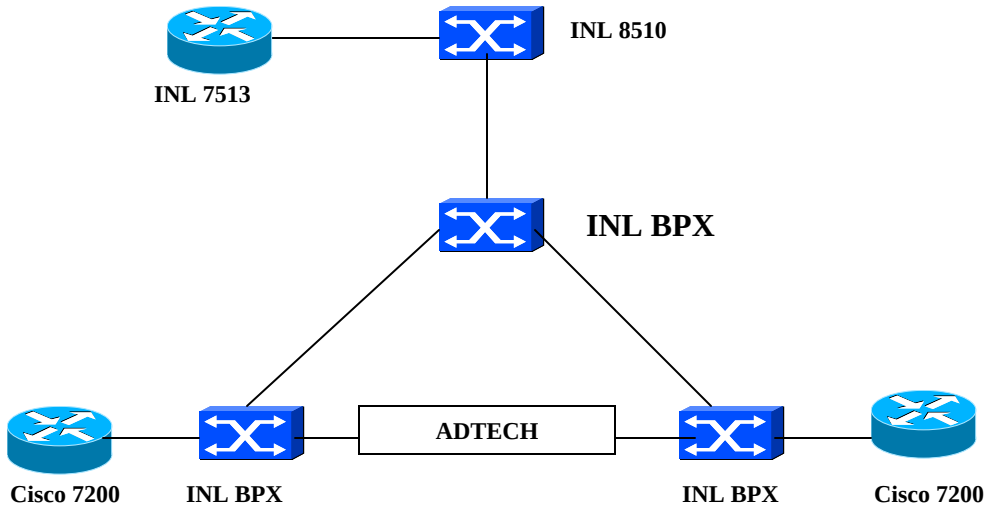
A drawing of the current NPN is shown below.



A drawing of the INL layer 3 configuration is shown below.



The INL ATM switch configuration within the lab is shown below.



3.3.7 NASA Information Systems Services Utility (NISSU)

3.3.7.1 Information Mission Control Center (IMCC)

The NISSU, now referred to as the NASA Computing and Communication Services (NCCS), is a new IT infrastructure designed to provide end users maximum availability, performance, and security end-to-end as they perform NASA day-to-day business. An intrinsic part of NISSU/NCCS is the Information Mission Control Center (IMCC) that has full visibility and control of NISSU/NCCS. The IMCC is the central point from which all desktops, computing devices and network activity is monitored and controlled, IT security is enforced and help desk inquiries are resolved for all NISSU/NCCS users. NISSU/NCCS end users always call the IMCC for trouble resolution. The IMCC is chartered to expend every effort to resolve the majority of troubles reported on the first call.

Overall management responsibility for IMCC operations is with NASA. NASA delegates and assigns the day-to-day operations responsibility to NASA employees who will function as duty managers. In addition, the contractor, Program Information Services Mission Services (PrISMS), has an IMCC Duty Manager on duty at all times; one assigned to each shift. The IMCC Duty Manager provides technical direction as well as operations direction to PrISMS personnel assigned to the IMCC.

The IMCC combines typical Tier I and Tier II structures that are found in help desk environments. The combination of Tier I and Tier II provides support personnel and subject matter experts from various functional organizations. The combination of these functions and skill mixes in one physical location provides the required staffing to support a first-call resolution for trouble calls.

Tier I – The first level of support within the IMCC is the Help Desk Analyst.

Tier II – The second level of support within the IMCC is the Functional Analyst from one of the other four functional areas identified above. Tier II support is responsible for system related analysis and problem resolution, root cause analysis and escalation to Tier III support.
Tier III – The appropriate hardware and software vendors outside of the IMCC.

Matrix personnel come from functional areas and are physically located within the IMCC. Those functions include:

a. Help Desk, Responsible for Tier I support by answering calls to the IMCC, assigning a problem report (trouble ticket), resolving problems when appropriate and routing calls to the appropriate Tier II support.
b. Network Management, Responsible for the daily operations of the network and for all network equipment installations, installation of router configurations, and racking and pulling cable as necessary. Also, provides engineering support for designing and configuring new service requirements based on new customer requirements.
c. IT Security NISN Security Operations Center (NSOC), Responsible for, but not limited to, the following:
    1. Handling IT Security violations (to include Trouble Ticket resolution)
    2. NASA Incident Response Center (NASIRC) after-hours phone support
    3. Handling planned and unplanned NSOC absences (phone forwarding)
    4. Handling Trouble Tickets that are transferred to IT Security
    5. Release of IT Information
d. Secure ID / Account Management, Responsible for the administration of NISSU/NCCS user account and Secure Identification (ID) token distribution.
e. Server Operations, responsible for operations and maintenance support of NISSU/NCCS server services.
f. NASA Inspector General.

In order to meet the IMCC objectives, a suite of enterprise network and systems management tools have been procured and implemented. The foundation of these tools, *Tivoli*, allows:

a. Secure Access - assigns divisible administrative rights in providing access.
b. Single Integration - provides common interface to other framework services.
c. Task Management - provides the capability to support task execution in the performance of management functions, including scheduling and automation.
d. Data and Message Communication - provides message and data exchange between the framework and disciplines.
e. Integrated Console - provides a common administration interface across different management platforms or other entry points into the management environment.

f. Common Repository - provides and supports a platform independent management information database that will operate across the target management platforms.
g. Software Distribution - provides and supports the capability to distribute management information and associated files to the distributed platforms making up the ISM management infrastructure.

3.3.7.2 NASAnet

Of the three components of the NISSU/NCCS effort (servers, IMCC, and network), the future of the NASAnet network infrastructure is most uncertain. The Agency is currently undertaking an extensive business case analysis of the benefits/costs of the Packet Over SONET (POS) infrastructure of NASAnet versus the ATM infrastructure of NISN. Also, the Agency is extensively testing the NASAnet performance parameters. A decision as to the future of NASAnet is expected in mid April. Therefore, the following data is provided as information only. Further, information will be provided following the Agency's decisions on NASAnet.

The need for a more secure Information Technology has become apparent with increases in unauthorized access attempts and cyber terrorism on NASA IT resources. NASA has requirements to protect sensitive data that is shared between NASA centers. Examples of such sensitive information include aerospace technology research, STS flight data, and financial information. While certain areas of the Agency have achieved some degree of security, the Agency as a whole still remains relatively vulnerable to many external and internal threats. Furthermore, with an increased level of threats and Agency-wide application implementations, the Agency needs to provide NASA programs an alternative to traditional network computing resources.

To meet the needs of the agency, the NASA CIO has requested that a new IT infrastructure be built to provide secure communications and computing resources to be shared by program and project offices to meet their security requirements and information technology objectives. The NASA Communications and Computing Services (NCCS) project office located at Marshall Space Flight Center provide the new infrastructure. NASAnet refers to the network infrastructure in support of NCCS.

The objective of the NASAnet is to provide an IP based Intranet available to all NASA field centers providing the greatest level security while still allowing open communication and collaboration within the Agency. To meet the stated objective, the NASAnet must provide:

a. State-of-the-Art IP based network employing industry best practices architecture and high quality operational characteristics.
b. Computing facilities providing program and project offices a hosting service with operational management and support.
c. Systems and Network Management functionality capable of providing Fault, Configuration, Accounting, Performance and Security functions

d. Intrusion Detection Services that detects activity that is different from a user's or systems normal behavior and also detects known intrusion techniques or system vulnerabilities.
e. Demilitarized Zone (DMZ) to prevent outside users from getting direct access to a NCCS computing resource.

Implementing solutions that addresses the five goals listed above will provide NASA and IT infrastructure capable of providing IP based voice, video and data services managed 24 hours and day 7 days a week in a secured environment.

Initially only subsets of centers are scheduled to utilize NASAnet services. The initial centers are:

a. Ames Research Center (ARC)
b. Glenn Research Center (GRC)
c. NASA Headquarters (HQ)
d. Johnson Space Center (JSC)
e. Kennedy Space Center (KSC)
f. Marshall Space Flight Center (MSFC)

NASAnet services will be offered at all centers as funding becomes available, to include:

a. Dryden Flight Research Center (DFRC)
b. Goddard Space Flight Center (GSFC)
c. Independent Validation and Verification (IV&V)
d. Jet Propulsion Laboratory (JPL)
e. Langley Research Center (LaRC)
f. Michoud Assembly Facility (MAF)
g. Stennis Space Center (SSC)
h. Wallops Flight Facility (WFF)
i. White Sands Complex (WSC)

NASAnet is an Intranet and therefore will not offer open access to the public Internet. Plans to offer Web proxy services in the DMZ will be offered at a later time.

3.3.8 IFMP

The Integrated Financial Management (IFM) Program (IFMP) is a Level 1 Program with an approved Program Commitment Agreement (PCA). The Marshall Space Flight Center (MSFC) IFMP Integration Project Office (IPO) provides management and technical leadership for the incorporation of individual Module Projects into the overall IFM system.

The Integration Project works directly with the IFM Program Director, NASA Headquarters, Code B, in the overall management of IFMP. The Integration Project

Manager also works closely with the Module Project Managers to ensure IFM subsystems will work in concert and will be implementable at NASA Centers.

3.3.8.1 IFMP General History and Summary

NASA's financial and human resources management systems process millions of transactions annually, with several thousand employees entering data. Lacking a transaction-based, integrated system for the entire Agency, NASA Centers have developed their own unique systems to support financial management activities. At this time, NASA's financial and business management environment is comprised of decentralized, non-integrated systems characterized by Enterprise and Center-unique policies, procedures, and practices. In general, data formats are not standardized, automated systems are not integrated or interfaced, and on-line financial information is not readily available to NASA managers. In addition, the cost to maintain these systems is very high since both data and software are replicated at each Center. In June 1989, the Office of Management and Budget (OMB) designated NASA's accounting systems as "high risk" due to lack of standardization and the need to modernize.

In 1988, NASA conducted a study to determine the feasibility of implementing a standard accounting system throughout the Agency. The study team developed a set of accounting and automated data processing (ADP) requirements based on federal and NASA financial references and evaluated several approaches. The team recommended that NASA develop the necessary software as opposed to purchasing commercial off-the-shelf (COTS) software or acquiring software developed by another government agency. When implemented the new NASA Accounting and Financial Information System (NAFIS) would provide financial information to program, project, and functional managers.

At the Center level, NAFIS would provide the capability to record and maintain detailed financial information. NAFIS supported the following Center level functions: General Ledger, Collection Register, Accounts Payable, Accounts Receivable, Funds Control, Property Management, and Travel. At the Headquarters level, the Agency-wide Reporting System will integrate, consolidate, reconcile, and provide summarized reports from the financial data transmitted by the Centers. System development began in 1989. In February 1995, NASA's CFO, with the concurrence of other NASA officials, canceled the NAFIS project. The potentially high cost of sustaining engineering along with new guidance from the OMB calling for agencies to consider commercially available software and cross-service agreements led management to conclude that canceling the NAFIS project was in the best interest of the Agency.

In 1993 the Agency, responding to mandates from the President's National Performance Review and by an internally staffed Zero Base Review Team, began a downsizing process for many of the administrative functions. Large reductions were defined and implemented presuming the Agency would be able to implement new streamlined business processes and deploy automated tools to maintain current service and performance.

After canceling the NAFIS project, NASA officials reviewed the findings and recommendations from the studies described above and analyzed the alternatives recommended by OMB: 1) Buy COTS financial management software that is already Joint Financial Management Program compliant; 2) Enter into cross-servicing agreements with other government agencies where data processing for certain functions, e.g., travel, payroll, procurement would be performed for NASA.

In February 1995, the NASA Chief Financial Officer (CFO) established the IFM Project Office at Headquarters to plan, coordinate, and manage all aspects of the work necessary to streamline and standardize business processes and to acquire and implement an integrated financial and human resources management system solution throughout NASA. In September 1997, NASA issued a contract for the implementation of a single integrated COTS solution to address a predominant number of the financial modules. At the time of contract award to KPMG, a new, uncompleted version of their Performance Series software was proposed as the backbone to an integrated system they would develop. The proposal included the coupling of a number of add-on components to the Performance Series software to enhance total system functionality. However, over the course of time the development and integration of the software proved to be unworkable, and the contract with KPMG was cancelled in 1999.

3.3.8.2 Current IFM Program Overview

In April 2000, the former IFM Project was reformulated into the IFM Program. NASA's priority in financial management systems is to significantly improve the Agency's business processes while complying with Federal mandates to deploy fully integrated and compatible Agency systems with standardized information and electronic data exchange to support program delivery, safeguard assets, and manage taxpayer’s dollars. The reformulated IFMP is to address the most critical financial management issues: improved service and higher quality customer products (accuracy, timeliness, and efficiency).

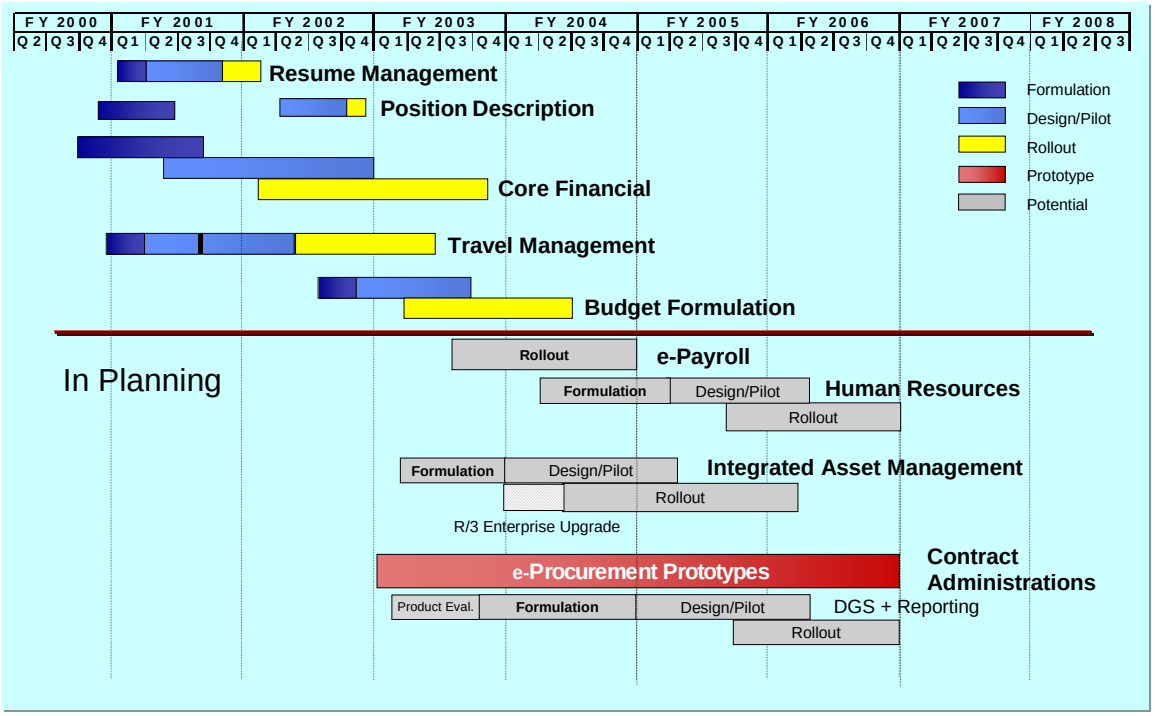
New financial management systems will allow NASA to comply with Administration (OMB Policy A-127, Joint Financial Management Improvement Program) and Congressional (GPRA, FFMS, FASAB) policies while directly contributing to implementation of the NASA Strategic Plan by improving the way NASA conducts business.

The business architecture consists of crosscutting integrated processes and coordinated data flow between individual functional areas and management levels. The software applications programs/systems that collectively support the business processes can be procured and implemented as individual projects as long as the integration requirements are well defined and managed during implementation. The scope for each subsequent project can evolve as a function of decisions made on the preceding project implementations. Currently the following software/functional modules have either been implemented or are candidates for implementation:

- Core Financial

- Contract Administration
- Budget Formulation
- Human Resources
- e-Payroll
- Position Description
- Resume Management
- Integrated Asset Management
- Travel Management

The current program schedule is as follows :



The IFMP Integration Project is required to ensure that the individual modules work together and collectively satisfy the Agency business drivers. The IPO is also responsible for maintaining the Agency business and software applications architecture, and designing and implementing the information technology architecture that supports the modules.

3.3.8.3 Integration Project Overview

The Integration Project is responsible for defining and implementing architecture that provides the integration necessary to accomplish each Module's Functional Drivers and thereby supporting the Agency's Business Drivers. In order to support the IFM Program goals, the Integration Project will define and maintain the IFM

business and applications architectures by working with the Agency Process and Module Project Teams in defining business processes and points of integration. In maintaining the IFM business and application architecture design, the Integration Project will facilitate the resolution of issues across business processes and define the applications that automate the business processes. The Integration Project will establish an integration architecture that will facilitate integration of IFM modules, legacy and external systems. This Integration Architecture will also position this Agency for future E-business initiatives. A metadata repository has been created by the Integration Project for Agency use in ensuring NASA processes and data are available for information exchange with customers and stakeholders.

In defining and maintaining the technical infrastructure, the Integration Project works with each Module Project to define technical requirements and to acquire hardware and software that is compliant with Agency Information Technology standards. To ensure that Agency Information Technology (IT) standards are met, the Integration Project works diligently with the Agency Chief Information Officer (CIO) and Integration Project Steering Committee (IPSC) throughout the IFM Program.

In order to increase Offerors' understanding of specific Integration Project/PrISMS responsibilities versus those of the module project /implementation contractor, the roles and responsibilities for the IFMP Budget Formulation Project are provided as follows:

Project Phase	Activities	Budget Formulation Project	Integration Project/PrISMS Contractor
Project Management		• Perform Risk Management for Budget Formulation risks • Identify and allocate budget to the Integration Project Office • Track Budget Formulation risks/issues that are integration-related in the BF Risk document and MDM issues log. The Integration Project may be assigned ownerships of these risks/ issues when appropriate. • Manage master set of documented technical requirements • Provide input to Development and Production SLAs • Facilitate communication	• Perform risk management in the context of integration technical risks • Provide budget estimates to the Budget Formulation Project • Assume budgetary and management responsibility of software license contract after Agency Rollout • Assist in identifying Budget Formulation risks/issues in the areas that the IPO is responsible for delivering. The Integration Project may be assigned ownerships of these risks/ issues when

Project Phase	Activities	Budget Formulation Project	Integration Project/PrISMS Contractor
		between CF and BF implementation teams • Create Transition Plan	appropriate. • Manage IPO tasks • Identify, plan and manage resources for IPO tasks • Create Development and Production SLAs • Create Production OLAs • Facilitate communication between CF and BF implementation teams • Communicate Budget Formulation support responsibilities to Centers (e.g., process for maintaining user accounts)
Agency Design and Release Implementation Phases	Software Solution	• Establish the application functionality and configure the system to best meet the project's requirement • Address and eliminate system gaps through agreed-upon configuration decisions, (e.g., alternative configuration approaches, process redesigns, reengineering of business rules and processes, and/or software modifications) • Identify a testing strategy to determine how configuration validation is facilitated • Work with Core Financial (CF) Project and IFMP Competency Center (as it assumes operational responsibilities) to ensure consistency and interoperability of BF process designs with CF R/3	• Provide support to the Budget Formulation Project in the impact assessment of closing requirement gaps • Update the enterprise business architecture and application architecture with Budget Formulation updates • Assess the impact of BF technical components (e.g., desktop, network, security, etc.) on the Agency infrastructure and communicate this impact to the Agency IT community

Project Phase	Activities	Budget Formulation Project	Integration Project/PrISMS Contractor
		configuration • Work with IPO Information Delivery Strategy (IDS) team to insure consistency and interoperability between design and implementation of SAP Business Information Warehouse (BW).	
Agency Design and Release Implementation Phases	Agency Training Strategy	• Develop a training approach that focuses on process implementation inclusive of process training, data entry, data usage, error correction, and problem solving • Identify training toolset • Develop a curriculum that identifies and characterizes key employee groups and aligns business practices and policies in order to obtain full benefit from the new processes and system	• Recommend technical architecture of training tools including training environment, data refresh approach, and any component to be distributed to end user workstations • Establish and maintain training environment, including performing data refreshes between training courses.
Agency Design and Release Implementation Phases	Agency Security and Controls	• Develop security user groups and separation of duty control rules that govern user access to the integrated business functions and data • Define security profiles based on roles and responsibilities • Create and execute security test scripts for user and application level security • Collect requirements and create designs for user level security (Profiles, Roles, Authorization Objects) and application level security (e.g. restriction of Variables / InfoObjects based	• Build, unit test and maintain user level security (e.g., Profiles, Roles, and Authorization Objects) and application level security (e.g. restriction of Variables / InfoObjects based on user ID) based on requirements supplied by BF Project. • Collect requirements, design, create, test, and maintain the technical level security architecture, which includes the definition and implementation of host

Project Phase	Activities	Budget Formulation Project	Integration Project/PrISMS Contractor
		on user ID) • Create requirements for various types of system users (e.g. Developer, Power User, BW Query Developer, SEM End User, etc) • Create list of production users and role mapping for each user	security, network security, and account management procedures. • Create and maintain the Budget Formulation Project security plan (one plan, to include both application and technical level security) • Create and maintain accounts (user ids and appropriate security profiles) for the development team in each development environment • Create and maintain production user accounts through production stabilization
Agency Design and Release Implementation Phases	Environment / Infrastructure	• Provide requirements for technical infrastructure and environments needed for development and production • Provide requirements for development environments and SEM Releases needed in each environment (including Sandbox, Development, QA) • Provide requirements, as well as consult and advise on system topology • Provides consulting and advice to Integration Project in operation and maintenance of the system	• Have overall responsibility for designing, providing, building, testing, and maintaining, and supporting the technical infrastructure and environments needed for development and production (all environments specified in the BF landscape). Also collect requirements from Budget Formulation team. • Create development environments and SEM releases for each environment • Operates and maintains system during entire

Project Phase	Activities	Budget Formulation Project	Integration Project/PrISMS Contractor
			project lifecycle • Design overall technology infrastructure and topology • Create and maintain technology infrastructure deployment plans • Collect requirements, design, create, test, support, and maintain production infrastructure and topology, including servers, workstations, networks, and software that runs on these components • Create and maintains operational procedures
Agency Design and Release Implementation Phases	Technical Support	• Provide consulting and advice to the Integration Project in operation and maintenance of the system • Provide input into Technical Support procedures and Development SLA. • Provide support for Method Delivery Manager (MDM) form maintenance and customization • Supplement post-production support team during production stabilization	• Provide formal support structure (technical support procedures, help desk number, etc.) to the development team • Have overall responsibility for providing all technical support (Operating System administration, network administration, database administration and BASIS) for IFMP Data Center components to development team (local desktop and network-related components supported by Goddard local support) • Maintain and manage all development environments

Project Phase	Activities	Budget Formulation Project	Integration Project/PrISMS Contractor
			• Provide MDM administration (e.g., adding users to access database) and Lotus Notes technical support. • Provide technical troubleshooting.
Agency Design and Release Implementation Phases	**Technical Architecture**	• Develops requirements • Provide input to Integration Project on technical architecture, particularly specifics related to SEM BPS and BW. • Provide input on execution architecture requirements, such as print architecture, desktop strategy, etc. • Provide input on operations architecture components, such as systems management and monitoring, SW distribution, backup/recover, failover, disaster recovery, help desk, etc. • Identifies requirements and recommend functional 3rd party bolt-on products (e.g. BRIC/BIC). • Create standards related to Implementation-specific methodology (e.g. MDM standards) and SEM/BPS development standards. For ABAP and BW development, existing Core Financial standards will be followed.	• Responsible for assisting the Project Office in the development of technical requirements. • Responsible for designing, delivering, testing and maintaining the technical architecture • Collect requirements, design, test, and implement execution architecture components, such as print architecture, desktop strategy, etc. • Collect requirements, design, test, and implement operations architecture components, such as systems management and monitoring, SW distribution, backup/recover, failover, disaster recovery, help desk, data archiving, etc • Document and execute transport and migration processes and procedures, configuration management and version control, development environment maintenance,

Project Phase	Activities	Budget Formulation Project	Integration Project/PrISMS Contractor
			environment backup and recovery • Evaluate, select, and procure technology products (SAP and 3rd party) needed to support IPO responsibilities (e.g. systems management and monitoring, SW distribution, backup/recovery, failover, disaster recovery, help desk, data archiving, etc.) • Provide technical impact assessment of 3rd party bolt-on products • Implement architecture (including integration of 3rd party technology products and any coding needed to integrate products or create required architectural capabilities). Integration Project will also evaluate, procure, install, and maintain functional 3rd party bolt-on products. • Work with each Center (and each Center's ITPOC) to identify, implement, and test center-specific IT components needed to support BF. Determine IPO vs. Center responsibilities for meeting technical infrastructure and ongoing maintenance requirements.

Project Phase	Activities	Budget Formulation Project	Integration Project/PrISMS Contractor

Agency Design and Release Implementation Phases	**Performance Engineering**	• Provide consulting and advice on performance testing
		• Provides sizing requirements and list of transactions to be included in the performance test.
		• Set performance goals (which are negotiated and documented in the Production SLA).
		• Identify requirements for performance testing as related to BW infrastructure, which includes
		  • Use of BW Statistics Cube
		  • Use of SEM Statistics Cube
		  • Aggregates for BW reporting
		  • Aggregates for SEM application functionality
		  • Fact table partitioning
		  • Secondary Indexes
		  • InfoCube Compression
		• Tunes application code (SEM and ABAP) and BW-SEM InfoCube design to support performance problems identified
			• Define scope and approach
			• Has overall responsibility for sizing the systems, planning and conducting the performance tests, and tuning the system to achieve performance goals
			• Develop capacity plan
			• Create performance test plan
			• Establish performance test environment, including hardware, software, and performance testing and diagnostic tools
			• Execute performance test, including testing of application components, system infrastructure components, BW-SEM application, and re-test of any tuned components
			• Identify performance enhancements and tune hardware configuration, operating system components, database, network, and other infrastructure components to meet performance objectives

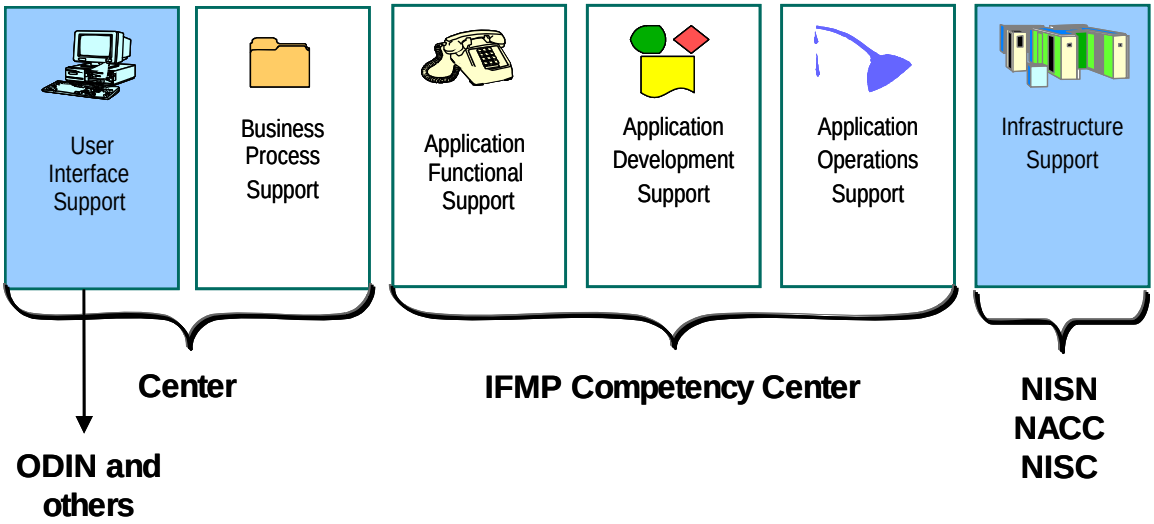
Agency Design and Release Implementation Phases	**Interfaces**	• Work with Integration Project and interfacing system owners in the design, development, and testing of interfaces with the BF system • Design/codes/unit tests BF-side	• Defines and provides interface architecture to be used for interfacing applications with the BF application. Coordinates the definition of interface

Project Phase	Activities	Budget Formulation Project	Integration Project/PrISMS Contractor
		extract/loads (it will be the responsibility of the owner of the "interfaced-to system" to design/code/test their side of the interface	requirements, the design and development of interfaces, and the testing of interfaces with the implementation contractor, interfacing system owners, and the Budget Formulation team • Has overall responsibility for requirements, designing, coding and testing of interfaces • Creates IDAs • Design/codes/unit tests interface logic • Integration (end-to-end) and performance testing of interfaces
Agency Design and Release Implementation Phases	**Conversion**	• Develop guidelines and specifications for data conversion • (BF currently only has one identified conversion - - the NASA Budgeting System [NBS]) • Defines data conversion strategy • Has overall responsibility for requirements, planning, design, coding, testing, and executing data conversion • Provide requirements for conversion tools, including specific tools needed • Design SEM conversion processes and programs • Define transition data structures	• Make data conversion tools and conversion testing environments available to the Budget Formulation Project • Work with the Budget Formulation Project to understand the volume of data to be migrated and the potential impact on scalability and performance • Provide environments needed for data conversion • Procure, install, and support data conversion tools

Project Phase	Activities	Budget Formulation Project	Integration Project/PrISMS Contractor
		• Coordinate development of extracts with legacy system owners • Code and test SEM conversion transformation and load programs • Coordinate data cleansing activities • Create detailed conversion plan and schedule • Execute mock data conversions • Execute production data conversions • Provide support during the validation of converted data, including reports from the SEM system and advice and consultation in resolving noted discrepancies	
Agency Design and Release Implementation Phases	**Application Extensions**	• Develops and maintains any required extensions to the SEM software during the implementation period • Create requirements for retractors (design and development will be the responsibility of SAP. Regression testing on the CF side will be the responsibility of the CF project). • Create requirements, design, develop, and test DataMarts (for moving data between BF and CF BW systems) • Create requirements for enhancing Core Financial R/3 to BW extractors to support BF • Support Plan vs. Actual	• The Integration Project is responsible for maintenance of software extensions and bolt-ons after Agencywide deployment • Assist in requirements, design, develop, and test of DataMarts (for moving data between BF and CF BW systems). Ensure compatibility with CF BW design. • Design, code, and test enhancements to Core Financial R/3 to BW extractors to support BF requirements • Overall responsibility for

Project Phase	Activities	Budget Formulation Project	Integration Project/PrISMS Contractor
		Reporting, including participating in design activities and providing Plan data from BF to CF.	Plan vs. Actual Reporting, including design, development, and testing of reports (Global BW Team)

The Integration Project is responsible for transition of each functional module application to operations and sustaining support during the rollout phase. The IPO provides operations and sustaining support (functional, development and operations) through the IFMP Competency Center (IFMP CC) throughout the remaining life-cycle of the module project. The IFMP CC model is depicted below.



The IFMP CC service/performance commitments for each module project are defined in a Module Project Service Level Agreement (SLA). The purpose of the SLA is to formally quantify consistent performance expectations associated with the use of the delivered modules. The SLA defines the roles and responsibilities performed by the IFMP CC, Center and Agency organizations as well as the service level commitments and associated performance standards and definitions. Currently SLAs exist for the Core Financial, Travel Management, and Resume Management modules. These SLAs are available for review at the following URL: http://unites.nasa.gov.

The total number of productive hours expended in FY-01 and FY-02 in support of the Integration Project are provided in the table below.

	FY-01 Productive	**FY-02 Productive**

	Hours	Hours
Infrastructure Support	65,159	18,251
Module Project Support	32,537	71,059
Operations & Sustaining Support	15,581	75,343

3.3.8.4 Future IFMP Projects

3.3.8.4.1 e-Payroll

e-Payroll is one of the many new e-Gov initiatives within the Federal Government. In support of this initiative and associated compliance with the President's Management Agenda (PMA), NASA will be migrating its payroll operations to a Federal service provider. NASA's payroll service delivery will be converted to the Department of Interior (DOI), one of four major service providers selected by the Office of Personnel Management (OPM) under competitive sourcing. The economies of scale, efficiencies, and technical improvements generated by this consolidation meet many of the goals established in the PMA, as well as the IFM Program.

Currently, the business case and alternative analysis for e-Payroll has not yet been finalized and approved. However, the most likely alternative that NASA will be pursuing is as follows:

- Completely shut down NASA's existing system (called NPPS) and use the DOI solution (called FPPS) for entering payroll actions and for processing payroll;
- NASA personnel would use FPPS for Human Resource (HR) transactional processing and entering SF52/ SF50 personnel actions using new automated workflow and web-based capabilities; and
- Centers would continue to use their current T&A systems (i.e., WebTADS, QuickTime, and TADS)

For more information regarding the IFMP e-Payroll project, reference the IFMP section of the UNITeS web page.

3.3.8.4.2 Integrated Asset Management, Contract Administration and Human Resources

At this time, it is envisioned that one project office at MSFC will manage the implementation of Integrated Asset Management (IAM), Contracts Administration (CA), and Human Resources (HR). Similar to Core Financial subprocesses, these modules (HR/IAM/CA) will be managed as subteams within the overall effort. It's not yet been finalized how these modules will be rolled out across the Agency; however, it's likely that various functionality will be phased in gradually, starting with IAM.

Lacking detailed planning at this time, scaling factors relative to the Core Financial effort have been produced to assist in the estimating for these modules. These scaling factors are provided in the table below.

Scaling Factors

	Scaling Factor
Integrated Asset Management	70%
Human Resources	35%
Contracts Administration	35%

During FY 2004, it is anticipated that the design phase will be conducted for IAM, and the upgrade to the Enterprise release of SAP R/3. Validation of the design with the HR and Procurement communities will also take place during FY 2004.

4. WIDE AREA NETWORK (WAN) SERVICES

The CSOC contract is a performance-based contract awarded in September 1998 by Johnson Space Center (JSC) to Lockheed Martin Space Operations Company (LMSOC). LMSOC has chosen to procure many Wide Area Network (WAN) data services from an outsourcer, Digitalnet. Digitalnet uses CSC to procure carrier services. Digitalnet provides engineering, operations support and network management. LMSOC uses Arcata to provide voice/video conferencing and fax services.

4.1 Program Management

Monthly CSOC program reviews are held with NISN to review NISN service performance and utilization, accomplishments, issues, customer satisfaction, risks, and financial/schedule data.

CSOC currently provides administrative support to the NISN project office by coordinating and distributing agendas for weekly staff meetings and by serving as the NISN configuration control board recorder.

CSOC also maintains the NISN website, nisn.nasa.gov, which is comprised of an external portion (intended for customer use), and an internal portion (intended for NISN internal use). Access to the restricted website information is controlled via user id's and passwords, which are approved by NASA and managed by the contractor.

4.1.1 Asset Management

The WAN uses MAXIMO, which is a Commercial Maintenance Management Scheduling (CMMS) tool. All government property records, purchases, logistics store information and maintenance performed are captured by site including preventive maintenance. MAXIMO interfaces with the Remedy trouble ticket database.

Property inventories are conducted annually at each major NASA facility where NISN equipment is located.

4.1.2 Customer Relationship Management

NISN uses Project Service Level Agreements (PSLAs) to document customer WAN requirements, associated service implementations, and pricing information. NISN maintains PSLA's with each NASA Center, and with Projects and Missions who require WAN services. CSOC supports the development, review, and approval of PSLAs, which are updated annually. CSOC maintains an on-line PSLA database, which contains the entire requirements baseline and changes to requirements, implementations, and pricing information. NISN also maintains the NISN Service Document (NSD), which describes NISN service offerings and policies and process for obtaining those services. NISN has contractor customer service representatives (CSRs) assigned to each NASA center, JPL, and Headquarters. These CSRs are responsible for interfacing with customers at their

respective centers regarding requirements, service requests, service implementations, service updates, user training, and reporting to customers. These individuals interface with civil servant NISN Center Representatives established at each NASA Center and for specific programs. NISN Center/Program Representatives are senior NASA personnel who are able to commit their organization in areas such as the communications networks budget, requirements for service, and policy. Specific functions of a NISN Center/Program Representatives are:

a. Gathering and verifying network requirements
b. Coordinating requirements with NISN Customer Interface Group
c. Initiating requests for studies or cost estimates to the NISN organization
d. Receiving and facilitating the distribution of NISN information
e. Participating in center/program requirements reviews
f. Interfacing with the NISN Team
g. Coordinating local installation activities in support of NISN services
h. Representing Center/Program at NISN Customer Forums
i. Facilitating validation of NISN billing information for services
j. Coordinating funding issues
k. Identifying issues and areas of concern
l. Providing contract evaluation input.

The primary and alternate NISN center and program representatives are depicted at the following web site: http://www.nisn.nasa.gov/pocs/nisn_rep.html.

NASA has established Center Customer Commitment Managers (CCCMs) to be responsible for the process that results in one or more commitments being made between the Space Communications and Data Systems (SCDS) program and a space project. These commitments define the total set of services that are to be provided by SCDS to the project. NISN supports these CCCMs and their contractors by providing expertise for NISN requirements and services. CCCM assignments within the SCDS organizational structure are found at the following web site: http://nisn.nasa.gov/pocs/nisn_rep.html.

NISN hosted one customer forum in FY01 and one in FY02. Contractor support for this forum requires coordination and contracting for hotel guest rooms and meeting space, coordination and implementation of audio/visual and communications services (phones, faxes, data, projectors, sound system); customer notification and registration; agenda development and presentations; and support to breakout meetings with customers. In FY02, NISN and CSOC also held customer site visits with each major NASA facility.

4.2 IT Security

NASA's secure voice teleconferencing system is now being procured. The switch will allow for meet- me and operator-assisted conferencing with at least two bridges, one at MSFC another at HQ, that are capable of supporting multi-level conferencing. The switch will be Government Furnished Equipment.

The NASA Security Operations Center (NSOC) is a 24 X 7 operation with a minimum of two personnel per shift. Times and shift personnel change depending on level of the network activity at that time. Senior analysts are on-call with an immediate reporting to NSOC when needed.

WAN Risk assessment plans completed to-date include NISN Support Applications Security Plan, NISN NASA Administrators ViTS Security Plan (Tandberg), Data Reduction Center (DRC) Security Plan, NISN Voice Teleconferencing Service (VoTS) Security Plan, NISN Video teleconferencing Service (ViTS) Security Plan, NISN Enterprise Network Management System (ENMS) Security Plan, NISN Routed Data Security Plan, and NISN Asynchronous Transfer Mode (ATM) Security Plan.

For IT security, personnel require a minimum Final Secret Clearance with ability to get a higher clearance probable. IT Security personnel must have a certifications in Intrusion Detection or experience equivalent. Forensic and Systems Administrators must have a certification from a credible source or equivalent training.

4.2.1 Intrusion Detection/Incident Response

Intrusion Detection sensors are located at all NASA Field Centers and HQ. Firewalls are CISCO PIX, Checkpoint on Solaris and NOKIA with Checkpoint.

4.2.2 Secure Authentication Service

NASA will purchase SMARTCards via a General Services Administration (GSA) contract. In FY2004, NASA will purchase 60,000 cards. PrISMS supports the administration, implementation, maintenance, and operation of these cards for NASA users.

4.3 Wide Area Network (WAN) Services

The mission of the NASA Integrated Services Network (NISN) is to provide cost-effective wide area network (WAN) telecommunications services for transmission of data, video and voice for all NASA Enterprises, Programs and Centers, utilizing commercial capability wherever possible. NISN provides WAN telecommunications services to every NASA center and to most NASA programs, projects, and missions. The NISN project office was formed in 1995 to consolidate the management of all of NASA's wide area networks. Prior to 1995, separate wide area networks had been established to address the unique needs of different NASA customer communities, such as the aeronautics, science, mission, and administrative/business communities. NISN was formed to reduce Agency costs and to eliminate overlap and duplication between these networks. After NISN was formed, the Space Operations Management Office (SOMO) was formed in 1996, to consolidate all of the Agency's mission and data services, including the WAN. In 2001, program management functions were transferred to NASA

Headquarters, Office of Space Flight, Space Communications and Data Systems (SCDS) organization.

The NISN Project Office includes civil servants from the MSFC Center Operations Directorate, The Office of the Chief Information Officer (CIO), and from the GSFC Management Operations Directorate, Information Services and Advanced Technology Division. MSFC CIO manages the NISN project, reporting to a Program Executive in the Space Communications Office at NASA Headquarters. The NISN project manager is located at MSFC. The deputy project manager is at GSFC. The NISN organization is comprised of the Customer Interface Group (CIG), the Business Management Group (BMG), the Network Services Group (NSG), and special staff, including the Russian project manager, the Security team, and a chief engineer. The CIG focuses primarily on NISN customers by analyzing requirements and working closely with customers to provide communications services that meet customers' requirements. The BMG is responsible for the pricing, accounting, and funding of NISN services, specifically for service rate development, performance measurement, budget planning and development, and contract management. The NSG is responsible for technology assessment and design/cost tradeoffs in order to intelligently procure network services that will best meet the needs of the Agency and individual customers. The NSG also contains the owners of the NISN Services, whose responsibilities include: improving communication between NISN and our customers and providing NISN Contractors with Corporate Memory in a Partnership Arrangement; providing customers with a Civil Service Point of Contact with Technical Insight into each NISN Service; providing the NISN Contractors with a Civil Service Advocate for coordinating with organizations outside NISN; partnering with NISN Contractors to maintain clear insight into the Architecture supporting the NISN Service and any proposed changes; advising the NISN Contractors of any potential issues and make recommendations based on their knowledge of the Service and understanding of the customer base; and functioning as the NISN Contractors advocate at NASA Configuration Control Boards.

Examples of WAN services:
Mission-critical services: voice, video, and data between NASA centers, spacecraft operations and control centers, data archive facilities, and tracking stations. Locations also include international partners, academia, other government agencies, and contractors. NISN provided communications and operational support (to include operations readiness reviews) for the following missions in FY02:

10/01 TITAN-IV/B-34
10/21 SOYUZ/ISS 3S
12/05 STS-108/ISS-12
12/07 DELTA II/TIMED
01/16 TITAN IV/B-38
02/05 PEGASUS/HESSI
02/21 ATLAS/ECHOSTAR VII
03/01 ARIANE/ENVISAT
03/01 STS-109/HSD SERVICEING

03/08 ATLAS CENTAUR/TDRS-I
03/17 ROCKOT/GRACE
04/08 STS-110/ISS
04/25 SOYUZ/ISS 42
05/04 ARIANE/SPOT 5
05/04 DELTA/AQUA
06/05 STS-111/ISS
06/15 SEALAUNCH/GALAXY IIIC
06/24 TITAN II/NOAA M
07/03 DELTA/CONTOUR
08/21 ATLAS/HOTBIRD 5
09/18 ATLAS/HISPASAT

Business-critical services: Intranet/Internet data, long distance voice, video teleconferencing, voice teleconferencing, facsimile broadcast and machines. Primarily provided at NASA field centers, but with some services to international and research partners, other government agencies, contractors, and universities.

Value-added services, such as:
Adherence to technical standards and government policies, requirements development and management, Service Level Agreement (SLA) management, Network monitoring/management/control, service delivery coordination, engineering design and specifications, analysis of alternatives, procurement, supplier interface, performance measurement, systems engineering, asset management, facilities coordination, user training, cost reporting, performance reporting, contract management, documentation, configuration management, service improvement, and new service development.

4.3.1 FTS2001 Integration

For all NASA FTS services, in addition to those services provided by FTS, the CSOC contractor provides:

a. FTS systems engineering/integration
b. Review and recommendations for design alternatives
c. Support for Service ordering
d. Service order tracking, and implementation
e. Problem reporting and resolution
f. Bill processing, review, reporting, dissemination and billing dispute management/tracking for all NASA FTS services. This function requires much interaction with NASA centers, the FTS carriers, and with GSA.
g. Supports NASA in working with GSA to develop GSA contract modifications that benefit NASA.
h. Supports any effort to transition services from one FTS carrier to another, or from the FTS2001 contract to a follow-on contract.
i. Provides information, ordering, and billing support for local services (e.g., pagers, cell phones) ordered and managed by NASA centers (vs. NISN).

NASA/NISN has chosen centralized billing for FTS2001 switched voice and video services. This allows better assessment of overall costs for these switched services. GSA receives the cost detail in flat file format from the various vendors, AT&T, MCI WorldCom & Sprint. The billing information is received up to five weeks after the data month. GSA processes the cost data into the Monthly Statement of Account (MSOA) and places this on a GSA/Monthly Online Records and Reports of Information technology Services (MORRIS) web site. This information is a summary of the costs to be billed to the agency per month. CSOC System Engineering receives this data delayed by one to two weeks.

CSOC System Engineering (S/E) also receives flat file data from the vendor. S/E merges the GSA/MSOA and vendor data using agency hierarchy codes and vendor bill payer identification as reference points. The cost data is merged using Excel spreadsheet formula. The data is separated into voice, toll free, calling cards, pagers, video and dedicated lines. This is further allocated to the NASA centers including contractor sites. The data is summarized and forwarded to a NISN authorized distribution list of personnel for each center. CSOC S/E delivers this data to MSFC and the other centers five (5) business days before the end of any month.

4.3.2 Switched Voice Services

NISN is responsible for managing long distance switched voice service (SVS) and video teleconferencing service (ViTS) transmission and switching for all NASA centers and for several contractor locations. For NASA SVS, NASA uses FTS2001/Worldcom to provide long distance service from NASA locations to domestic and international locations, toll-free inbound (800/888) services, and calling cards. For NASA ViTS, FTS2001/Worldcom provides transmission, scheduling and switching capability to conduct ViTS sessions between NASA locations and with locations not on the NASA ViTS network. These services are provisioned at NASA locations, primarily via Integrated Services Digital Network (ISDN) access trunks that are sized appropriately to accommodate traffic and to avoid unnecessary cost.

Long distance switched voice service performance should be consistent with the FTS2001 contract terms, i.e., provide users with a p.03 grade of service, meaning: the probability of a call's being blocked or delayed more than a specified interval, expressed as a decimal fraction. As an example, a p.03 grade of service means there is a 3% probability of a call being blocked.

NASA currently has approximately 10,000 calling cards issued Agency wide, distributed amongst NASA centers. NASA currently has 84 switched voice service trunks into NASA centers to accommodate center-to-center and off-center long distance dialing. These trunks are primarily provisioned via ISDN PRIs.

The call detail records for toll free, switched voice and calling cards are received, in a CD format, monthly from the vendor. The records are processed using Oracle programming to provide detailed information for each NASA center. The system is named “FTS2001 Call Detail Records” and is accessed via the web. Users request

access with local authorization provided by the site NASA NISN Center representative. The system access for personnel is updated annually per NASA security guidelines.

4.3.3 Video Services

4.3.3.1 Video Teleconferencing Services

The NASA Video Teleconferencing Service (ViTS) is a service providing interactive point-to-point and multipoint video conferencing capabilities to NASA locations, selected contractor facilities, and public video conferencing services. ViTS supports point-to-point calls ranging from 128 kilobits per second (kb/s) to 1472 kb/s and NISN video bridge assisted multipoint calls ranging from 128 kb/s to 768 kb/s. The ViTS services include provisioning and maintaining special video conferencing rooms, scheduling of videoconferences, and the transmission and distribution of the video and audio among the participating locations.

ViTS is currently based on circuit-switching technology and supports standard international teleconferencing union (ITU) H.320, H.263, G.722 and G.728 compression formats. All full service ViTS rooms also have the capability to support H.323. Currently, FTS2001 provides transmission, scheduling and bridging capability to conduct ViTS sessions between NASA locations and with locations not on the NASA ViTS network. These services are provisioned at NASA locations, primarily via integrated services digital network (ISDN) access trunks that are sized appropriately to accommodate traffic and to avoid unnecessary cost.

ViTS can be operated at a maximum of 1472 kb/s, point to point, if utilizing a Primary rate interface (PRI). ViTS can be operated at a maximum of 512 kb/s, point to point, if utilizing four basic rate interface (BRI) circuits. The on-board multipoint control unit (MCU) has the capability of connecting up to three additional 384 kb/s calls using a PRI, or three additional 128 kb/s calls using four BRI circuits. If more than four sites are required in a multipoint conference, the conference should be scheduled using the Video Conference Request System (VCRS). ViTS units also provide audio add-on capability for conferencing with voice conferencing systems.

The WAN is assessing using an Internet Protocol (IP) infrastructure to support video, audio, and graphics transmission. Collaborative tools to integrate with the ViTS rooms, as well as for use at the desktop, are also being assessed.

The WAN, via FTS2001, also provides gateway service that allows connectivity to video sites on the DISA Video Services network. The FTS2001 customer (normally the room operator/coordinator) will originate the request by scheduling the videoconference with the DISA Video Services network via the *DISA Scheduling Procedure* (available at http://www.nisn.nasa.gov/vits/index.html).

4.3.3.1.1 ViTS Service Performance Parameters

The performance parameters are:

a. As a minimum, ViTS will support up to 20 NASA community locations participating in from one to ten simultaneous and independent conferences. Service capacity is planned such that denial of service is less than 3% for any given 30-day period.
b. The time required to schedule a conference (the elapsed time between calling to establish a conference and the establishment of that conference) will be less than 15 minutes.
c. The mean time to respond to problems on an in-progress conference will be less than five minutes.
d. The mean time to restore service for an in-progress conference will be less than 15 minutes.
e. The mean time to restore service for non-conference impacting problems will be less than 48 hours.
f. Impacted conferences will be less than nine per month.
g. Conference availability will be at least 98.7% to include room systems, transport, and multipoint control system.

4.3.3.1.2 Total Video Teleconferencing Usage

In FY01, the combined number of multipoint ViTS and Portable Video Teleconferencing videoconferences was 4,835, for a total of 6,652,362 minutes. In FY02, the combined number of multipoint ViTS and Portable Video Teleconferencing videoconferences was 5,353, for a total of 7,385,385 minutes. Point-to-Point videoconferences metrics are currently not tracked. Additional ViTS documentation is available online at http://www.nisn.nasa.gov/vits/index.html

4.3.3.2 ViTS Facilities

ViTS rooms can consist of multiple cameras, an audio conferencing system, projection screens, still-frame graphics, and an integrated room control system. There are four types of ViTS rooms: Full-Service, modular, Virtual ViTS Connection (VVC) and government-furnished equipment (GFE) rooms.

All Full-Service ViTS rooms were designed, installed, and maintained by the WAN with the exception of three GFE rooms. These full-service rooms have the capability to be included in various types of video teleconference. Each full-service ViTS room is equipped with video camera, two video projection screens for main display, audio equipment, Interactive Graphics Workstation (IGW), and control panels. Some rooms also have custom features as requested by the customer. The IGW is available in point-to-point configuration only. IGW provides an interactive, high-resolution method of document sharing and file transferring. There is no local area network connection required to utilize this capability. The IGW hardware consists of: 800MHz CPU, 255MB RAM, 14Gig Hard Drive, DVD, 10MB zip drive, and 1024x768 XGA support. The IGW software consists of: Win98, Office 2000 Pro, Net Meeting 3.01, and PolySnap Graphics Utility.

The modular ViTS rooms are a self-contained systems with the capability of full-motion video, IGW, and interactive audio in both point-to-point and multipoint modes.

The VVC is a complete video and audio interface that allows any ViTS-capable room to participate in point-to-point or multipoint video teleconferences. The VVC accepts audio, full-motion video, and graphical transmitted video signals from the site's video distribution facility. It synchronizes and interfaces the signals to a NISN-owned codec located in the local gateway, then digitizes and transmits the signals via the FTS2001 network. The VVC also provides audio, full-motion, and graphical receive video signals to the sites' video distribution facility.

A GFE room is a custom room. Much like a VVC, the customer does not own a codec, but rather than accessing a codec located in their local gateway, NISN places a codec in the GFE room. The GFE custom rooms are designed by the owner to meet their own needs and specifications.

A ViTS Directory is available online at http://www.nisn.nasa.gov/vits/index.html

There are 81 switched video circuits supporting both ViTS and Portable Video Facilities. A general map of ViTS connectivity is shown below.

NISN/ViTS Topology Drawing

(Full Service & Modular Rooms)

Full Service ViTS Rooms
AMES1
CSOC (Bradford Lab)
DFRC1
GRC1
HQ1
HQ2
HQ3 (Custom)
JPL1
JSC2
KSC1
KSC7 (Custom)
LARC1
MAF1
MSFC1
MSFC2 (Custom)
MSFC5 (Custom)
MSFC6 (Custom)
MSFC7 (Custom)
MSFC8 (Custom)
MSFC9 (Custom)
SSC1
WSTF1

Modular ViTS Rooms
BHD1
FRMT1
HBRO1
GSFC3
KSC2
KSC3
KSC4
KSC5
LMCO1
MDAC1
MSFC3
MSFC4
JSC5
THKL1
VAFB1 (LBV Equipment running @ 768)

VVC ViTS Rooms
AMES2
DFRC2
GSFC2
JPL2
JSC1
JSC3
JSC4

GFE ViTS Rooms
GSFC1
HUTX1 (not our hardware)
RKDN2 (we own codec)
SSC USN1
SSC USN2
WFF1 (own codec & projectors)

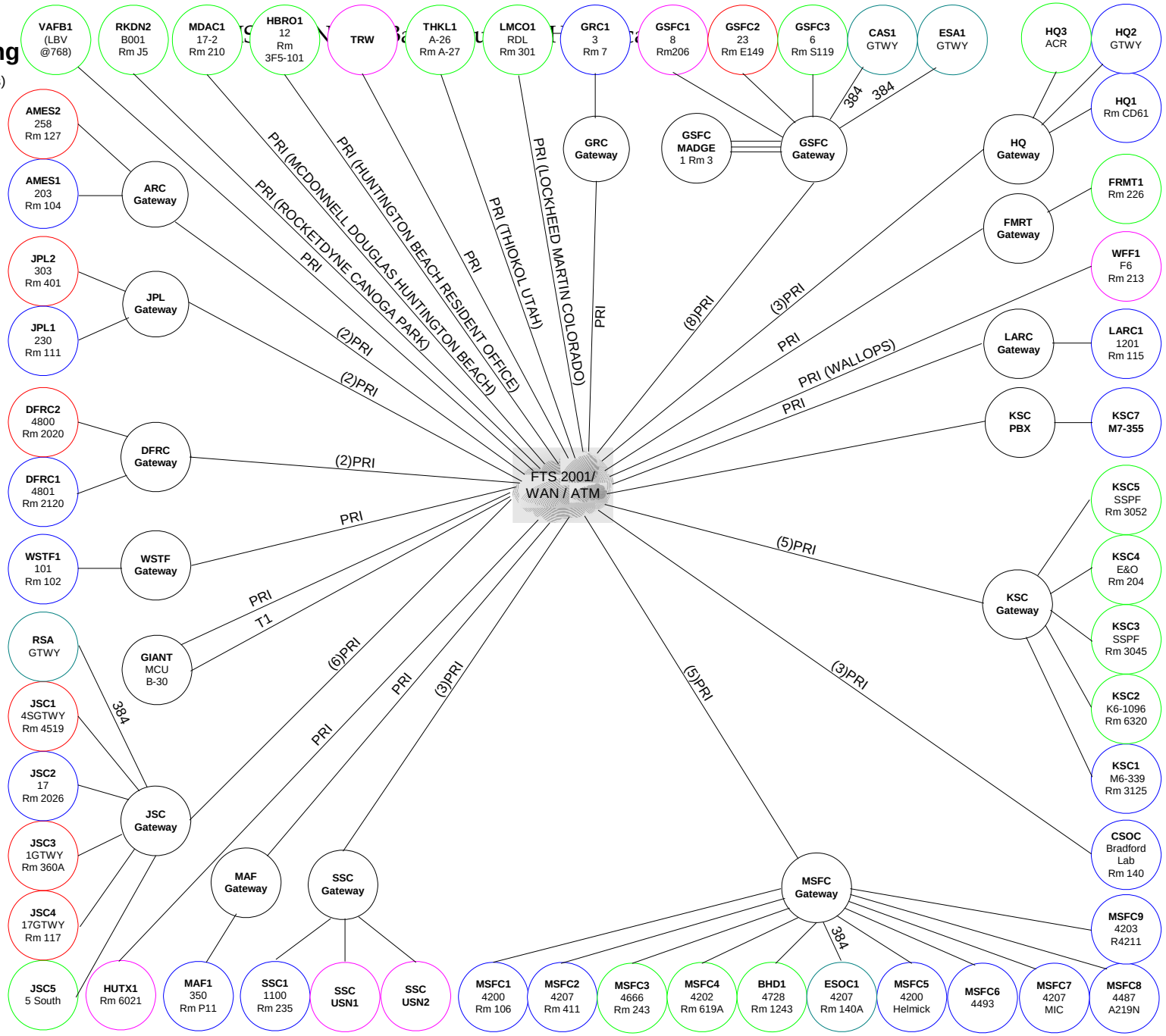
International (ICI) ViTS Rooms
CSA1
ESA1
ESOC1
RSA1

Other
Giant MCU
GSFC MADGE

Disconnected
STGT1: NSR 28652

Notes: 1/7/2003

Rev.1 6/04/01



4.3.3.3 Portable Video Teleconferencing Facilities

Portable video teleconferencing facilities are commonly known as “Low Bandwidth Units (LBV)” or the new “ViTS Roll About (VRA)” systems.

Both the LBV and VRA are systems designed for smaller conference rooms and office areas and can be relocated easily to different rooms that contain network drops. The VRA consists of a 50” plasma screen mounted on a roll-about cart. It is controlled by a user friendly, hand held remote control. Optional features include a videocassette recorder (VCR) and document camera with stand. The LBV units consists of one camera, one or two monitors, and a portable document camera to be used for graphics. LBV units are no longer being provided by the WAN.

VRA is currently based on circuit-switching technology and supports standard International Teleconferencing Union (ITU) H.323, H.320, H.263, G.722 and G.728 compression formats.

The VRA can be operated at a maximum of 1472 kb/s, point to point, if connected to a PRI. The VRA can be operated at a maximum of 512 kb/s, point to point, if connected to four BRI circuits. The on-board Multipoint Control Unit (MCU) has the capability of supporting up to three additional 384 kb/s calls using a PRI or three additional 128 kb/s calls using four BRI circuits. If more than four sites are required in a multipoint conference it should be scheduled using the video bridge. The VRA also provides audio add-on capability for conferencing with voice conferencing systems.

The WAN is responsible for the management of the room hardware and scheduling service, and obtains transmission and bridging services from FTS2001. The WAN is assessing using an Internet Protocol (IP) infrastructure to support video, audio, and graphics transmission. Collaborative tools to integrate with the VRA rooms, as well as for use at the desktop, are also being assessed.

4.3.3.3.1 VRA Service Performance Parameters

The parameters are as follows:

a. As a minimum, VRA will support up to 20 NASA community locations participating in from one to ten simultaneous and independent conferences.
b. Service capacity is planned such that denial of service is less than 3% for any given 30-day period.
c. The time required to schedule a conference (the elapsed time between calling to establish a conference and the establishment of that conference) will be less than 15 minutes.
d. The mean time to respond to problems on an in-progress conference will be less than five minutes.

e. The mean time to restore service for an in-progress conference will be less than 15 minutes.
f. The mean time to restore service for non-conference impacting problems will be less than 48 hours.
g. Impacted conferences will be less than three per month.
h. Conference availability will be at least 98.7% to include room systems, transport, and multipoint control system.

A VRA directory and additional documentation are available online at http://www.nisn.nasa.gov/vits/index.html

4.3.3.3.2 Tandberg Desktop Appliance (TDA)

The Tandberg Desktop Appliance (TDA) is an Internet Protocol (IP)-based unit capable of supporting point-to-point and multipoint video teleconferences. The TDA allows its user to easily establish point-to-point video teleconferences with a handheld remote control. The multipoint conferences are established by a new internal NASA video Bridge, or MCU, (which is different than the FTS2001 Bridge) and are set up by the NASA Video Teleconferencing Center (VTC) (currently supported by CSOC). The NASA VTC operating hours are Monday-Friday, 6 am-7 pm Central Time. The TDA system is IP based and uses the NASA Premium Routed Data Network (PIP) for connectivity. It is setup via PIP in a secure configuration, with no access to the public Internet. Access is also limited by IP address and port number. This system does have a Quick Reference Guide that provides users information on the use of the system. This guide is provided in the UNITeS library.

NISN has deployed these systems to five locations as of March 03; the NASA Administrator's office at NASA Headquarters and the Center Director's offices at ARC, JSC, KSC, and MSFC. Systems are planned to be installed at the remaining NASA center's Center Director's offices and several Associate Administrator's offices at NASA Headquarters by the end of FY03.

4.3.3.3.2.1 Tandberg Desktop Appliance (TDA) Service Performance Parameters

The parameters are as follows:

a. As a minimum, TDA will support up to 20 NASA community locations participating in from one to ten simultaneous and independent conferences.
b. Service capacity is planned such that denial of service is less than 3% for any given 30-day period.
c. The time required to schedule a conference (the elapsed time between calling to establish a conference and the establishment of that conference) will be less than 15 minutes.
d. The mean time to respond to problems on an in-progress conference will be less than five minutes.

e. The mean time to restore service for an in-progress conference will be less than 15 minutes.
f. The mean time to restore service for non-conference impacting problems will be less than 48 hours.
g. Impacted conferences will be less than three per month.
h. Conference availability will be at least 98.7% to include room systems, transport, and multipoint control system.

4.3.3.4 Video Conferencing Reservation System (VCRS)

The Video Conference Request System (VCRS) allows Video Teleconference room operators world wide to plan for room reservations. Examples of tasks that can be performed include:

a. Reserve a set of conference rooms for a scheduled conference at a particular time
b. Notify all participants of the scheduled conference
c. Determine and resolve any room schedule conflict
d. "Hold" a set of conference rooms for a particular time period before committing to a schedule
e. Provide an "alternate room" capability where, if a room is not available for a particular time, another room may serve as a scheduled entity instead

This is a web based Oracle system. Application features include:

a. VCRS Platform: runs on the agency-wide development environment (ADE) NT server with access to an ADE RISC 6000 database server.
b. VCRS Access:
   1. Through a uniform resource locator (URL) on a standard NASA web browser; either Microsoft (MS) Internet Explorer or Netscape Communicator.
   2. Through a unique userid and password to prevent unauthorized use.

Access to the VCRS system is limited to Video Teleconferencing support staff and room operators. Currently, 131 people have an account on VCRS.

A complete description document on VCRS is available online at http://www.nisn.nasa.gov/vits/index.html

4.3.3.5 Room Operations

Personnel responsible for video teleconferencing room operations are identified as the ViTS services coordinator, ViTS full-service room operator, ViTS modular room system facilitator, VVC/GFE room operator, and LBV/VRA system points of contact (POCs). Overall these personnel are referred to in this description as the ViTS Services Coordinator. These personnel are provided by center/site local support contract,

except for MSFC, which is to be provided by this contract. There are currently 57 full-service and modular ViTS Services Coordinators and their designated backups.

The ViTS services coordinator is the single local point of contact to schedule a video teleconference and to schedule any other use of the video conferencing facilities. To perform their scheduling tasks, services coordinators require specific equipment, system accounts and forms. The local NISN site representative is the contact person for the services coordinator for information and setup on the required accounts. A detailed listing of the equipment necessary can be found in the *Room Operation Overview: Scheduling, Operation, and Trouble Reporting*, available online at http://www.nisn.nasa.gov/vits/index.html

The day-today scheduling and operating responsibilities of the ViTS Services Coordinators include:

a. Using VCRS to maintain the schedule for the local NISN ViTS Room
b. Coordinating with other Services Coordinators and Facilitators to confirm the availability of other video teleconferencing rooms that are on the request.
c. Scheduling the room operator (as required) to support the operation of local room equipment during video teleconferences.
d. Providing users with instructions on how to access VCRS.
e. Providing initial user familiarization and briefings on ViTS and the local video teleconferencing facility.
f. Contacting the local site's facilities office when repairs are needed in the rooms.
g. Informing users on the maximum capacity for the ViTS room according to the fire code at the local site
h. Collecting attendance forms and users comments forms from the room operator, if required by site.
i. Keeping local site telephone directories and other ViTS user documentation available for the user.

Additional tasks can be found in the *Room Operation Overview: Scheduling, Operation, and Trouble Reporting*, available online at http://www.nisn.nasa.gov/vits/index.html

The contractor also provides a liaison to work the ViTS Services Coordinators. The liaison's tasks include, but are not limited to:

a. Developing training materials related to video teleconferencing operations
b. Maintaining the online video teleconferencing directories and operations manuals
c. Training of ViTS Services Coordinator and video room operators in video teleconferencing operations

d. Certification of video teleconferencing rooms, both NASA and non-NASA, to ensure operability with the NASA video teleconferencing systems.
e. Regular contact with ViTS Services Coordinators and video room operators to ensure that their concerns are addressed in overall operations.

4.3.3.6 Video Distribution (Mission Video)

The NISN video distribution service provides for the distribution of video signals in support of NASA programs. The particular implementation is dependent on the specific requirements of the program and may involve terrestrial or satellite transmission, with or without the utilization of digital compression and encoding techniques. Service performance metrics are negotiated on a case-by-case (service-by-service) basis.

4.3.4 Voice Services

4.3.4.1 Voice Teleconferencing Services (VoTS)

NASA VoTS provides for the audio meeting and conferencing needs of the Agency. The VoTS provides for the scheduling and setup of operator initiated or meet-me conferences. This service also includes the provisioning and maintaining of room audio conferencing systems. VoTS services are provided through a subcontract with Arcata Associates. Arcata manages the VoTS hardware, and purchases the teleconferencing scheduling, transmission, bridging, and operator service from MCI-WorldCom

VoTS is supported by an analog audio bridging service, which provides unlimited access to both domestic and international locations. Four types of teleconference service levels are offered:

a. Unattended: Participants dial into this conference using either a toll or toll free number. The Operator is available for technical assistance only and does not initiate the conference
b. Standard: Participants dial into this conference using either a toll or toll free number, or they can request that an Operator contact them. An Operator will greet and announce the participants as they join.
c. Premier: An operator calls each participant approximately 10 minutes prior to the scheduled call time.
d. Instant Meeting: Participants dial into this conference using the toll free number and personal identification number (PIN) provided by the call leader. Instant Meeting is an unattended service that does not require going through the reservation system. NASA currently has approximately 600 active Instant Meeting Accounts

Customers can schedule a VoTS conference via a toll-free telephone number or electronically via MCI-WorldCom's e-Scheduling. E-Scheduling is a management

tool that allows users to schedule, modify and cancel voice conferences via the Internet. A user account is needed to access e-Scheduling. Instructions on obtaining a user account and the use of e-Scheduling can be found on the NISN web site.

A copy of the VoTS Brochure and additional VoTS documentation is available online at http://www.NISN.NASA.gov/vots/index.html, or in the UNITeS library.

4.3.4.1.1 VoTS Service Performance Parameters

The performance parameters are:

a. As a minimum, the service will support up to 350 NASA community users participating in up to seventy (70) simultaneous and independent conferences.
b. Service capacity is planned such that Denial of Service will be less than 3% for any given thirty (30) day period.
c. The mean time to respond to problems on an in-progress conference will be less than five (5) minutes.
d. The mean time to restore service for an in-progress conference will be less than fifteen (15) minutes.
e. The mean time to restore service for non-conference impacting problems will be less than forty-eight (48) hours.
f. Impacted conferences will be less than nine (9) per month.
g. Conference availability will be at least 98.5% to include room systems, transport, and multipoint control system.

4.3.4.1.2 Total Voice Teleconferencing Usage

	FY01 Total	FY02 Total
VoTS Total Conferences	65,898	64,439
VoTS Total Minutes	23,578,591	24,731,039
Premier Conferences	3,417	1,494
Premier Minutes	2,096,890	1,063,552
Standard Conferences	36,652	28,256
Standard Minutes	12,775,097	10,238,210
Unattended Conferences	25,829	32,102
Unattended Minutes	8,706,604	10,625,459
Instant Meeting Conferences	0	2,587
Instant Meeting Minutes	0	2,803,818

Additional VoTS documentation is available online at
http://www.nisn.nasa.gov/vots/index.html

4.3.4.2 VoTS Facilities

There are currently 144 large VoTS room facilities across NASA consisting of Shure 6000 or Baker 8000 audio conferencing systems.

4.3.4.3 Dedicated (Mission) Voice Service

Dedicated Voice Service (mission voice) encompasses a wide range of services and service complexity. At its simplest, it can be a dedicated point-to-point "shout down" circuit with no signaling. However, the majority of Dedicated Voice services consist of a system of highly reliable, dedicated voice circuits working in conjunction with a switching and conferencing system to create inter-connected voice communications loops. These voice loops interconnect the different voice distribution systems that support the diverse mission control centers within the Agency. Currently the service is supported with transmission and multiplexing support from a commercial carrier.

The Voice Switching System (VSS), a 2048 port digital switch at GSFC, is also provided and supported for this service. VSS is used to conference Mission Users.

4.3.4.3.1 Dedicated (Mission) Voice Service Performance Parameters

The performance parameters are:

a. Availability will be 99.95 percent averaged end-to-end over a one year period.
b. Service Restoral will be as follows:
    1. Service will be restored in two hours or less.
    2. For critical loops, an alternate path can be statically configured within the network. Loop owners would have the option and flexibility to patch or utilize the back up path when needed.
c. Analog channels/ports within the network have the following characteristics:
    1. Voice channel frequency band pass is 300 to 3400 Hertz (Hz).
    2. No more than +/- 5-decibel (db) gain/loss end to end
    3. All analog ports within the network shall be aligned to 0 (zero) decibel milliwatts (dBm). Center conferencing systems requiring a different Test Level Point (TLP) shall be responsible to adjust levels at their Center, external to NISN.
    4. Ambient line noise shall be greater than -40 dbm (i.e. –50 dbm)

5. 24 kb/s Adaptive Differential Pulse Code Modulation (ADPCM) compression shall be utilized, unless otherwise specified in the requirement statement.
6. 6 wire ports
7. Transmit (Tx) pair into 600 ohms impedance
8. Receive (Rx) pair into 600 ohms impedance
9. E&M pair, Type I or V signaling (optional)

d. Latency measured on a round trip basis, will be 500 milliseconds (ms) or less.
e. Digital voice services are considered custom services.

There are approximately 972 mission voice circuits in the WAN. This is a variable number dependent on the current mission activity. The number may also vary due to systems that are configured by customers. The WAN does not have insight as to the individual voice assignments of these systems.

4.3.5 Data Services

4.3.5.1 Routed Data Services

In conformance with Agency direction, the Internet Protocol (IP) has been adopted as the standard for NISN's routed data services. Though NISN currently supports other legacy protocols such as DECnet, Appletalk, and IPX, it plans on phasing out its support for these as customers develop and implement their transition plans.

NISN currently supports several intra-domain routing protocols, including Static, Routing Information Protocol (RIP), Enhanced Interior Gateway Routing Protocol (EIGRP) and Open Shortest Path First (OSPF), and inter-domain routing protocols such as Border Gateway Protocol (BGP). The NISN backbone includes both commercial carrier Asynchronous Transfer Mode (ATM) circuits and Network Service Assurance Plan (NSAP)-like dedicated circuits. NISN engineers work with customers to select a protocol consistent with both the customer's requirement and the common network architecture.

The Service Demarcation Point for NISN IP Routed Data Services is the Local Area Network (LAN) interface of the WAN router. The LAN interfaces available include 10 Base T, 100 Base-TX, 100 Base FX, and Gigabit (SX, LH, ZX) Ethernet.

4.3.5.1.1 IP Routed Data - Service Performance Categories

Four service performance categories for routed data services have been defined:

a. <u>Real-time Critical</u>: This service provides a real-time critical level of data networking connectivity with emphasis on meeting real-time telemetry transport through the use of the Internet Protocol suite. Real-time Critical IP (RCIP) service is primarily differentiated from Mission Critical IP

(MCIP) service in that it is engineered with a high level of redundancy to achieve the added level of availability. This service employs the same security and connectivity features and limitations as the Mission Critical service.

b. Mission Critical: This service provides a mission critical level of data networking connectivity through the use of the Internet Protocol suite with controlled access and security measures. MCIP service is differentiated from Standard IP (SIP) service in that it is engineered as a closed system to support space flight mission critical telemetry and data flows. All systems and facilities connected to the MCIP service must meet the specified Information Technology security level. Access to and from the general Internet and other NASA IP services is extremely limited and provided on a strictly managed "by exception" basis. MCIP service is most appropriate for critical space flight mission support data and telemetry flows that require (1) an extremely high level of availability for mission success and (2) no general Internet access.

c. Premium: This service provides a premium level of data networking connectivity through the use of the Internet Protocol suite. Premium IP (PIP) service is differentiated from SIP service in that it provides a higher performance level, higher priority for problem resolution, and is not directly connected to the general Internet. PIP connectivity to the general Internet is through a controlled gateway and is implemented on an exception basis only. PIP service is most appropriate for internal Agency networking requirements where the Agency's operations should be isolated from the general Internet.

d. Standard: This service provides for basic data networking connectivity through the use of the Internet Protocol suite. SIP service is the commodity Internet service that provides the Agency’s link to the Internet in general. It provides basic universal Internet connectivity with minimal performance guarantees or restrictions on acceptable use. SIP service is open to the public to enable access to publicly available NASA information sources such as World Wide Web services.

Real-time Critical and Mission Critical data services are presently routed over FTS2000/NSAP-like dedicated circuits, while Premium and Standard data services are routed typically over shared commercial carrier Asynchronous Transfer Mode (ATM) backbone circuits. Networks comprised of different service performance categories can be installed at a customer location to provide increased reliability.

While security is inherent in the definition of Mission Critical Service, security features can also be implemented within the context of Premium Service or Standard Service. For example route and/or traffic filtering may be implemented to provide restricted access to certain sub networks as indicated by customer or IT security requirements. It is important to note that NISN views security as a responsibility that is shared with the customer. NISN and the customer work together to identify potential threats and solutions for satisfying customer needs. The Mission Critical Services

network is an isolated network, while the Premium Services and Standard Services networks have connections to all NASA centers and to the Internet.

4.3.5.1.2 Routed Data Service Performance Parameters

The performance specifications are stated from NISN-location to NISN-location, e.g., center-to-center or tail site-to-center, and these specifications apply to CONUS connections only. NISN cannot guarantee performance beyond NISN's connections to the Internet.

Service Category	Availability	Restoral Time	Coverage Period	Acceptable Packet Loss	Round Trip Time
Real-time Critical	99.98%	< 1 min[1]	24X7	0.001%	<120 ms
Mission Critical	99.95%	2 hr[2]	24X7	0.001%	<120 ms
Premium	99.50%	4 hr[2]	24X7	<1.0%	<100 ms
Standard	99.50%	<24 hr[2,3]	6 a.m. Eastern Monday to 6 p.m. Pacific, Friday	1.0%	<250 ms

Note 1: A capability for immediately switching to an alternate data path must exist.
Note 2: These restoral times represent the time to restore service to the user and assume immediate access to the user's facility to repair/replace equipment if necessary.
Note 3: The 24-hour restoral time results from the decreased priority given to standard service as compared to the other classes of service and from the fact that standard routed data service equipment is often a considerable distance from a NASA operating location.

4.3.5.1.3 IP Routed Data - Definition of Terms

Packet Loss: Packets transmitted from the source NISN/customer interface, i.e., the connection between the NISN router and the customer router, but not received at the destination NISN/customer interface. Acceptable loss is measured over any 24-hour interval.

Maximum Time to Restore Service: Restoral of Service is defined here as the act of continuing to provide a path in order to keep customer data packets flowing to their destination. Repairing circuits or equipment may in some cases take longer than the time required for service restoral. The maximum time to restore a Service is 24 hours excluding any time required to gain access to a customer's facility. A service outage is defined as loss of service due to an unscheduled activity. Most outages are caused by equipment failure or circuit outage. At some locations, fault isolation and recovery will require the participation of the customer. NISN's objective is to achieve an MTTR for service of less than four hours. (MTTR for service can be misleading: inducing several individual short duration failures improves the mean.) The time-to-restore-service is measured on a 24x7 basis for the RCIP, MCIP, and PIP routed data services. However,

measurement of the time-to-restore-service for the SIP routed data service is suspended from Friday at 6:00 p.m. Pacific through Monday at 6:00 a.m. Eastern.

Availability: Service availability is measured over the period of one year (8760 hours). A failure is defined as an event, which results in a packet loss greater than five percent at NISN's interface to the customer. Service availability excludes scheduled preventative maintenance or upgrades. NISN's approach to measuring availability includes the customer's Service Access Point (SAP) as well as the availability of the shared resources within the network, i.e., the backbone.

Round-Trip-Time: Round trip time is measured by ping or a similar utility.

4.3.5.2 Dedicated Data Services

NISN encourages that maximum use be made of Routed Data Services. These services provide the most cost effective solution for the vast majority of data applications and are particularly well suited to the bursty nature of most data flows. However, NISN recognizes that there are unique applications that may require a full-time, dedicated bandwidth between two or more discrete locations. The requirement may be driven by performance or security considerations, or to support unique data transfer protocols not otherwise supported by the network. Dedicated Data Services can be provided to meet a wide range of speed and availability specifications. Dedicated Data Services may be used in support of other NISN services, or they may constitute part of a total network solution provided by NISN to a specific customer. Dedicated Data Services may be used both for space flight mission critical applications and for general administrative support requirements possessing unique attributes.

Dedicated Data Services are currently available at rates from as low as 9.6 kb/s up to multiples of 1.5 Mb/s (2.0 Mb/s with geographic restrictions) with the most common rates being 56 kb/s and 1.5 Mb/s. Other rates require special engineering to implement. Availability and implementation intervals would be negotiated on an individual requirement basis. Dedicated data services may be provisioned across the NISN backbone network between NASA centers or to locations not on the backbone network. Currently, CSOC provides dedicated data services via its contract with Digitalnet, whose purchaser, CSC, buys the transmission from carriers.

Custom telecommunication and networking services are specifically designed and engineered to meet unique NASA programmatic requirements. Each program determines the unique attributes of the data distribution services in such terms as security, availability, redundancy, and features that provide the optimum trade-off between cost and program success.

Custom Services may be used both for spaceflight mission critical applications and for general administrative support requirements possessing unique attributes. The general availability number for all spaceflight mission critical applications is 99.95 percent, and for all administrative support the number is 99.8 percent. These parameters will apply unless otherwise specifically negotiated as part of a

service level agreement with a customer. Actual service parameters, including pricing, will be negotiated on a case-by-case basis. Implementation may require diversely routed circuitry within the backbone portion of the service and may require ordering diversely routed circuitry for any associated tail circuits.

Two examples of Custom Dedicated Data services are Pathfinder and IDEA. Pathfinder is a joint effort between NASA and the Department of Defense (DOD) in sharing transmission services. DOD has provided NASA a clear channel OC-3 between White Sands Complex (WSC) and the Johnson Space Center (JSC). Currently, this service is being used to support PIP and SIP traffic between the two locations. Testing of a replacement of the statistical mutiplexier support High Rate Data traffic for mission service is currently being conducted. If successful, then Pathfinder could also be used for mission services as well. Trouble reporting for this service is a joint effort with the NISN ENMC and DOD.

The International Space Station (ISS) Downlink Enhanced Architecture Project (IDEA) is designed to increase the ISS Return Data Rate from 50 Mbps to 150 Mbps. NISN has implemented a custom terrestrial solution to support this project due to ISS's unique requirements. NISN is procuring direct OC-3 circuits from White Sand Complex, New Mexico to Marshall Space Flight Center (MSFC), Huntsville, AL and Johnson Space Center (JSC), Houston, TX. NISN is also provisioning the routers to support the IDEA multicast requirements. This service was implemented as a custom service because of the need to coordinate closely with the IDEA Project during the development cycle. The service may be converted to a standard Mission Routed Data Service at some point in the future as a better understanding of the Operational Data Flows develops and as changes to the Mission Routed Data infrastructure permit.

4.3.5.3 High Rate Data/Video

The High Rate Data System is a one-way (simplex), multi-mode/multi-channel system designed for operation over a full C-band (36 Mhz) domestic communications satellite transponder. Specifically, it is used to provide the ground communications path between the White Sands Complex (WSC) and the user at JSC. (Additionally, a technical monitoring capability exists within the GSFC technical control facility.) This full period 24/7 service provides a medium for transport of a TDRSS user's digital baseband return link when the rates are 2 Mb/s or higher. The system has an upper limit for the user's data of 48 Mb/s. The satellite Transponder utilized for Hrds services is also configurable to provide video transmission from WSC to JSC and GSFC or from KSC to JSC, MSFC, and GSFC.

These services are currently provided by CSOC, who purchases the satellite transponders from Americom Government Services.

4.3.6 International Services

NASA's affiliation with other National Space Agencies and international contractor locations fosters cooperative efforts between NASA and the international space community. NISN's International Interagency Telecommunications (IIT) function sponsors evolutionary concepts and ideals designed to improve service and performance for the international space community as a whole, while enhancing the flexibility, reliability, and expandability of the NISN network. With the exception of services to Russia, International services are currently provided by CSOC.

International data distribution services are provided to many of NASA's International Partners and agencies through cooperative arrangements. Rather than purchase dedicated circuits for each requirement, cooperative consolidation and integration of various requirements into an economical infrastructure is used wherever feasible to provide basic connectivity supporting programmatic requirements for the transport of data, voice, facsimile, electronic mail, and video. To the greatest extent feasible and economical, these gateway and consolidated circuits are used to support all other data distribution services unless otherwise specified. NISN's service performance metric for international IP routed data services is 99.8% availability.

Additionally, CSOC facilitates payment to international vendors in support of international partners. An example is where a NASA project, Earth Science and Data Information Project (ESDIS) has an agreement with the Earth Remote Sensing Data Center (ERSDAC) Advanced Spaceborne Thermal Emission and Reflection Radiometer (ASTER) Program of Japan to share network costs between GSFC and ERSDAC ASTER Ground Data System (GDS) in Tokyo, Japan. ERSDAC procures a 1 Mbps Asynchronous Transfer Mode (ATM) service, between ERSDAC/ASTER/GDC in Tokyo and GSFC, from a Japanese common carrier, and CSOC pays ESDIS's portion of the carrier bill. Additionally, ESDIS has an agreement with NASDA, to share the cost of a service between NASDA's Earth Observation Center in Hatoyama, Saitama, Japan, and NISN's demarcation point at JPL. NASDA procures the 3 Mbps ATM service from a Japanese carrier, and CSOC pays ESDIS's portion of the carrier bill.

4.3.6.1 International Gateways

Formerly, international communication requirements were satisfied by ordering common carrier circuits for remote locations. The expense involved in provisioning these individual circuits became prohibitive, but international requirements continued to expand. To reduce costs and increase efficiency and flexibility, NISN established digital backbone satellite and terrestrial/undersea cable circuits between the International Gateways. These gateways are located at NASA Centers and at International Partner Agency (ESA, CSA, CNES, and NASDA) facilities for the transport of data, voice, facsimile, electronic mail, and video.

The East and West Coast international gateways were established at GSFC (for ESA, and CSA) and at the JPL (for NASDA and the Institute of Space and

Astronautical Sciences (ISAS)). These gateways serve as points-of-entry/exit and dissemination for all NISN services destined to and from NASA to an International Partner Agency location.

Similarly, international gateways were established at Darmstadt, Germany (European Space Operations Center (ESOC)); at ESA HQ, Paris, France; at Toulouse, France (CNES); at Noordwijk, The Netherlands (European Space Research Technology Center (ESTEC)); and at Montreal, Canada (CSA).

NISN provides services to the following international locations:

Location	**Supporting Agency/Program**
Ibaraki & Tokyo, Japan	National Space Development Agency of Japan (NASDA), Earth Remote Sensing Data Analysis Center (ERSDAC), and Institute of Space and Astronomical Science (ISAS)
Canberra, Australia	Deep Space Network (DSN)
Madrid, Spain	DSN
Montreal, Canada	Canadian Space Agency (CSA)
Svalbard, Norway	Earth Observing System (EOS)
Noordwijk, The Netherlands	European Space Research Technology Center (ESTEC)
Darmstadt, Heidelberg, and	European Space Agency (ESA), and the European Space Operations Center (ESOC)
Oberpfaffenhofen, Germany	German Space Operations Center (GSOC)
Toulouse, France	Centre National d'Etudes Spatiales (CNES) and ESA
Cordoba, Argentina	SAC-C
Dededo, Guam	TDRSS
St Georges, Bermuda	Earth Science
Kellyville, Lake Jean, Greenland	Space Sciences
London and Oxford, England	Cassini
New Delhi, India	EOS
Poker Flat & Gilmore Creek, Alaska	Ground Network (GN), EOS, and Shuttle

(Even though Alaska is a U.S. state, it is still treated as international for carrier services.)

4.3.7 Technical Services (Dedicated)

Some customers request dedicated NISN support due to the magnitude or complexity of their requirements. NISN provides dedicated personnel to these customers. PrISMS currently provides this function. In support of this effort, personnel were assigned to provide requirements management and engineering support to the Earth Sciences Mission Office (ESMO) at GSFC. Dedicated support is also provided to the Integrated Financial Management Program (IFM) at MSFC

4.3.8 Directory Services

The NASA Directory Service is based upon the international X.500 standard for the organization and presentation of a hierarchical directory service infrastructure. The NISN organization provides an infrastructure consisting of an Agency level system and centralized support of center level systems for maintaining the disbursed hardware and software systems.

The NASA Directory Service was primarily established to assist in the standardization of the various NASA electronic mail addressing and look-up. The use of the Directory Services has expanded to include Fax number, pager number, building and room, telephone number, a unique identifier, and address look-up information. In the future, the capability of using the directory service for supporting public-private key encryption systems to support privacy and authentication needs of Agency programs is envisioned along with use of the Unique Identifier supporting the NASA Integrated Financial Management Project.

4.3.9 IP Address Management

Currently PrISMS manages, assigns, and delegates the NASA IP address space and coordinates with the American Registry of Internet Numbers (ARIN) for registration of NASA's networks and IP management policies. A total of 52 ARIN requests were completed in FY02. Currently, NASA has approximately 64 Class B and 500 Class C address blocks, located within 25 Autonomous System Numbers (ASNs) in the Agency.

4.3.10 Facsimile Broadcast Service

Facsimile service provides facsimile machines, secure facsimile machines, and a broadcast facsimile capability. The service includes the centralized procurement and maintenance of facsimile machines in support of all NASA programs. Facsimile broadcast provides the capability for NASA users to send a document to multiple recipients, as established on a preset distribution list, via a single transmission.

CSOC currently provides facsimile services through a subcontracting arrangement with Arcata Associates. Arcata procures and leases fax machines from

Pitney Bowes. Arcata purchases facsimile broadcast services from Worldcom. In addition to purchasing facsimile hardware, NISN also provides a lease option. Beginning in FY04, NISN will no longer procure new facsimile machines nor provide maintenance for fax machines at NASA centers. NISN will continue to manage any leased machines until the leases expire or until the customer no longer requires the machine. MSFC fax requirements are described in Section 5.5.2. NISN will continue providing fax broadcast service.

4.3.10.1 NISN Facsimile service Performance

A Broadcast Fax Service Account will be implemented within one business day of receipt of a properly executed service request.

4.3.10.2 Broadcast Fax Usage

In FY01, NISN provided 279,372 pages of Broadcast Fax service. In FY02, NISN provided 285,353 pages.

4.4 Systems Management and Operations

Systems Management and Operations functions include network scheduling, network monitoring, network control and system management, problem management, WAN operational support, and control centers required to support WAN services.

4.4.1 Network Scheduling

Network scheduling functions are provided by CSOC and are normally eight hours a day, five days per week. Specific support includes scheduling of satellite transponders, systems and circuit releases used in the mission network. Freeze exemption requests (FERs) to grant waivers to perform network activities during mission freeze periods. In FY01, 63 FERs were processed; in FY02, 42 FERs were processed.

During mission critical periods, the contractor issues preliminary service advisories (PSAMs) and Final service advisory messages (FSAMs) to network users and common carriers alerting them that NASA is in a mission critical support period. In FY01, CSOC issued 114 PSAMs and 112 FSAMs. In F02, CSOC issued 213 PSAMs and 200 FSAMs.

NISN uses the NISN Activity and Outage Posting and Notification System (AOPNS), and email-based scheduling system to notify approved subscribers (users) of upcoming network activities that may impact their service(s). The system allows users to filter notices based on key words or phrases. This system also distributes major outage notifications when service-impacting outages occur.

As of February 2003, 348 people had subscriptions to AOPNS. In FY01, 885 activity notifications were sent out; in FY02, 1109 activity notifications were sent. In FY01, 206 outage notifications were sent; in FY02, 163 outage notifications were sent.

The mission outage notification system (MONS) consists of two web-based components. The first is a web interface that allows mission outage recipients to filter which notices they will received based on key words or phrases contained in the notification. The second component of the MONS is a simple web-based form that makes it very easy for Communications Manager personnel to personally publish the mission outage notices. This second component is used on a day-to-day basis to notify subscribers of any mission-related service outages.

As of February 2003, 55 people subscribed to the MONS system.

4.4.2 Network Monitoring

CSOC provides network monitoring and control of remote devices. A web-based tool, Netperform, captures and reports near-real-time network performance and utilization statistics. Additional software used in WAN network monitoring are shown in the chart below:

Vendor	Application
Hewlett-Packard	OpenView Network Node Manager (NNM)
Concord Communications	Network Health
	System Edge
	Trap Exploder
Micromuse	Netcool/OMNIbus
Oracle	Oracle
Netscout Systems	Traffic Director
	Webcast
Wolfram Research	Mathematica
Remedy Corporation	Remedy
Cisco	Cisco WAN Manager (CWM)
	CiscoWorks 2000
	CiscoSecure
	NetSys
Nortel/Bay Networks	Optivity
Ki Networks	Digital Node Manager
Liebert	SiteNet Manager
N.E.T.	PanaVue
SUN MicroSystems	Solaris
	Soltice Backup
RSA	SecureID
Onion Peel	Amerigo
Freeware	Cricket/RRDtool

4.4.3 Domain Name Service (DNS)

NISN registers NASA.GOV domain names and administers the NASA.GOV Internet domain naming policies, conventions, and the Domain Name Servers within NASA. Sub-domain management is conducted by the appropriate NASA centers/organizations. There was a total of 1093 Agency DNS Actions for FY02

4.4.4 Problem Management

CSOC provides problem management in support of WAN services. The Enterprise Network Management Center (ENMC) is the primary party responsible for logging, vendoring, tracking, isolating, statusing, and resolution of WAN service-affecting outages. In 2001, 3689 trouble tickets were opened, and 3690 were closed. In 2002, 3530 trouble tickets were opened, and 3576 were closed.

The NISC uses a system named Problem Management and Dispatch System (PMDS) that is Remedy based and has custom schemas, filters, active links and C-code routines for the MSFC environment. PMDS is integrated with a data warehouse that auto-fills pertinent information on the ticket about the user's building, room, assigned equipment, and maintenance responsibilities. Problems that are not resolved by a NISC analyst are dispatched to other maintenance organizations for resolution actions.

PrISMS currently is using version 5.0.1 of the Remedy Action Request System (ARS). Remedy is an application development software that permits building and customizing applications through Remedy workflow, i.e. forms, filters, active links. Remedy resides on a Oracle version 8.1.7 database platform and the server OS is Windows 2000. PrISMS Remedy applications are also available on the web via ARS Web version 5.1. The web server platform is Windows 2000 and Microsoft-IIS/5.0.

In calendar year 2002, the number of calls received was 101,338, the average queue time was 56 seconds, and the average abandoned call rate was 9.1%.

Flash Reports are provided via a web-based reporting system and are formal reports used by CSOC to notify CSOC management and Space Communications and Data Services (SCDS) management of significant incidents that represent a:

a. Safety issue, serious injury or accident involving personnel
b. Health or safety risk to a flight mission/spacecraft
c. Degraded capability of a facility or data loss that has the potential to impact the health or safety of a flight mission/spacecraft
d. Recognition by a customer or a NASA or contractor manager of a major success or accomplishment
e. Updates to pending launches supported by CSOC that occur within 48 hours of launch (date/time of launch, updated status)

Courtesy copies of Flash Reports can be provided to local customers and CSOC personnel.

4.4.5 WAN Operations Support

The WAN currently has dedicated telecommunications gateway facilities that are the interfaces for WAN services into the NASA centers. These gateways typically contain the demarcation point for carrier services, border routers, switches, video teleconferencing equipment for Virtual ViTS Connections, and various test equipment. Below is a current listing of the WAN Gateways.

AMES RESEARCH CENTER (ARC)
Building N254, Suite 201
Moffett Field, CA 94035
Current Staffing: 2
Typical Manned Operating Hours: 0730 – 1700 PST

DRYDEN FLIGHT RESEARCH CENTER (DFRC)
Building 4838, Room 205
Edwards AFB, CA 93523
Current Staffing: 1
Typical Manned Operating Hours: 0730 – 1600 PST

FAIRMONT (FRMT)
NASA IV & V Facility
100 University Drive, Room 119
Fairmont, WV 26554
Current Staffing: Unmanned site
Typical Manned Operating Hours: n/a

GLENN RESEARCH CENTER (GRC)
Building 322
21000 Brookpark Road
Cleveland, OH 44135
Current Staffing: 2
Typical Manned Operating Hours: 0800 – 1700 EST

GODDARD SPACE FLIGHT CENTER (GSFC)
Building 1 – Basement, Room 55
Goddard Space Flight Center
Greenbelt, MD 20771
Current Staffing: 3
Typical Manned Operating Hours: 0730 – 1730 EST

NASA HEADQUARTERS (HQRS)

MARSHALL SPACE FLIGHT CENTER (MSFC)
Building 4207, Room 145
Marshall Space Flight Center
Huntsville, AL 35812
Current Staffing: 4
Typical Manned Operating Hours: 0730 – 1800 CST

STENNIS SPACE CENTER (SSC)
Building 1201, Room 119
SSC, MS 39529
Current Staffing: 1
Typical Manned Operating Hours: 0800 – 1700 CST

VANDENBURG AIR FORCE BASE (VAFB)
Building 475, Room 124
Vandenburg AFB, CA 93437
Current Staffing: 1
Typical Manned Operating Hours: 0730 – 1600 PST

JET PROPULSION LABORATORY (JPL)
California Institute of Technology
Building 171, Room B3
4800 Oak Grove Drive
Pasadena, CA 91109-8099
Current Staffing: 2
Typical Manned Operating Hours: 0730 – 1600 PST

JOHNSON SPACE CENTER (JSC)
2101 NASA Road 1
Building 17, Room 117
Houston, TX 77058
Current Staffing: 5
Typical Manned Operating Hours: 0600 – 2000 CST

KENNEDY SPACE CENTER (KSC)

300 E Street SW, Room CM30
2 Independence Sq Bldg
Washington, DC 20546
Current Staffing: 1
Typical Manned Operating Hours: 0800 – 1700 EST

LANGLEY RESEARCH CENTER (LaRC)
Building 1213, Room 139
16 West Taylor Street
Hampton, VA 23681-0001
Current Staffing: 1
Typical Manned Operating Hours: 0700 – 1600 EST

Building M6-39, Room 105
KSC, FL 32899
Current Staffing: 3
Typical Manned Operating Hours: 0700 – 1700 EST

MICHOUD ASSEMBLY FACILITY (MAF)
Building 320 First Floor
13800 Old Gentilly Road
New Orleans, LA 70129
Current Staffing: 1
Typical Manned Operating Hours: 0800 – 1700 CST

4.4.6 Control Centers

The WAN currently has two main control centers: the Enterprise Network Management Center (ENMC) and the Internet Protocol Network Operations Center (IPNOC). The ENMC is located at Marshall Space Flight Center (MSFC), Building 4207/Room 101, in Huntsville, AL. Typical manned operating hours are 7x24x365. Current staffing consists of network analysts and helpdesk technicians. The IPNOC is located at Goddard Space Flight Center (GSFC), Building 14/Room S91, in Greenbelt, MD. Typical manned operating hours are 7x24x365. Current staffing consists of network operators, analysts, and minimal sustaining engineering. Other support areas at GSFC include the GSFC Voice control and GSFC Tech Control, both which have operation hours of 7x24x365. The GSFC TV support has operating hour of 8:00 am to 5:00pm EST, Monday through Friday, except during shuttle missions when their operating hours are 7x24.

4.4.7 Service Requests

CSOC maintains the NISN Service Request (NSR) system and associated forms, which are used by customers to submit service requests and is used by NISN to process and track service requests. In FY01, NISN received 1057 new NSRs. In FY02, NISN received 1038 new NSRs

4.4.8 User Training

Several of the WAN services have components that are delivered directly to the user. Examples of these include video and voice teleconferencing, calling cards, and broadcast fax services. Service operations manuals are developed and made available to customers for self-training or for one-on-one training as requested. As each new service is added, a training plan for customer should be developed if needed. Training materials are reviewed yearly to ensure current service information.

Other training materials are for the use of WAN applications that are available to the customer and to the government. Examples would be the NSRS System, AOPNS, and MONS. Training materials for these systems are made available to internal team

members and customer representatives so that training of individuals can take place as new accounts are established.

Examples of existing training materials can be found at http://www.nisn.nasa.gov under *Documentation*.

5. GOVERNMENT FURNISHED VEHICLES AND OTHER EQUIPMENT

5.1 PrISMS

Type	Qty
Chevrolet 3500	1
1989 Cushman Scooter	1
1993 Ford F-700	1
1995 Dodge Dakota	1
1996 Chevrolet S-10	1
1996 Ford E-250	1
1997 Ford Aerostar	1
1997 Ford E-150	2
1997 Ford F150	5
1997 Chevrolet Astro Van	2
1998 Chevrolet C1500	2
1999 Ford Windstar	9
1999 Chevrolet Express	3
1999 Chevrolet Astro Van	4
1999 GMC T-8500	1
2000 Ford Windstar	5
2001 Dodge B1500	4
2001 Chevrolet S10	1
2001 Chevrolet Astro Van	1

Three vehicles are being provided/leases at Michoud Assembly Facility, New Orleans, LA, for use under the current contract. These are as follows:

Type	Qty
1995 Ford Econoline	1
1997 Ford Econoline	1
2002 Chevrolet Savanah	1

This list may not be all inclusive and may change depending on the Government's assessment of need.

5.2 CSOC

Year Make Model	Site Name	City	State
2001 Dodge Caravan	Headquarters	Washington	DC
2001 Dodge Stratus	Jet Propulsion Laboratory	Pasadena	CA
2000 Dodge Stratus	Michoud Assembly Facility	New Orleans	LA
1997 Ford Aerostar XLT	Goddard Space Center	Greenbelt	MD
1997 Ford Aerostar XLT	Headquarters	Washington	DC
1997 Ford Aerostar	Ames Research Center	Moffett Field	CA
1999 Dodge Caravan	Marshall Space Flight Center	Huntsville	AL
1997 Ford Aerostar	Johnson Space Center	Houston	TX
2002 Ford Windstar	Langley Research Center	Hampton	VA
1999 Chevrolet Astro	Jet Propulsion Laboratory	Pasadena	CA
1998 Dodge Caravan SE	John Glenn Research Center	Cleveland	OH
2002 Chevrolet Venture	Vandenburg Air Force Base	Vandenburg A.F.B.	CA
2000 Dodge Caravan	Stennis Space Center	Stennis	MS
1998 Dodge Caravan	Kennedy Space Center	Kennedy Space Center	FL
2000 Chevrolet S10	Dryden Flight Research Center	Edwards A.F.B.	CA
1995 Ford F-150	Marshall CSOC Local Store	MSFC	AL
1995 Ford E-250 Cargo Van	Marshall CSOC Local Store	MSFC	AL
2000 Dodge Caravan	Kennedy Space Center	Kennedy Space Center	FL

6. CONTRACT DIRECT HOURS

6.1 PrISMS Direct Hours

The following table depicts the direct labor hours expended in FY01 and FY02 for the services provided by PrISMS. The labor hours include regular time, overtime, temporary labor, subcontract labor, and corporate interdivisional transfer labor.

UNITeS B&H	Description	FY-01			FY-02		
		Dir Hours	OT Hours	Total Hours	Dir Hours	OT Hours	Total Hours
3	PrISMS Services	1,476,717	16,138	1,492,855	1,428,674	14,753	1,443,426
3.1	Program Management	126,832	336	127,168	129,053	323	129,376
3.1.1	Project Management	49,437	47	49,484	47,775	96	47,871
3.1.2	Financial Management	25,179	274	25,453	25,646	227	25,873
3.1.3	Contract Administration	6,809	0	6,809	7,868	0	7,868
3.1.4	Procurement	20,385	0	20,385	20,829	0	20,829
3.1.5	Asset Management	15,491	15	15,506	15,459	0	15,459
3.1.6	Security	2,414	0	2,414	2,157	0	2,157
3.1.7	Disaster Preparedness	*	*	*	*	*	*
3.1.8	Safety	1,488	0	1,488	3,987	0	3,987
3.1.9	Facilities Management	5,629	0	5,629	5,333	0	5,333
3.1.10	Quality Assurance	*	*	*	*	*	*
3.1.11	Documentation	*	*	*	*	*	*
3.1.12	User Training	*	*	*	*	*	*
3.1.13	Full Cost Accounting	*	*	*	*	*	*
3.2	MSFC Information Services	789,778	12,769	802,547	678,046	12,513	690,559
3.2.1	MSFC Applications and Web Services	330,946	1,705	332,651	350,652	1,068	351,719
3.2.2, 3.2.3	Computer Systems Services, Customer Requested HW and SW Maint.	74,395	1,897	76,291	83,775	1,979	85,754
3.2.4	Telecommunication Services	137,216	3,349	140,565	112,575	5,337	117,912
3.2.5	IT Security Services	26,912	0	0	26,912	0	26,912
3.2.6	Documentation Repository Services	61,776	0	61,776	61,776	0	61,776
3.2.7	Audio Visual Information Services	126,235	5,772	132,007	11,949	4,064	16,013
3.2.8	NSSTC	11,388	0	11,388	11,388	0	11,388
3.2.9	NASA Information Support Center (NISC)	20,910	47	20,957	19,019	65	19,084
3.3	Agencywide Information Mgmt. Services	560,107	3,034	563,140	621,574	1,917	623,492
3.3.1	Agencywide Applications Projects	164,651	582	165,233	180,823	547	181,370
3.3.2	NASA Digital Television Project	4,675		4,675	4,675		4,675
3.3.3	Agencywide IT Security Services	101,644	0	101,644	97,828	0	97,828
3.3.4	Data Center Services	148,425	1,625	150,050	143,045	1,052	144,097
3.3.5	Russia IT Services	28,261	0	28,261	28,386	0	28,386
3.3.6	NISSU	0	0	0	2,438	46	2,484
3.3.7	IFMP Integration Project Office	112,450	827	113,277	164,381	272	164,653

Note: Hours associated with sections 3.1.7, 3.1.10, 3.1.11, 3.1.12, and 3.1.13 are spread across sections 3.2 and 3.3

6.2 CSOC Direct Hours

The following depicts the direct labor hours expended in FY02 for the services provided by CSOC as identified in PWS sections 3.6, 3.7, 3.8, and 3.9; these numbers do not include any labor hours expended by PrISMS in support of PWS sections 3.6, 3.7, 3.8, and 3.9.

UNITeS PWS	Description	FY-02		
		Dir Hrs	OT Hrs	Total Hrs
3.6	Wide Area Network (WAN) Services	467,500	0	467,500

7. FACILITIES

PrISMS and CSOC personnel occupy onsite space at MSFC in 12 buildings. The following is a listing by type of space.

Type of Space	Square Footage
Office Space	62,000
Technical Space	58,000
Storage	34,000
Lab	7,000
Conference Room	3,800
Miscellaneous	4,700

In support of the IFM Integration Project, MSFC leases approximately 8,000 square feet of office space at Intergraph 8 on Dunlop Drive. Contractor and civil service personnel occupy this space.

Approximately 26,000 square feet of offsite space is leased by CSOC. The leased space is located at Bradford Drive.

The following is a listing of CSOC available space at each Center, excluding MSFC.

Type of Space	Square Footage
AMES RESEARCH CENTER (ARC)	
Gateway	1,000
Gateway Office and Storage Area	300
Site Rep Office	260
DRYDEN FLIGHT RESEARCH CENTER (DFRC)	
Gateway	540
FAIRMONT - NASA IV & V Facility	
Gateway	1,040

GLENN RESEARCH CENTER (GRC)	
Gateway	1,820
Site Rep Office	85
GODDARD SPACE FLIGHT CENTER (GSFC)	
Gateway	4,228
UPS and Battery Area	240
Goddard Corporate Park Offices & Lab	1,476
NASA HEADQUARTERS (HQRS)	
Gateway (includes Site Rep office_	1,728
JET PROPULSION LABORATORY (JPL)	
Gateway	2,000
Site Rep Office	240
JOHNSON SPACE CENTER (JSC)	
Gateway	2,200
Gateway Office	408
Site Rep Office	96
KENNEDY SPACE CENTER (KSC)	
Gateway	2,778
Storage	236
Site Rep Office	236
Equipment Lab	356
CD & SC Room	389
LANGLEY RESEARCH CENTER (LaRC)	
Gateway	3,516
MICHOUD ASSEMBLY FACILITY (MAF)	
Gateway	1,500
Site Rep Office	170
STENNIS SPACE CENTER (SSC)	
Gateway	1,443
Site Rep Office	108
Remote Mini-Gateway	480
VANDENBURG AIR FORCE BASE (VAFB)	
Gateway	1,427

The MSFC Building Replacement Program has identified one building for replacement in FY05and 2 buildings for demolition in FY06. The following depicts the square footage by type that will be affected when the buildings are demolished.

Type of Space	Square Footage
Office Space	10,890
Storage	7,400
Conference Room	800
Miscellaneous	500