

**CONTRACT NAS1-19385**

**THE FOLLOWING INFORMATION IS CONSIDERED EXEMPT FROM  
DISCLOSURE AND HAS BEEN DELETED UNDER FOIA  
EXEMPTION B(4):**

- Estimated Cost, Award Fee, Fixed Fee and Level of Effort Hours, pages 1-2, and 11-15;
- From Section H, the names of key personnel, page 12; Advance Agreement on Indirect Rates, Indirect Cost Pool and Ceiling Percentage and Allocation Base, page 19.

AWARD/CONTRACT	1. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 350)	RATING	00-C9	PAGE OF PAGES	1 OF 91
	2. CONTRACT (Proc. Inst. Ident.) NO. NAS1-19385	3. EFFECTIVE DATE <b>JUN 22 1991</b>	4. REQUISITION/PURCHASE REQUEST/PROJECT NO. 1-41-3530.2301		

5. ISSUED BY National Aeronautics and Space Administration Langley Research Center Hampton, VA 23665-5225	6. ADMINISTERED BY (If other than Item 5) Delegation Being Made Via NASA Form 1430 Criticality Designator C
--	--

7. NAME AND ADDRESS OF CONTRACTOR (No., street, city, county, State and ZIP Code) <b>EXCISE</b> Calspan Corporation Service Contracts Div. 110 Mitchell Boulevard Tullahoma, TN 37388	8. DELIVERY <input type="checkbox"/> FOB ORIGIN <input checked="" type="checkbox"/> OTHER (See below)
	9. DISCOUNT FOR PROMPT PAYMENT N/A
	10. SUBMIT INVOICES (4 copies unless otherwise specified) TO THE ADDRESS SHOWN IN: See G-2.

11. SHIP TO/MARK FOR See F-4.	12. PAYMENT WILL BE MADE BY Financial Management Division, M/S 175 NASA, Langley Research Center Hampton, VA 23665-5225
----------------------------------	--

13. AUTHORITY FOR USING OTHER THAN FULL AND OPEN COMPETITION: <input type="checkbox"/> 10 U.S.C. 2304(c) <input type="checkbox"/> 41 U.S.C. 253(c)	14. ACCOUNTING AND APPROPRIATION DATA PR: 3530.2301; 505-59-85-01; R14310; \$437,000 (Partial)
---	---

15A. ITEM NO.	15B. SUPPLIES/SERVICES	15C. QUANTITY	15D. UNIT	15E. UNIT PRICE	15F. AMOUNT	
	Operation and Routine Maintenance of the Ancillary Systems of the NTF			Est. Cost	Fee	Total
						\$ 3,292,000
						\$ 1,633,000
						\$ 3,692,000
						\$ 8,617,000
						\$ 1,467,468
						\$10,084,468
<b>15G. TOTAL AMOUNT OF CONTRACT</b>						<b>\$ 10,084,468</b>

W)	SEC.	DESCRIPTION	PAGE(S)	W)	SEC.	DESCRIPTION	PAGE(S)
PART I - THE SCHEDULE				PART II - CONTRACT CLAUSES			
X	A	SOLICITATION/CONTRACT FORM	1	X	I	CONTRACT CLAUSES	20
X	B	SUPPLIES OR SERVICES AND PRICES/COSTS	2	PART III - LIST OF DOCUMENTS, EXHIBITS AND OTHER ATTACH.			
X	C	DESCRIPTION/SPECS/WORK STATEMENT	3	X	J	LIST OF ATTACHMENTS	44
X	D	PACKAGING AND MARKING	5	PART IV - REPRESENTATIONS AND INSTRUCTIONS			
X	E	INSPECTION AND ACCEPTANCE	5		K	REPRESENTATIONS, CERTIFICATIONS AND OTHER STATEMENTS OF OFFERORS	
X	F	DELIVERIES OR PERFORMANCE	6		L	INSTRS. CONDS. AND NOTICES TO OFFERORS	
X	G	CONTRACT ADMINISTRATION DATA	7		M	EVALUATION FACTORS FOR AWARD	
X	H	SPECIAL CONTRACT REQUIREMENTS	10				

**CONTRACTING OFFICER WILL COMPLETE ITEM 17 OR 18 AS APPLICABLE**

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

19A. NAME AND TITLE OF SIGNER (Type or print)	20A. NAME OF CONTRACTING OFFICER W. R. KIVETT
19B. NAME OF CONTRACTOR	20B. UNITED STATES OF AMERICA
19C. DATE SIGNED	20C. DATE SIGNED JUN 5 1991
BY _____ (Signature of person authorized to sign)	BY ORIGINAL SIGNED BY _____ (Signature of Contracting Officer)

## INDEX

SECTION B

- B-1. SCOPE OF WORK--ALTERNATE II
- B-2. LEVEL OF EFFORT
- B-3. ESTIMATED COST, AWARD FEE, AND FIXED FEE

SECTION C

- C-1. STATEMENT OF WORK - OPERATION AND ROUTINE MAINTENANCE OF THE ANCILLARY SYSTEMS OF THE NATIONAL TRANSONIC FACILITY (NTF) (LARC 52.215-90) (JUN 1988)

SECTION D

- D-1. PACKAGING AND MARKING

SECTION E

- E-1. FEDERAL ACQUISITION REGULATION/AGENCY CLAUSES

SECTION F

- F-1. FEDERAL ACQUISITION REGULATION/AGENCY CLAUSES
- F-2. PERIOD OF PERFORMANCE (NASA 18-52.212-74) (DEC 1988)
- F-3. PLACE OF PERFORMANCE--ALTERNATE I (LARC 52.212-98) (JUN 1988)
- F-4. REPORTS AND DOCUMENTATION DELIVERY (LARC 52.212-99) (JUN 1988)

SECTION G

- G-1. PAYMENTS--COST, AWARD FEE, AND FIXED FEE
- G-2. SUBMISSION OF INVOICES--ALTERNATE I (LARC 52.232-94) (NOV 1989)
- G-3. AWARD FEE EVALUATIONS (LARC 52.216-92) (JUN 1990)
- G-4. WORK ORDERS (LARC 52.212-101) (JUN 1988)
- G-5. CONTRACT CLOSEOUT (LARC 52.242-90) (JUN 1988)

SECTION H

- H-1. 52.222-42 STATEMENT OF EQUIVALENT RATES FOR FEDERAL HIRES (MAY 1989)

## INDEX

- H-2. 18-52.227-72 DESIGNATION OF NEW TECHNOLOGY REPRESENTATIVE AND PATENT REPRESENTATIVE (APR 1984) NASA/FAR SUPPLEMENT
- H-3. 18-52.232-81 CONTRACT FUNDING (MAR 1989)
- H-4. ADMINISTRATION OF CONTRACT FUNDING (LARC 52.232-100) (MAR 1989)
- H-5. 18-52.235-71 KEY PERSONNEL AND FACILITIES (MAR 1989)
- H-6. OPTIONS
- H-7. OBSERVATION OF REGULATIONS AND IDENTIFICATION OF CONTRACTOR'S EMPLOYEES (LARC 52.212-104) (JUN 1988)
- H-8. EVIDENCE OF INSURANCE (LARC 52.228-93) (MAR 1989)
- H-9. INCORPORATION OF SECTION K OF THE PROPOSAL BY REFERENCE (LARC 52.215-107) (MAR 1989)
- H-10. WAGE DETERMINATIONS AND FRINGE BENEFITS (LARC 52.237-90) (NOV 1990)
- H-11. SUBCONTRACTING PLAN (LARC 52.219-91) (JUN 1988)
- H-12. SAFETY AND HEALTH PLAN
- H-13. 18-52.204-75 SECURITY CLASSIFICATION REQUIREMENTS (SEP 1989)
- H-14. EMPLOYEE'S SECURITY CLEARANCE (LARC 52.204-90) (JUN 1988)
- H-15. AUTOMATED INFORMATION SECURITY (AIS) PROGRAM/EMPLOYEE NATIONAL AGENCY CHECK (NAC) AND USER AGREEMENT EXECUTION (LARC 52.239-90) (JAN 1991)
- H-16. LIST OF INSTALLATION-PROVIDED PROPERTY AND SERVICES
- H-17. 18-52.232-80 DATE OF INCURRENCE OF COSTS (MAR 1989)
- H-18. ADVANCE AGREEMENT ON INDIRECT RATE(S) (LARC 52.231-90) (JUN 1988)
- H-19. STATE AND LOCAL SALES TAXES - VIRGINIA (LARC 52.229-92) (MAR 1991)

SECTION I

- I-1. CLAUSES INCORPORATED BY REFERENCE (FAR 52.252-2) (JUN 1988)
- I-2. CLAUSES IN FULL TEXT

SECTION B  
SUPPLIES OR SERVICES AND PRICES/COSTS

B-1. SCOPE OF WORK--ALTERNATE II

A. The Contractor shall, except as otherwise specified herein, furnish all personnel, facilities, services, equipment, supplies, and materials necessary to provide support services for the operation and routine maintenance of the ancillary systems of the National Transonic Facility (NTF).

B. Specific detailed performance requirements within the Statement of Work will be directed by the Government in accordance with the procedures outlined in G-4., Work Orders.

B-2. LEVEL OF EFFORT

A. In performing Government assigned work orders under this contract, the Contractor is obligated to provide up to [REDACTED] direct productive labor hours as defined in paragraph C. below.

B. Government authorized work orders will be issued requiring a cumulative minimum of [REDACTED] direct productive labor hours.

C. Direct productive labor hours are defined as those hours (including overtime) expended by personnel, in the performance of the effort set forth in the Statement of Work.

Direct productive labor hours do not include: (1) leave hours for vacation, holidays, sickness, etc.; (2) hours for any administration or support personnel which the Contractor may need to perform clerical or administrative functions.

B-3. ESTIMATED COST, AWARD FEE, AND FIXED FEE

A. The estimated cost of the contract is [REDACTED] exclusive of the award fee of [REDACTED]. The total of the estimated cost and award fee is [REDACTED]. The total fixed fee [REDACTED]. A base fee shall not be paid under the contract.

B. The award fee available for each evaluation period is as follows:

<u>Period</u>	<u>Available Award Fee</u>
June 22, 1991 - December 21, 1991	
December 22, 1991 - June 21, 1992	
June 22, 1992 - December 21, 1992	
December 22, 1992 - June 21, 1993	

\*Note: A fixed fee amount will be inserted if the Government exercises the one-month options to extend the period of performance as set forth in H-6.C.

SECTION C  
DESCRIPTION/SPECIFICATIONS/WORK STATEMENT

C-1. STATEMENT OF WORK - OPERATION AND ROUTINE MAINTENANCE OF THE ANCILLARY SYSTEMS OF THE NATIONAL TRANSONIC FACILITY (NTF) (LARC 52.215-90) (JUN 1988)

1.0 Scope

The National Transonic Facility (NTF) is a continuous flow wind tunnel with a pressure range from 1 to 9 atms, a temperature range from -300 deg. F to +150 deg. F, and a Mach number range of 0.2 to 1.2. The facility is capable of operating in a cryogenic (gaseous nitrogen test medium) or in a warm (air test medium) mode. Facility design is centered around energy efficiency, high productivity, and safety. Operation of the NTF is normally on a two-shift basis. The Contractor shall furnish, at Langley Research Center, services to support the operation and routine maintenance of the NTF in accordance with LARC Standard Operating Procedures. This effort shall include: plant systems support, including operation of the liquid nitrogen and ancillary facility support systems; maintenance and calibration of oxygen monitoring equipment; supplementing and maintaining facility support software, structural analysis of test hardware, fixtures and models; maintenance of facility instrumentation systems; and records and documents management services including drafting and design. All tools, equipment, and materials will be provided by the Government except for necessary replacement parts or components. All of the tasks areas are physically located at the NTF site with the exception of the oxygen monitoring system which is not only at the NTF site but also at the adjoining 0.3m Transonic Cryogenic Tunnel site.

2.0 Task Areas

2.1 Plant Systems

2.1.1 Facility Support Systems--The Contractor shall provide daily check-out, routine maintenance and operation of the facility support systems: high pressure air, cooling water, nitrogen supply, nitrogen vent, hydraulic and lubrication systems. Maintenance functions shall be as prescribed in Government-furnished maintenance manuals. Operation functions include: checks to assure that all components in the system are functioning properly; placing all components in a state of operational readiness; and returning the system to a "down and safe" condition after completion of tunnel operation. The Contractor shall perform additional facilities support functions as required, such as: switching the test gas from nitrogen to air, purging and conditioning specific areas of the tunnel, and performing inspection and repair of tunnel components.

2.1.2 Liquid Nitrogen (LN<sub>2</sub>) Offloading and Storage--The Contractor shall provide for operation of the LN<sub>2</sub> offloading station as required to receive LN<sub>2</sub> by tank truck; operate and monitor offloading and storage equipment; and perform required safety functions. Operation shall include system start-up (cooldown) and securing. Operation of this system is independent of facility operation; however, it is related to NTF use rate of LN<sub>2</sub>.

The normal mode of operation is by pipeline but occasionally truck offloading will be required.

2.2 Oxygen Monitoring Systems--The Contractor shall maintain the oxygen monitoring equipment in the NTF, 0.3m Transonic Cryogenic Tunnel and other areas within the NTF functional/safety complex.

The Contractor shall provide corrective, daily, weekly and monthly routine maintenance of these systems, including insitu sensor calibration. The Contractor shall investigate low oxygen alarms and provide necessary corrective action.

2.3 Facility Support and Test Application Software--The Contractor shall provide support for the operation of data systems computers and the modification and origination/development of applications software as required. In the area of data processing, the Contractor shall support the operation of batch programs for data reduction, data plotting and listing, and preparation of final data packages. The Contractor shall be responsible for maintenance of both on-line and off-line data reduction and display software for the National Transonic Facility (NTF).

The Contractor shall supplement and maintain facilities applications software including standard vendor software necessary to support the applications software, as well as maintain the software library for the facility. The software must be checked, reviewed, and modified, as necessary. The Contractor shall provide software documentation. The Contractor shall provide support to upgrade the computer complex in the facility. This may include converting a designated set of the existing facility software so that it will operate on new computers.

2.4 Facility Instrumentation System--The Contractor shall implement, modify, and maintain the instrument systems required by the facility. The Contractor shall perform routine checks on the operation and accuracy of facility instrumentation and recalibrate as required.

The Contractor shall troubleshoot and replace inoperable components or perform on-site repairs minimizing downtime. The Contractor shall configure patchboards and data acquisition systems for tests and shall process and track equipment and supplies. Thorough technical documentation is required for configuration maintenance.

2.5 Structural Analysis--The Contractor shall review associated model documentation to assure compliance with Langley Handbook 1710.15, "Wind-Tunnel Model Systems Criteria," and, as needed, perform detailed analyses (loads, stress, fatigue, fracture mechanics, deformation, vibration, divergence, and thermal) of models, stings, and other model related systems entering the facility for testing. The Contractor shall identify computer codes necessary to perform the required analyses.

2.6 Maintenance of Records and Documentation--The Contractor shall maintain NTF technical records, facility baseline documentation, operating procedures, facility configuration management documents, and user files. The

user files shall include all correspondence, model and test hardware description, design, structural analyses, quality assurance plans and reports, test plans, data, test logs, and final data reports.

The Contractor shall provide drafting and design services to produce layout and detailed drawings and/or drawing changes as required.

The Contractor shall reproduce and distribute updated facility documents, and maintain facility work logs.

SECTION D  
PACKAGING AND MARKING

D-1. PACKAGING AND MARKING

All items deliverable under this contract shall be packaged/packed for mailing/shipment in such a manner as to ensure safe arrival at destination. All items deliverable under this contract shall be marked with the contract number for proper identification. Marking of reports and other documentation shall be as set forth in Exhibit A, Contract Documentation Requirements.

SECTION E  
INSPECTION AND ACCEPTANCE

E-1. FEDERAL ACQUISITION REGULATION/AGENCY CLAUSES

FEDERAL ACQUISITION REGULATION (FAR) (48 CFR CHAPTER 1) CLAUSES

52.246-5 INSPECTION OF SERVICES - COST-REIMBURSEMENT (APR 1984)

- (a) Definition. "Services," as used in this clause, includes services performed, workmanship, and material furnished or used in performing services.
- (b) The Contractor shall provide and maintain an inspection system acceptable to the Government covering the services under this contract. Complete records of all inspection work performed by the Contractor shall be maintained and made available to the Government during contract performance and for as long afterwards as the contract requires.
- (c) The Government has the right to inspect and test all services called for by the contract, to the extent practicable at all places and times during the term of the contract. The Government shall perform inspections and tests in a manner that will not unduly delay the work.
- (d) If any of the services performed do not conform with contract requirements, the Government may require the Contractor to perform the services again in conformity with contract requirements, for no additional fee. When the defects in services cannot be corrected by reperformance, the Government may (1) require the Contractor to take necessary action to ensure that future performance conforms to contract requirements and (2) reduce any fee payable under the contract to reflect the reduced value of the services performed.
- (e) If the Contractor fails to promptly perform the services again or take the action necessary to ensure future performance in conformity with contract requirements, the Government may (1) by contract or otherwise, perform the services and reduce any fee payable by an amount that is equitable under the circumstances or (2) terminate the contract for default.



SECTION F  
DELIVERIES OR PERFORMANCE

F-1. FEDERAL ACQUISITION REGULATION/AGENCY CLAUSES

FEDERAL ACQUISITION REGULATION (FAR) (48 CFR CHAPTER 1) CLAUSES

52.212-13 STOP-WORK ORDER (AUG 1989) - ALTERNATE I (APR 1984)

(a) The Contracting Officer may, at any time, by written order to the Contractor, require the Contractor to stop all, or any part, of the work called for by this contract for a period of 90 days after the order is delivered to the Contractor, and for any further period to which the parties may agree. The order shall be specifically identified as a stop-work order issued under this clause. Upon receipt of the order, the Contractor shall immediately comply with its terms and take all reasonable steps to minimize the incurrence of costs allocable to the work covered by the order during the period of work stoppage. Within a period of 90 days after a stop-work order is delivered to the Contractor, or within any extension of that period to which the parties shall have agreed, the Contracting Officer shall either -

(1) Cancel the stop-work order; or

(2) Terminate the work covered by the order as provided in the Termination clause of this contract.

(b) If a stop-work order issued under this clause is canceled or the period of the order or any extension thereof expires, the Contractor shall resume work. The Contracting Officer shall make an equitable adjustment in the delivery schedule, the estimated cost, the fee, or a combination thereof, and in any other terms of the contract that may be affected, and the contract shall be modified, in writing, accordingly, if -

(1) The stop-work order results in an increase in the time required for, or in the Contractor's cost properly allocable to, the performance of any part of this contract; and

(2) The Contractor asserts its right to the adjustment within 30 days after the end of the period of work stoppage; provided, that, if the Contracting Officer decides the facts justify the action, the Contracting Officer may receive and act upon the claim submitted at any time before final payment under this contract.

(c) If a stop-work order is not canceled and the work covered by the order is terminated for the convenience of the Government, the Contracting Officer shall allow reasonable costs resulting from the stop-work order in arriving at the termination settlement.

(d) If a stop-work order is not canceled and the work covered by the order is terminated for default, the Contracting Officer shall allow, by equitable adjustment or otherwise, reasonable costs resulting from the stop-work order.

F-2. PERIOD OF PERFORMANCE (NASA 18-52.212-74) (DEC 1988)

The period of performance of this contract shall be twenty-four (24) months from the effective date of the contract.

F-3. PLACE OF PERFORMANCE--ALTERNATE I (LARC 52.212-98) (JUN 1988)

The principal place of performance shall be at NASA, Langley Research Center, Hampton, Virginia.

F-4. REPORTS AND DOCUMENTATION DELIVERY (LARC 52.212-99) (JUN 1988)

The Contractor shall provide to the Government all reports and items of documentation as required by Section I, Contract Clauses, by work orders issued under the contract and Exhibit A, Contract Documentation Requirements.

SECTION G  
CONTRACT ADMINISTRATION DATA

G-1. PAYMENTS--COST, AWARD FEE, AND FIXED FEE

A. Payments of cost shall be made in monthly installments. Payments of award fee shall be made in response to and in the amount of the Fee Determination Official's written Notice of Award Fee as set forth in G-3. below. Payments of award fee are subject to the withholding provisions of the Section I clause entitled "Award Fee." Payments of fixed fee shall be made in monthly installments based upon percentage of completion of work as determined by the Contracting Officer and subject to the withholding provisions of the clause entitled "Fixed Fee."

B. Award Fee--Monthly provisional payments of award fee will be made in amounts not exceeding sixty percent (60%) of the monthly available award fee, i.e.: 60% of the value of the pertinent award fee period divided by the number of months therein. Subsequent to each award fee determination, per G-3., paragraph C., an adjustment will be made to pay such additional award fee as may not have been paid through monthly provisional payments or to make a downward adjustment in fee payments should the provisional payments have exceeded the determined award fee.

G-2. SUBMISSION OF INVOICES--ALTERNATE I (LARC 52.232-94) (NOV 1989)

Proper invoices, as determined under the Section I clause entitled "Prompt Payment," shall be addressed to the designated payment office shown in Block 12. on page 1 of this contract. Cost and fee invoices shall be submitted separately. Cost invoices, shall be submitted through the delegated Government Audit Agency, which shall be the designated billing office with a copy to the delegated Administrative Contracting Officer. Fee invoices shall be submitted through the NASA Contracting Officer with a copy to the delegated Audit Agency and the delegated Administrative Contracting Officer.

G-3. AWARD FEE EVALUATIONS (LARC 52.216-92) (JUN 1990)

A. The Contractor's performance hereunder shall be evaluated each period by an Evaluation Board in accordance with an established evaluation plan. A copy of this plan shall be furnished to the Contractor within forty-five (45) days of the effective date of this contract. This plan may be modified by the Government and a copy of any modification will be provided to the Contractor. The Board shall review the Contractor's performance for each period in the following areas:

Performance of Work (Technical/Management)  
Cost  
Safety 10%

B. The findings of the Board shall be reported to the Fee Determination Official (a cognizant individual at the program director level or higher of LARC management) who will determine to what extent the Contractor's performance for the preceding award fee evaluation period warrants payment of some portion of the available award fee specified in Section G. In no event will any unawarded portion of fee for any evaluation period become available for award in subsequent periods.

C. The Contractor will be notified of the Fee Determination Official's determination of award fee by the Contracting Officer in a Notice of Award Fee, and such decision shall be binding on both parties and not subject to the Section I clause entitled "Disputes - Alternate I."

D. In the event this contract is terminated prior to a regularly scheduled award fee determination, the fee to be paid to the Contractor shall be an appropriate portion of any available award fee, as may be determined by the Fee Determination Official.

E. The Contractor may submit evaluation plan recommendations pertinent to evaluation criteria, methods of measurement, definitions, ground rules, relative importance, etc., to the Contracting Officer. Such recommendations may be for the initial evaluation period or for subsequent periods. Recommendations for the initial period should be received by the Contracting Officer no later than the effective date of the contract and for subsequent periods no later than thirty (30) days prior to the beginning of the period.

G-4. WORK ORDERS (LARC 52.212-101) (JUN 1988)

A. The work to be performed within the areas outlined in Section C, Description/Specifications/Work Statement, will be more specifically directed by means of written work orders issued by the Government, containing (as applicable) the following information:

1. Date
2. Job order/work order number
3. Originator
4. Description of work, specifications and/or end item
5. Required schedule
6. Manpower estimate
- (\*) 7. Material cost estimate
- (\*) 8. Government-furnished material
- (\*) 9. Applicable special instructions

(\*) To be provided at the option of the Government.

B. Two (2) copies of each work order will be furnished to the Contractor, one (1) shall be retained by the Contractor and one (1) shall be returned to the Contracting Officer Technical Representative upon completion of the work specified therein, containing, as applicable, actual completion dates and/or delivery dates, actual man-hours expended, actual material and labor costs incurred, and any remarks which the Contractor may wish to make with respect to his performance thereunder.

C. The Contractor shall furnish a control and reporting system capable of accurately obtaining on a weekly basis actual man-hours, labor costs, and material costs associated with each LARC work order number.

D. If any work order is considered by the Contractor to be outside the scope of this contract, or if the Contractor has reason to believe that he will exceed the scope of his contractual obligation (e.g. contract level of effort, contract funding, contract estimated cost) in the performance thereof, the Contractor shall immediately notify the Contracting Officer in writing, and shall not perform any work pending resolution by the Contracting Officer.

G-5. CONTRACT CLOSEOUT (LARC 52.242-90) (JUN 1988)

A. Reassignment--After receipt, inspection, and acceptance by the Government of all required articles and/or services, and resolution of any pending issues raised during the Period of Performance, this contract will be reassigned to the NASA Langley Research Center Contracting Officer for Contract Closeout. All transactions subsequent to the physical completion of the contract should, therefore, be addressed to the said Contracting Officer at NASA Langley Research Center, Mail Stop 126, who may be reached by telephone at (804) 864-2462.

B. "Quick Closeout"--Paragraph (f) of the Allowable Cost and Payment clause of this contract addresses the "Quick Closeout Procedure" delineated by Subpart 42.7 of the Federal Acquisition Regulation (FAR). It should be understood that the said procedure applies to the settlement of indirect costs for a specific contract in advance of the determination of final indirect cost rates when the amount of unsettled indirect cost to be allocated to the contract is relatively insignificant. Therefore, the "Quick Closeout" procedure does not preclude the provisions of paragraph (d) of the Allowable Cost and Payment clause nor does it constitute a waiver of final audit of the Contractor's Completion Voucher.

C. Completion Voucher Submittal--Notwithstanding the provisions of the Allowable Cost and Payment clause, as soon as practicable after settlement of the Contractor's indirect cost rates applicable to performance of the contract, the Contractor shall submit a Completion Voucher as required by the aforesaid clause. The Completion Voucher shall be supported by a cumulative claim and reconciliation statement and executed NASA Forms 778, Contractor's Release, and 780, Contractor's Assignment of Refunds, Rebates, Credits, and Other Amounts. Unless directed otherwise by the Contracting Officer for Contract Closeout, the Contractor shall forward the said Completion Voucher directly to the cognizant Government Agency to which audit functions under the contract have been delegated.

SECTION H  
SPECIAL CONTRACT REQUIREMENTS

H-1. 52.222-42 STATEMENT OF EQUIVALENT RATES FOR FEDERAL HIRES (MAY 1989)

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

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

Employee Class	Monetary Wage
Plant Systems, Shift Leader	\$13.04
Senior Plant Systems Technician	\$12.10
Plant Systems Electrician	\$11.10
Plant Systems Technician	\$ 9.16
Software Data Systems Operator	\$ 7.81
Instrumentation Technician, Group Leader	\$11.84
Instrumentation Technician	\$ 7.81
Drafter	\$ 7.81
File Clerk	\$ 6.98

FRINGE BENEFITS

- Annual Leave - Receives 13 days paid leave for service up to 3 years; 20 days for 3 to 15 years service; and 26 days for 15 years service or over.
- Sick Leave - Receives 13 days paid leave per year.
- Holidays - Receives 10 paid holidays per year.
- Health Insurance - Government pays up to 60% of health insurance.
- Group Life Insurance - Government pays two-thirds of life insurance rate premiums.
- Retirement - The Government provides two retirement plans identified as the Civil Service Retirement System (CSRS) and the Federal Employees Retirement System (FERS). Under the CSRS the Government contributes 7% of the employees' base pay towards retirement. Under the FERS the Government contributes 7.65% of the employees' base pay (UP TO \$51,300) for FICA/Medicare benefits, 13% of the employees' base pay for the basic retirement and up to 5% of the employees' base pay for the thrift savings plan.

Part-time Federal employees receive pro rata annual leave, sick leave, holiday leave, health insurance, and group life insurance benefits based on the number of hours worked.

H-2. 18-52.227-72 DESIGNATION OF NEW TECHNOLOGY REPRESENTATIVE AND PATENT REPRESENTATIVE (APR 1984) NASA/FAR SUPPLEMENT

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

<u>Title</u>	<u>Office Code</u>	<u>Address (including zip code)</u>
New Technology Representative	200	NASA, Langley Research Center Hampton, VA 23665-5225
Patent Representative	143	NASA, Langley Research Center Hampton, VA 23665-5225

(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 18-27.375-3 of the NASA FAR Supplement.

H-3. 18-52.232-81 CONTRACT FUNDING (MAR 1989)

(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 [REDACTED] and covers the following period of performance: May 6, 1991 through August 31, 1991.

(b) An additional amount of [REDACTED] is obligated under this contract for payment of fee.

H-4. ADMINISTRATION OF CONTRACT FUNDING (LARC 52.232-100) (MAR 1989)

A. The Contractor agrees that all future incremental funding shall be accomplished by Administrative Change Modification and that the funding procedure shall in no way change the Contractor's notification obligations as set forth in the "Limitation of Funds" clause.

B. In addition to the requirements of the "Limitation of Funds," clause, the Contractor shall notify the Contracting Officer in writing if at any time the Contractor has reason to believe that the total cost to the Government, exclusive of any fee, for the complete performance of this contract will be greater or substantially less than the then total estimated cost of the contract. Such notification shall give a revised estimate of the total cost for the performance of this contract.

H-5. 18-52.235-71 KEY PERSONNEL AND FACILITIES (MAR 1989)

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

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

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

H-6. OPTIONSA. PRICED OPTIONS/EXTENDED TERM

Pursuant to the Section I clause entitled "Option to Extend the Term of the Contract (MAR 1989)," the Contractor hereby grants to the Government options to extend the term of the contract for two (2) additional periods, one for twelve (12) and one for twenty-four (24) months each. Such options are to be exercisable by issuance of a unilateral modification. Upon exercise of such option(s) by the Government, the following items will be increased by the amount specified below for each option period.

<u>Item</u>	<u>First Option Period</u>	<u>Second Option Period</u>
Period of Performance (Ref. F-2.)	12 months	24 months
Level of Effort (Ref. B-2.)	██████████ hours	██████████ hours
Estimated Cost (Ref. B-3.)	██████████	██████████
Award Fee (Ref. B-3.)	██████████	██████████

Award Fee Availability (Ref. B-3.)

June 22, 1993 -		
December 21, 1993	[REDACTED]	
December 22, 1993 -		
June 21, 1994	[REDACTED]	
June 22, 1994 -		
December 21, 1994		[REDACTED]
December 22, 1994 -		
June 21, 1995		[REDACTED]
June 22, 1995 -		
December 21, 1995		[REDACTED]
December 22, 1995 -		
June 21, 1996		[REDACTED]

B. PRICED OPTION - ADDITIONAL LEVEL OF EFFORT

1. The Contractor hereby grants to the Government options to increase the contract level of effort, by the amounts specified below for each period. The Government's options may be exercised once or multiple times in minimum increments of 1,000 hours of effort. Such options are to be exercisable by issuance of a unilateral modification. The Government shall give the Contractor thirty (30) days preliminary written notice(s) for the exercise of any increment(s) of this option. Preliminary notice shall not commit the Government to exercise the option.

Level of Effort  
(Ref. B-2.)

Initial Contract Period	[REDACTED]
First Option Period	[REDACTED] hours
Second Option Period	[REDACTED] hours

2. When any increment of the above option is exercised, the contract cost and fee set forth in B-3., Estimated Cost, Award Fee, and Fixed Fee will be increased using the appropriate rates set forth below for the period in which the option is exercised:

Rate Per Hour

	<u>Cost</u>	<u>Fee</u>
Initial Contract Period	[REDACTED]	[REDACTED]



First Option  
Period

[REDACTED]

[REDACTED]

Second Option  
Period

[REDACTED]

[REDACTED]

3. Increases in the award fee will be allocated to the applicable award fee schedule period.

C. PRICED OPTIONS FOR EXTENDED SERVICES

1. Basic Requirement

Pursuant to FAR 37.111 and to the Section I clause entitled "Option to Extend the Term of the Contract (MAR 1989)," the Contractor hereby grants to the Government Options to extend the term of the contract for six (6) additional one (1) month periods. Such options are to be exercisable by issuance of a unilateral modification prior to the expiration of the contract. Upon exercise of such option(s) by the Government, the following items will be increased by the amount specified below for each option period.

<u>Item</u>	<u>Third Option Period</u>	<u>Fourth Option Period</u>	<u>Fifth Option Period</u>	<u>Sixth Option Period</u>	<u>Seventh Option Period</u>	<u>Eighth Option Period</u>
Period of Performance (Ref. F-2.)	1 month	1 month	1 month	1 month	1 month	1 month
Level of Effort (Ref. B-2.)	[REDACTED] hours	[REDACTED] hours	[REDACTED] hours	[REDACTED] hours	[REDACTED] hours	[REDACTED] hours
Estimated Cost (Ref. B-3.)	[REDACTED]					
Fixed Fee (Ref. B-3.)	[REDACTED]					

2. Additional Level of Effort

The Contractor hereby grants to the Government options to increase the contract level of effort by 469 hours each period. The Government's options may be exercised once each month in minimum increments of 100 hours. Such options are to be exercisable by issuance of a unilateral modification. When any increment is exercised, the contract cost and fixed fee set forth in B-3., Estimated Cost, Award Fee, and Fixed Fee will be increased using the appropriate rates set forth below for the period in which the option is exercised:

	<u>Rate Per Hour</u>	
	<u>Cost</u>	<u>Fee</u>
Third Option Period	[REDACTED]	[REDACTED]

Fourth Option  
Period

[REDACTED]

[REDACTED]

Fifth Option  
Period

[REDACTED]

[REDACTED]

Sixth Option  
Period

[REDACTED]

[REDACTED]

Seventh Option  
Period

[REDACTED]

[REDACTED]

Eighth Option  
Period

[REDACTED]

[REDACTED]

H-7. OBSERVATION OF REGULATIONS AND IDENTIFICATION OF CONTRACTOR'S EMPLOYEES  
(LARC 52.212-104) (JUN 1988)

A. Observation of Regulations--In performance of that part of the contract work which may be performed at Langley Research Center or other Government installation, the Contractor shall require its employees to observe the rules and regulations as prescribed by the authorities at Langley Research Center or other installation.

B. Identification Badges--At all times while on LARC property, the Contractor shall require its employees, subcontractors and agents to wear badges which will be issued by the NASA Contract Badge and Pass Office, located in Building No. 1228. Badges shall be issued only between the hours of 6:30 a.m. and 4:30 p.m., Monday through Friday. Contractors will be held accountable for these badges, and may be required to validate outstanding badges on an annual basis with the NASA LARC Security Office. Immediately after employee termination or contract completion, badges shall be returned to the NASA Contract Badge and Pass Office.

H-8. EVIDENCE OF INSURANCE (LARC 52.228-93) (MAR 1989)

The Contractor shall submit evidence of the insurance coverage, required by the NASA Clause 18-52.228-75 in Section I entitled "Minimum Insurance Coverage" (i.e., a Certificate of Insurance or other confirmation), to the Contracting Officer prior to performing under this contract. In the event the Government exercises its options to extend the term of the contract, the Contractor shall also present such evidence to the Contracting Officer prior to commencement of performance under the extension.

H-9. INCORPORATION OF SECTION K OF THE PROPOSAL BY REFERENCE (LARC 52.215-107)  
(MAR 1989)

Pursuant to FAR 15.406-1(b), the completed Section K of the proposal dated January 23, 1991 is hereby incorporated herein by reference.

H-10. WAGE DETERMINATIONS AND FRINGE BENEFITS (LARC 52.237-90) (NOV 1990)

The Register of Wage Determinations and Fringe Benefits, Number 78-1030, Exhibit C, dated August 2, 1990 lists the wage rate and fringe benefits for designated labor classifications which shall be the minimum paid under this contract. See Exhibit C for a copy of this wage determination. This determination constitutes the "attachment" as referred to in paragraph (a), Compensation, of the Section I clause entitled "Service Contract Act of 1965."

H-11. SUBCONTRACTING PLAN (LARC 52.219-91) (JUN 1988)

The approved Contractor plan for subcontracting with small business and small disadvantaged business concerns is attached hereto as Exhibit F and is hereby made a part of this contract.

H-12. SAFETY AND HEALTH PLAN

The approved Contractor Safety and Health Plan is attached hereto as Exhibit E and is hereby made a part of this contract.

H-13. 18-52.204-75 SECURITY CLASSIFICATION REQUIREMENTS (SEP 1989)

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

H-14. EMPLOYEE'S SECURITY CLEARANCE (LARC 52.204-90) (JUN 1988)

By virtue of their particular work assignment, certain Contractor employees may be required to have a security clearance granted in accordance with DOD 5220.22M, the Department of Defense Industrial Security Manual for Safeguarding Classified Information (ISM). CONFIDENTIAL security clearances shall be issued by the Contractor's Security Officer. SECRET or higher clearances shall be issued by the Department of Defense (DOD). Within ten (10) working days after an employee is identified by the Government and/or the Contractor as requiring a SECRET or higher clearance, the Contractor shall submit to the Contracting Officer evidence of the submittal of a request for clearance to DOD for such employee. If the clearance for an employee has not been issued by DOD within 120 calendar days of the submittal of the request for clearance to DOD, the Contractor may be required to remove such employee from the contract.

H-15. AUTOMATED INFORMATION SECURITY (AIS) PROGRAM/EMPLOYEE NATIONAL AGENCY CHECK (NAC) AND USER AGREEMENT EXECUTION (LARC 52.239-90) (JAN 1991)

A. Work to be performed under this contract requires access to ADP equipment and processing areas. Therefore, the Contractor shall comply with the requirements of NASA's Automated Information Security Program. This program is separate and distinct from security programs for safeguarding classified information. Prior to performing any work in restricted-access computer rooms

or accessing NASA ADPE (either remotely or on-site at LARC), all Contractor employees must have a favorable NAC completed. The Contractor shall submit a properly executed Standard Form 85, Questionnaire for Non-Sensitive Positions, to the LARC Security Officer, Mail Stop 182, for each Contractor employee who will work in restricted access computer rooms and/or access NASA ADPE. In addition, each such employee is required to be fingerprinted at the LARC Badge and Pass Office, Building 1228, or by any authorized agency or department utilizing Fingerprint Card FD-258. Approximately 75 days are required to complete the NAC after receipt of the Standard Form 85 and FD-258. The NAC is not required if an employee has a Secret or higher clearance. When it is necessary for an employee to perform any work in restricted access computer rooms prior to completion of the NAC, the employee may be escorted while at the site by an individual who has a favorable NAC or a higher level of investigation favorably adjudicated, or a Secret or higher clearance, or as otherwise approved by the Security Officer. Employees may access NASA ADP equipment prior to completion of the NAC only as approved by the LARC Security Officer on a case-by-case basis.

B. The Contractor shall insure that all Contractor personnel execute a user agreement, Form No. ACD N-865, Responsibilities of Users of the NASA/LARC Central Scientific Computer Complex, prior to having access to NASA ADP resources. Unauthorized access to and/or use of LARC computing systems is a violation of law and punishable under the provisions of 18 USC 1029, 18 USC 1030, and other applicable statutes. For compliance with Center Computer security policy, the Contractor shall promptly notify the Contracting Officer's Technical Representative (COTR) when an authorized user employee no longer requires computer access.

#### H-16. LIST OF INSTALLATION-PROVIDED PROPERTY AND SERVICES

In accordance with the Installation Provided Government Property clause of this contract, the Contractor is authorized use of the types of property and services listed below, to the extent they are available, while on-site at the NASA installation.

(a) Office space, work area space, and utilities. The Contractor shall use Government telephones for official purposes only.

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

(c) Forklift, personal computers, terminals, work stations, cad system, plotter, printers, microfiche copier/reader.

(1) The Government retains accountability for this property under the Installation-Provided Government Property clause, regardless of its authorized location.

(2) If the Contractor acquires property as a direct cost under this contract, this property also shall become accountable to the Government upon its entry into the NASA Equipment Management System (NEMS) in accordance with the property-reporting requirements of this contract.

(3) The Contractor shall not bring on-site 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.

- (d) Supplies from stores stock.
- (e) Publications and blank forms stocked by the installation.
- (f) Safety and fire protection for Contractor personnel and facilities.
- (g) Medical treatment of a first-aid nature for Contractor personnel injuries or illnesses sustained during on-site duty.
- (h) Audiograms for Contractor employees permanently assigned to a high-noise area.
- (i) Cafeteria privileges for Contractor employees during normal operating hours.
- (j) Building maintenance for facilities occupied by Contractor personnel.
- (k) 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.
- (l) The responsibilities of the Contractor as contemplated by paragraph (a) of the Installation-Provided Government Property clause are defined in the following property management directives and installation supplements to these Directives:
  - (1) NHB 4200.1, NASA Equipment Management Manual.
  - (2) NHB 4200.2, NASA Equipment Management System (NEMS) User's Guide for Property Custodians.
  - (3) NHB 4300.1, NASA Personal Property Disposal Manual.
  - (4) NHB 4100.1, NASA Materials Inventory Management Manual.
- (m) On-Center mail delivery.
- (n) Langley Activities Association sponsored events.

H-17. 18-52.232-80 DATE OF INCURRENCE OF COSTS (MAR 1989)

The Contractor shall be entitled to reimbursement for costs incurred on or after May 6, 1991 in an amount not to exceed \$128,000 that, if incurred after this contract had been entered into, would have been reimbursable under this contract.

H-18. ADVANCE AGREEMENT ON INDIRECT RATE(S) (LARC 52.231-90)  
(JUN 1988)

Notwithstanding the provisions of the Section I clause entitled "Allowable Cost and Payment," the Contractor will be reimbursed at the indirect

ceiling rates specified below or the actual rates, whichever are less, for each of the Contractor's fiscal years applicable to this contract. The Contractor's fiscal year is January 1 through December 31. Any costs that are not reimbursed due to the ceilings shall be deemed unallowable costs. These unallowable costs shall not be recovered under this or any other Government contract.

<u>Indirect Cost Pool</u>	<u>Ceiling Percentage</u>	<u>Allocation Base</u>
G&A		

The above rate ceilings are predicated upon the bases listed above and the accounting practices and accounting system as set forth in the Disclosure Statements dated April 29, 1991, and submitted to DCMAO Atlanta on May 16, 1991. If the Contractor changes its accounting practices or accounting system in any way, the Contractor will immediately notify the Government. Within thirty (30) days of such change the Contractor shall present to the Contracting Officer information that demonstrates that the change will not impact the allowable cost computed using the above rates or shall submit a proposal for adjustment of the ceilings so that the total costs allowable will not exceed the total costs that would have been allowable had the Contractor not changed its accounting practices or accounting system. In the event that the parties cannot agree on new ceilings using the Contractor's new accounting practices or system and the Contractor does not agree to return to the previous accounting practices and system, the Contracting Officer may equitably adjust the ceilings.

H-19. STATE AND LOCAL SALES TAXES - VIRGINIA (LARC 52.229-92) (MAR 1991)

To perform this contract, the Contractor must be knowledgeable of relevant state and local taxes when making purchases of tangible personal property. The Contractor shall refrain from paying nonapplicable taxes or taxes where an exemption exists, but shall pay applicable taxes that are reimbursable pursuant to FAR 31.205-41, Taxes. Even though title to property purchased under this contract may pass to the Government and the price is reimbursable under contract cost principles, such transactions do not in themselves provide tax immunity to the Contractor. Therefore, within 30 days after the effective date of this contract, the Contractor shall request from the Virginia State Tax Commission a ruling on any tax exemptions that may be applicable to purchases made under this contract. The Contractor shall provide all facts relevant to the situation and shall pursue an interpretation of the law that is most favorable to both the Contractor and the Government.

SECTION I  
CONTRACT CLAUSES

I-1. CLAUSES INCORPORATED BY REFERENCE (FAR 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.

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

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

<u>Clause Number</u>	<u>Title and Date</u>
52.202-1	Definitions (APR 1984)
52.203-1	Officials Not to Benefit (APR 1984)
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 1985)
52.203-7	Anti-Kickback Procedures (OCT 1988)
52.203-10	Price or Fee Adjustment for Illegal or Improper Activity (SEP 1990)
52.204-2	Security Requirements (APR 1984)
52.209-6	Protecting the Government's Interest when Subcontracting with Contractors Debarred, Suspended, or Proposed for Debarment (MAY 1989)
52.210-5	New Material (APR 1984)
52.212-8	Defense Priority and Allocation Requirements (MAY 1986)
52.215-1	Examination of Records by Comptroller General (APR 1984)
52.215-2	Audit - Negotiation (DEC 1989)
52.215-22	Price Reduction for Defective Cost or Pricing Data (JAN 1991)
52.215-24	Subcontractor Cost or Pricing Data (APR 1985)
52.215-27	Termination of Defined Benefit Pension Plans (SEP 1989)
52.215-31	Waiver of Facilities Capital Cost of Money (SEP 1987)
52.215-33	Order of Precedence (JAN 1986)
52.216-7	Allowable Cost and Payment (APR 1984)
52.216-8	Fixed Fee (APR 1984)
52.219-8	Utilization of Small Business Concerns and Small Disadvantaged Business Concerns (FEB 1990)
52.219-9	Small Business and Small Disadvantaged Business Subcontracting Plan (JAN 1991)
52.219-13	Utilization of Women-Owned Small Businesses (AUG 1986)
52.219-16	Liquidated Damages - Small Business Subcontracting Plan (AUG 1989)
52.220-3	Utilization of Labor Surplus Area Concerns (APR 1984)
52.220-4	Labor Surplus Area Subcontracting Program (APR 1984)
52.222-1	Notice to the Government of Labor Disputes (APR 1984)
52.222-3	Convict Labor (APR 1984)

52.222-26 Equal Opportunity (APR 1984)  
 52.222-28 Equal Opportunity Preaward Clearance of Subcontracts (APR 1984)  
 52.222-35 Affirmative Action for Special Disabled and Vietnam Era  
 Veterans (APR 1984)  
 52.222-36 Affirmative Action for Handicapped Workers (APR 1984)  
 52.222-37 Employment Reports on Special Disabled Veterans and Veterans of  
 the Vietnam Era (JAN 1988)  
 52.223-2 Clean Air and Water (APR 1984)  
 52.225-3 Buy American Act - Supplies (JAN 1989)  
 52.225-13 Restrictions on Contracting with Sanctioned Persons (MAY 1989)  
 52.227-1 Authorization and Consent (APR 1984)  
 52.227-2 Notice and Assistance Regarding Patent and Copyright Infringe-  
 ment (APR 1984)  
 52.227-3 Patent Indemnity (APR 1984)  
 52.227-14 Rights in Data - General (JUN 1987)--as modified by  
 NASA FAR Supplement 18-52.227-14  
 52.228-7 Insurance - Liability to Third Persons (APR 1984)  
 52.230-3 Cost Accounting Standards (SEP 1987)  
 52.230-4 Administration of Cost Accounting Standards (SEP 1987)  
 52.232-9 Limitation on Withholding of Payments (APR 1984)  
 52.232-17 Interest (JAN 1991)  
 52.232-22 Limitation of Funds (APR 1984)--as modified by NASA FAR  
 Supplement 18-32.705-2  
 52.232-23 Assignment of Claims (JAN 1986)  
 52.232-28 Electronic Funds Transfer Payment Methods (APR 1989)--as  
 modified by NASA FAR Supplement 18-32.908  
 52.233-1 Disputes (APR 1984) - Alternate I (APR 1984)  
 52.233-3 Protest After Award (AUG 1989) - Alternate I (JUN 1985)  
 52.237-2 Protection of Government Buildings, Equipment and Vegetation  
 (APR 1984)  
 52.237-3 Continuity of Services (JAN 1991)  
 52.242-1 Notice of Intent to Disallow Costs (APR 1984)  
 52.243-2 Changes - Cost-Reimbursement (AUG 1987) - Alternate II  
 (APR 1984)  
 52.244-2 Subcontracts (Cost-Reimbursement and Letter Contracts)  
 (JUL 1985) - Alternate I (APR 1985)  
 52.244-5 Competition in Subcontracting (APR 1984)  
 52.245-5 Government Property (Cost-Reimbursement, Time-and-Material, or  
 Labor-Hour Contracts) (JAN 1986)  
 52.246-25 Limitation of Liability - Services (APR 1984)  
 52.248-1 Value Engineering (MAR 1989)  
 52.249-6 Termination (Cost-Reimbursement) (MAY 1986)  
 52.249-14 Excusable Delays (APR 1984)

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

<u>Clause Number</u>	<u>Title and Date</u>
18-52.204-70	Report on NASA Subcontracts (DEC 1988)
18-52.204-71	NASA Contractor Financial Management Reporting (DEC 1988)
18-52.216-76	Award Fee (DEC 1988)



18-52.219-74 Use of Rural Area Small Businesses (SEP 1990)  
 18-52.223-70 Safety and Health (DEC 1988)  
 18-52.227-70 New Technology (APR 1988)  
 18-52.237-70 Emergency Evacuation Procedures (DEC 1988)  
 18-52.242-72 Observance of Legal Holidays (SEP 1989) - Alternate I  
 (SEP 1989)  
 18-52.245-70 Acquisition of Centrally Reportable Equipment (MAR 1989)  
 18-52.245-71 Installation-Provided Government Property (MAR 1989)  
 18-52.252-70 Compliance with NASA FAR Supplement (MAR 1989)

I-2. CLAUSES IN FULL TEXT

The following list of clauses are attached hereto in full text:

52.203-9 Requirement for Certificate of Procurement Integrity -  
 Modification (NOV 1990)  
 52.203-12 Limitation on Payments to Influence Certain Federal  
 Transactions (JAN 1990)  
 52.215-26 Integrity of Unit Prices (APR 1987)  
 52.217-9 Option to Extend the Term of the Contract (MAR 1989)  
 52.222-2 Payment for Overtime Premiums (JUL 1990)  
 52.222-4 Contract Work Hours and Safety Standards Act - Overtime Compen-  
 sation (MAR 1986)  
 52.222-41 Service Contract Act of 1965, as Amended (MAY 1989)  
 52.223-6 Drug-Free Workplace (JUL 1990)  
 52.232-25 Prompt Payment (APR 1989)  
 52.252-6 Authorized Deviations in Clauses (APR 1984)  
 18-52.209-71 Limitation of Future Contracting (DEC 1988)  
 18-52.228-75 Minimum Insurance Coverage (OCT 1988)

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

52.203-9 REQUIREMENT FOR CERTIFICATE OF PROCUREMENT INTEGRITY  
 MODIFICATION (NOV 1990)

- (a) Definitions. The definitions set forth in FAR 3.104-4 are hereby incorporated in this clause.  
 (b) The Contractor agrees that it will execute the certification set forth in paragraph (c) of this clause when requested by the contracting officer in connection with the execution of any modification of this contract.  
 (c) Certification. As required in paragraph (b) of this clause, the officer or employee responsible for the modification proposal shall execute the following certification:

CERTIFICATE OF PROCUREMENT INTEGRITY--MODIFICATION (NOV 1990)

(1) I, \_\_\_\_\_,  
 [Name of certifier]

am the officer or employee responsible for the preparation of this modification proposal and hereby certify that, to the best of my knowledge and belief, with the exception of any information described in this certification, I have no

information concerning a violation or possible violation of subsections 27(a), (b), (d), or (f) of the Office of Federal Procurement Policy Act, as amended\* (41 U.S.C. 423), (hereinafter referred to as "the Act"), as implemented in the FAR, occurring during the conduct of this procurement

(contract and modification number).

(2) As required by subsection 27(e)(1)(B) of the Act, I further certify that, to the best of my knowledge and belief, each officer, employee, agent, representative, and consultant of \_\_\_\_\_

[Name of Offeror]

who has participated personally and substantially in the preparation or submission of this proposal has certified that he or she is familiar with, and will comply with, the requirements of subsection 27(a) of the Act, as implemented in the FAR, and will report immediately to me any information concerning a violation or possible violation of subsections 27(a), (b), (d), or (f) of the Act, as implemented in the FAR, pertaining to this procurement.

(3) Violations or possible violations: (Continue on plain bond paper if necessary and label Certificate of Procurement Integrity--Modification (Continuation Sheet), ENTER NONE IF NONE EXIST) \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
[Signature of the officer or employee responsible for the modification proposal and date]

\_\_\_\_\_  
[Typed name of the officer or employee responsible for the modification proposal]

\*Subsections 27(a), (b), and (d) are effective on December 1, 1990.  
Subsection 27(f) is effective on June 1, 1991.

THIS CERTIFICATION CONCERNS A MATTER WITHIN THE JURISDICTION OF AN AGENCY OF THE UNITED STATES AND THE MAKING OF A FALSE, FICTITIOUS, OR FRAUDULENT CERTIFICATION MAY RENDER THE MAKER SUBJECT TO PROSECUTION UNDER TITLE 18, UNITED STATES CODE, SECTION 1001.

(End of certification)

(d) In making the certification in paragraph (2) of the certificate, the officer or employee of the competing Contractor responsible for the offer or bid, may rely upon a one-time certification from each individual required to submit a certification to the competing contractor, supplemented by periodic training. These certifications shall be obtained at the earliest possible date after an individual required to certify begins employment or association with

the contractor. If a contractor decides to rely on a certification executed prior to suspension of Section 27 (i.e., prior to December 1, 1989), the contractor shall ensure that an individual who has so certified is notified that Section 27 has been reinstated. These certifications shall be maintained by the Contractor for a period of 6 years from the date a certifying employee's employment with the company ends or, for an agency, representative, or consultant, 6 years from the date such individual ceases to act on behalf of the Contractor.

(e) The certification required by paragraph (c) of this clause is a material representation of fact upon which reliance will be placed in executing this modification.

52.203-12      LIMITATION ON PAYMENTS TO INFLUENCE CERTAIN FEDERAL  
TRANSACTIONS (JAN 1990)

(a) Definitions.

"Agency," as used in this clause, means executive agency as defined in 2.101.

"Covered Federal action," as used in this clause, means any of the following Federal actions:

- (1) The awarding of any Federal contract.
- (2) The making of any Federal grant.
- (3) The making of any Federal loan.
- (4) The entering into of any cooperative agreement.
- (5) The extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

"Indian tribe" and "tribal organization," as used in this clause, have the meaning provided in section 4 of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 450B) and include Alaskan Natives.

"Influencing or attempting to influence," as used in this clause, means making, with the intent to influence, any communication to or appearance before an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with any covered Federal action.

"Local government," as used in this clause, means a unit of government in a State and, if chartered, established, or otherwise recognized by a State for the performance of a governmental duty, including a local public authority, a special district, an intrastate district, a council of governments, a sponsor group representative organization, and any other instrumentality of a local government.

"Officer or employee of an agency," as used in this clause, includes the following individuals who are employed by an agency:

- (1) An individual who is appointed to a position in the Government under title 5, United States Code, including a position under a temporary appointment.
- (2) A member of the uniformed services, as defined in subsection 101(3), title 37, United States Code.
- (3) A special Government employee, as defined in section 202, title 18, United States Code.
- (4) An individual who is a member of a Federal advisory committee, as defined by the Federal Advisory Committee Act, title 5, United States Code appendix 2.

"Person," as used in this clause, means an individual, corporation, company, association, authority, firm, partnership, society, State, and local government, regardless of whether such entity is operated for profit, or not for profit. This term excludes an Indian tribe, tribal organization, or any other Indian organization with respect to expenditures specifically permitted by other Federal law.

"Reasonable compensation," as used in this clause, means, with respect to a regularly employed officer or employee of any person, compensation that is consistent with the normal compensation for such officer or employee for work that is not furnished to, not funded by, or not furnished in cooperation with the Federal Government.

"Reasonable payment," as used in this clause, means, with respect to professional and other technical services, a payment in an amount that is consistent with the amount normally paid for such services in the private sector.

"Recipient," as used in this clause, includes the Contractor and all subcontractors. This term excludes an Indian tribe, tribal organization, or any other Indian organization with respect to expenditures specifically permitted by other Federal law.

"Regularly employed," as used in this clause, means, with respect to an officer or employee of a person requesting or receiving a Federal contract, an officer or employee who is employed by such person for at least 130 working days within one year immediately preceding the date of the submission that initiates agency consideration of such person for receipt of such contract. An officer or employee who is employed by such person for less than 130 working days within one year immediately preceding the date of the submission that initiates agency consideration of such person shall be considered to be regularly employed as soon as he or she is employed by such person for 130 working days.

"State," as used in this clause, means a State of the United States, the District of Columbia, the Commonwealth of Puerto Rico, a territory or possession of the United States, an agency or instrumentality of a State, and multi-State, regional, or interstate entity having governmental duties and powers.

(b) Prohibitions.

(1) Section 1352 of title 31, United States Code, among other things, prohibits a recipient of a Federal contract, grant, loan, or cooperative agreement from using appropriated funds to pay any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with any of the following covered Federal actions: the awarding of any Federal contract; the making of any Federal grant; the making of any Federal loan; the entering into of any cooperative agreement; or the modification of any Federal contract, grant, loan, or cooperative agreement.

(2) The Act also requires Contractors to furnish a disclosure if any funds other than Federal appropriated funds (including profit or fee received under a covered Federal transaction) have been paid, or will be paid, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with a Federal contract, grant, loan, or cooperative agreement.

(3) The prohibitions of the Act do not apply under the following conditions:

(i) Agency and legislative liaison by own employees.

(A) The prohibition on the use of appropriated funds, in subparagraph (b)(1) of this clause, does not apply in the case of a payment of reasonable compensation made to an officer or employee of a person requesting or receiving a covered Federal action if the payment is for agency and legislative liaison activities not directly related to a covered Federal action.

(B) For purposes of subdivision (b)(3)(i)(A) of this clause, providing any information specifically requested by an agency or Congress is permitted at any time.

(C) The following agency and legislative liaison activities are permitted at any time where they are not related to a specific solicitation for any covered Federal action:

(1) Discussing with an agency the qualities and characteristics (including individual demonstrations) of the person's products or services, conditions or terms of sale, and service capabilities.

(2) Technical discussions and other activities regarding the application or adaptation of the person's products or services for an agency's use.

(D) The following agency and legislative liaison activities are permitted where they are prior to formal solicitation of any covered Federal action -

(1) Providing any information not specifically requested but necessary for an agency to make an informed decision about initiation of a covered Federal action;

(2) Technical discussions regarding the preparation of an unsolicited proposal prior to its official submission; and

(3) Capability presentations by persons seeking awards from an agency pursuant to the provisions of the Small Business Act, as amended by Pub. L. 95-507, and subsequent amendments.

(E) Only those services expressly authorized by subdivision (b)(3)(i)(A) of this clause are permitted under this clause.

(ii) Professional and technical services.

(A) The prohibition on the use of appropriated funds, in subparagraph (b)(1) of this clause, does not apply in the case of -

(1) A payment of reasonable compensation made to an officer or employee of a person requesting or receiving a covered Federal action or an extension, continuation, renewal, amendment, or modification of a covered Federal action, if payment is for professional or technical services rendered directly in the preparation, submission, or negotiation of any bid, proposal, or application for that Federal action or for meeting requirements imposed by or pursuant to law as a condition for receiving that Federal action.

(2) Any reasonable payment to a person, other than an officer or employee of a person requesting or receiving a covered Federal action or an extension, continuation, renewal, amendment, or modification of a covered Federal action if the payment is for professional or technical services rendered directly in the preparation, submission, or negotiation of any bid, proposal, or application for that Federal action or for meeting requirements imposed by or pursuant to law as a condition for receiving that Federal action. Persons other than officers or employees of a person requesting or receiving a covered Federal action include consultants and trade associations.

(B) For purposes of subdivision (b)(3)(ii)(A) of this clause, "professional and technical services" shall be limited to advice and analysis directly applying any professional or technical discipline. For example, drafting of a legal document accompanying a bid or proposal by a lawyer is allowable. Similarly, technical advice provided by an engineer on the performance or operational capability of a piece of equipment rendered directly in the negotiation of a contract is allowable. However, communications with the intent to influence made by a professional (such as a licensed lawyer) or a technical person (such as a licensed accountant) are not allowable under this section unless they provide advice and analysis directly applying their professional or technical expertise and unless the advice or analysis is rendered directly and solely in the preparation, submission or negotiation of a covered Federal action. Thus, for example, communications with the intent to influence made by a lawyer that do not provide legal advice or analysis directly and solely related to the legal aspects of his or her client's proposal, but generally advocate one proposal over another are not allowable under this section because the lawyer is not providing professional legal services. Similarly, communications with the intent to influence made by an engineer providing an engineering analysis prior to the preparation or submission of a bid or proposal are not allowable under this section since the engineer is providing technical services but not directly in the preparation, submission or negotiation of a covered Federal action.

(C) Requirements imposed by or pursuant to law as a condition for receiving a covered Federal award include those required by law or regulation and any other requirements in the actual award documents.

(D) Only those services expressly authorized by subdivisions (b)(3)(ii)(A)(1) and (2) of this clause are permitted under this clause.

(E) The reporting requirements of FAR 3.803(a) shall not apply with respect to payments of reasonable compensation made to regularly employed officers or employees of a person.

(iii) Disclosure.

(A) The Contractor who requests or receives from an agency a Federal contract shall file with that agency a disclosure form, OMB standard form LLL, Disclosure of Lobbying Activities, if such person has made or has agreed to make any payment using nonappropriated funds (to include profits from any covered Federal action), which would be prohibited under subparagraph (b)(1) of this clause, if paid for with appropriated funds.

(B) The Contractor shall file a disclosure form at the end of each calendar quarter in which there occurs any event that materially affects the accuracy of the information contained in any disclosure form previously filed by such person under subparagraph (c)(1) of this clause. An event that materially affects the accuracy of the information reported includes -

(1) A cumulative increase of \$25,000 or more in the amount paid or expected to be paid for influencing or attempting to influence a covered Federal action; or

(2) A change in the person(s) or individual(s) influencing or attempting to influence a covered Federal action; or

(3) A change in the officer(s), employee(s), or Member(s) contacted to influence or attempt to influence a covered Federal action.

(C) The Contractor shall require the submittal of a certification, and if required, a disclosure form by any person who requests or receives any subcontract exceeding \$100,000 under the Federal contract.

(D) All subcontractor disclosure forms (but not certifications) shall be forwarded from tier to tier until received by the prime Contractor. The prime Contractor shall submit all disclosures to the Contracting Officer at the end of the calendar quarter in which the disclosure form is submitted by the subcontractor. Each subcontractor certification shall be retained in the subcontract file of the awarding Contractor.

(iv) Agreement. The Contractor agrees not to make any payment prohibited by this clause.

(v) Penalties.

(A) Any person who makes an expenditure prohibited under paragraph (a) of this clause or who fails to file or amend the disclosure form to be filed or amended by paragraph (b) of this clause shall be subject to civil penalties as provided for by 31 U.S.C. 1352. An imposition of a civil penalty does not prevent the Government from seeking any other remedy that may be applicable.

(B) Contractors may rely without liability on the representation made by their subcontractors in the certification and disclosure form.

(vi) Cost allowability. Nothing in this clause makes allowable or reasonable any costs which would otherwise be unallowable or unreasonable. Conversely, costs made specifically unallowable by the requirements in this clause will not be made allowable under any of the provisions.

52.215-26

INTEGRITY OF UNIT PRICES (APR 1987)

(a) Any proposal submitted for the negotiation of prices for items of supplies shall distribute costs within contracts on a basis that ensures that unit prices are in proportion to the items' base cost (e.g., manufacturing or acquisition costs). Any method of distributing costs to line items that distorts unit prices shall not be used. For example, distributing costs equally among line items is not acceptable except when there is little or no variation in base cost. Nothing in this paragraph requires submission of cost or pricing data not otherwise required by law or regulation.

(b) The requirement in paragraph (a) of this clause does not apply to any Department of Defense (DOD) or National Aeronautics and Space Administration (NASA) contract or subcontract item of supply for which the unit price is, or is based on, an established catalog or market price for a commercial item sold in substantial quantities to the general public. A price is based on a catalog or market price only if the item being purchased is sufficiently similar to the catalog or market price commercial item to ensure that any difference in price can be identified and justified without resort to cost analysis.

(c) The Offeror/Contractor shall also identify those supplies which it will not manufacture or to which it will not contribute significant value when requested by the Contracting Officer. However, for DOD and NASA contracts, the information shall not be required for commercial items sold in substantial quantities to the general public when the price is, or is based on, established catalog or market prices.

(d) The Contractor shall insert the substance of this clause, less paragraph (c), in all subcontracts.

## 52.217-9 OPTION TO EXTEND THE TERM OF THE CONTRACT (MAR 1989)

- (a) The Government may extend the term of this contract by written notice to the Contractor within the time frame specified in the schedule; provided, that the Government shall give the Contractor a preliminary written notice of its intent to extend at least 60 days\* before the contract expires. The preliminary notice does not commit the Government to an extension.
- (b) If the Government exercises this option, the extended contract shall be considered to include this option provision.
- (c) The total duration of this contract, including the exercise of any options under this clause, shall not exceed 5 1/2 years.

\*Note: Not applicable to the six (6) one-month options (third through eighth option periods) set forth in H-6.C.

## 52.222-2 PAYMENT FOR OVERTIME PREMIUMS (JUL 1990)

- (a) The use of overtime is authorized under this contract if the overtime premium cost does not exceed zero (0) or the overtime premium is paid for work -
- (1) Necessary to cope with emergencies such as those resulting from accidents, natural disasters, breakdowns of production equipment, or occasional production bottlenecks of a sporadic nature;
  - (2) By indirect-labor employees such as those performing duties in connection with administration, protection, transportation, maintenance, standby plant protection, operation of utilities, or accounting;
  - (3) To perform tests, industrial processes, laboratory procedures, loading or unloading of transportation conveyances, and operations in flight or afloat that are continuous in nature and cannot reasonably be interrupted or completed otherwise; or
  - (4) That will result in lower overall costs to the Government.
- (b) Any request for estimated overtime premiums that exceeds the amount specified above shall include all estimated overtime for contract completion and shall -
- (1) Identify the work unit; e.g., department or section in which the requested overtime will be used, together with present workload, staffing, and other data of the affected unit sufficient to permit the Contracting Officer to evaluate the necessity for the overtime;
  - (2) Demonstrate the effect that denial of the request will have on the contract delivery or performance schedule;
  - (3) Identify the extent to which approval of overtime would affect the performance or payments in connection with other Government contracts, together with identification of each affected contract; and
  - (4) Provide reasons why the required work cannot be performed by using multishift operations or by employing additional personnel.

52.222-4 CONTRACT WORK HOURS AND SAFETY STANDARDS ACT - OVERTIME  
COMPENSATION (MAR 1986)

- (a) Overtime requirements. No Contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics (see Federal Acquisition Regulation (FAR) 22.300) shall



require or permit any such laborers or mechanics in any workweek in which the individual is employed on such work to work in excess of 40 hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than 1 1/2 times the basic rate of pay for all hours worked in excess of 40 hours in such workweek.

(b) Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the provisions set forth in paragraph (a) of this clause, the Contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such Contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic employed in violation of the provisions set forth in paragraph (a) of this clause in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of 40 hours without payment of the overtime wages required by provisions set forth in paragraph (a) of this clause.

(c) Withholding for unpaid wages and liquidated damages. The Contracting Officer shall upon his or her own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the Contractor or subcontractor under any such contract or any other Federal contract with the same Prime Contractor, or any other Federally-assisted contract subject to the Contract Work Hours and Safety Standards Act which is held by the same Prime Contractor, such sums as may be determined to be necessary to satisfy any liabilities of such Contractor or subcontractor for unpaid wages and liquidated damages as provided in the provisions set forth in paragraph (b) of this clause.

(d) Payrolls and basic records. (1) The Contractor or subcontractor shall maintain payrolls and basic payroll records during the course of contract work and shall preserve them for a period of 3 years from the completion of the contract for all laborers and mechanics working on the contract. Such records shall contain the name and address of each such employee, social security number, correct classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid. Nothing in this paragraph shall require the duplication of records required to be maintained for construction work by Department of Labor regulations at 29 CFR 5.5(a)(3) implementing the Davis-Bacon Act.

(2) The records to be maintained under paragraph (d)(1) of this clause shall be made available by the Contractor or subcontractor for inspection, copying, or transcription by authorized representatives of the Contracting Officer or the Department of Labor. The Contractor or subcontractor shall permit such representatives to interview employees during working hours on the job.

(e) Subcontracts. The Contractor or subcontractor shall insert in any subcontracts the provisions set forth in paragraphs (a) through (e) of this clause and also a clause requiring the subcontractors to include these provisions in any lower tier subcontracts. The Prime Contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the provisions set forth in paragraphs (a) through (e) of this clause.

52.222-41

## SERVICE CONTRACT ACT OF 1965, AS AMENDED (MAY 1989)

(a) **Definitions.** "Act," as used in this clause, means the Service Contract Act of 1965, as amended (41 U.S.C. 351, et seq.).

"Contractor," as used in this clause or in any subcontract, shall be deemed to refer to the subcontractor, except in the term "Government Prime Contractor."

"Service employee," as used in this clause, means any person engaged in the performance of this contract other than any person employed in a bona fide executive, administrative, or professional capacity, as these terms are defined in Part 541 of Title 29, Code of Federal Regulations, as revised. It includes all such persons regardless of any contractual relationship that may be alleged to exist between a Contractor or subcontractor and such persons.

(b) **Applicability.** This contract is subject to the following provisions and to all other applicable provisions of the Act and regulations of the Secretary of Labor (29 CFR Part 4). This clause does not apply to contracts or subcontracts administratively exempted by the Secretary of Labor or exempted by 41 U.S.C. 356, as interpreted in Subpart C of 29 CFR Part 4.

(c) **Compensation.**

(1) Each service employee employed in the performance of this contract by the Contractor or any subcontractor shall be paid not less than the minimum monetary wages and shall be furnished fringe benefits in accordance with the wages and fringe benefits determined by the Secretary of Labor, or authorized representative, as specified in any wage determination attached to this contract.

(2)(i) If a wage determination is attached to this contract, the Contractor shall classify any class of service employee which is not listed therein and which is to be employed under this contract (i.e., the work to be performed is not performed by any classification listed in the wage determination) 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 class of employees shall be paid the monetary wages and furnished the fringe benefits as are determined pursuant to the procedures in this paragraph (c).

(ii) This conforming procedure shall be initiated by the Contractor prior to the performance of contract work by the unlisted class of employee. The Contractor shall submit Standard Form (SF) 1444, Request For Authorization of Additional Classification and Rate, to the Contracting Officer no later than 30 days after the unlisted class of employee performs any contract work. The Contracting Officer shall review the proposed classification and rate and promptly submit the completed SF 1444 (which must include information regarding the agreement or disagreement of the employees' authorized representatives or the employees themselves together with the agency recommendation), and all pertinent information to the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor. The Wage and Hour Division will approve, modify, or disapprove the action or render a final determination in the event of disagreement within 30 days of receipt or will notify the Contracting Officer within 30 days of receipt that additional time is necessary.

(iii) The final determination of the conformance action by the Wage and Hour Division shall be transmitted to the Contracting Officer who shall promptly notify the Contractor of the action taken. Each affected employee

shall be furnished by the Contractor with a written copy of such determination or it shall be posted as a part of the wage determination.

(iv)(A) The process of establishing wage and fringe benefit rates that bear a reasonable relationship to those listed in a wage determination cannot be reduced to any single formula. The approach used may vary from wage determination to wage determination depending on the circumstances. Standard wage and salary administration practices which rank various job classifications by pay grade pursuant to point schemes or other job factors may, for example, be relied upon. Guidance may also be obtained from the way different jobs are rated under Federal pay systems (Federal Wage Board Pay System and the General Schedule) or from other wage determinations issued in the same locality. Basic to the establishment of any conformable wage rate(s) is the concept that a pay relationship should be maintained between job classifications based on the skill required and the duties performed.

(B) In the case of a contract modification, an exercise of an option, or extension of an existing contract, or in any other case where a Contractor succeeds a contract under which the classification in question was previously conformed pursuant to paragraph (c) of this clause, a new conformed wage rate and fringe benefits may be assigned to the conformed classification by indexing (i.e., adjusting) the previous conformed rate and fringe benefits by an amount equal to the average (mean) percentage increase (or decrease, where appropriate) between the wages and fringe benefits specified for all classifications to be used on the contract which are listed in the current wage determination, and those specified for the corresponding classifications in the previously applicable wage determination. Where conforming actions are accomplished in accordance with this paragraph prior to the performance of contract work by the unlisted class of employees, the Contractor shall advise the Contracting Officer of the action taken but the other procedures in subdivision (c)(ii) of this clause need not be followed.

(C) No employee engaged in performing work on this contract shall in any event be paid less than the currently applicable minimum wage specified under section 6(a)(1) of the Fair Labor Standards Act of 1938, as amended.

(v) The wage rate and fringe benefits finally determined under this subparagraph (c)(2) of this clause shall be paid to all employees performing in the classification from the first day on which contract work is performed by them in the classification. Failure to pay the unlisted employees the compensation agreed upon by the interested parties and/or finally determined by the Wage and Hour Division retroactive to the date such class of employees commenced contract work shall be a violation of the Act and this contract.

(vi) Upon discovery of failure to comply with subparagraph (c)(2) of this clause, the Wage and Hour Division shall make a final determination of conformed classification, wage rate, and/or fringe benefits which shall be retroactive to the date such class or classes of employees commenced contract work.

(3) **Adjustment of Compensation.** If the term of this contract is more than 1 year, the minimum monetary wages and fringe benefits required to be paid or furnished thereunder to service employees under this contract shall be subject to adjustment after 1 year and not less often than once every 2 years, under wage determinations issued by the Wage and Hour Division.

(d) **Obligation to Furnish Fringe Benefits.** The Contractor or subcontractor may discharge the obligation to furnish fringe benefits specified in the attachment or determined under subparagraph (c)(2) of this clause by furnishing equivalent combinations of bona fide fringe benefits, or by making equivalent or differential cash payments, only in accordance with Subpart D of 29 CFR Part 4.

(e) **Minimum Wage.** In the absence of a minimum wage attachment for this contract, neither the Contractor nor any subcontractor under this contract shall pay any person performing work under this contract (regardless of whether the person is a service employee) less than the minimum wage specified by section 6(a)(1) of the Fair Labor Standards Act of 1938. Nothing in this clause shall relieve the Contractor or any subcontractor of any other obligation under law or contract for the payment of a higher wage to any employee.

(f) **Successor Contracts.** If this contract succeeds a contract subject to the Act under which substantially the same services were furnished in the same locality and service employees were paid wages and fringe benefits provided for in a collective bargaining agreement, in the absence of the minimum wage attachment for this contract setting forth such collectively bargained wage rates and fringe benefits, neither the Contractor nor any subcontractor under this contract shall pay any service employee performing any of the contract work (regardless of whether or not such employee was employed under the predecessor contract), less than the wages and fringe benefits provided for in such collective bargaining agreement, to which such employee would have been entitled if employed under the predecessor contract, including accrued wages and fringe benefits and any prospective increases in wages and fringe benefits provided for under such agreement. No Contractor or subcontractor under this contract may be relieved of the foregoing obligation unless the limitations of 29 CFR 4.1b(b) apply or unless the Secretary of Labor or the Secretary's authorized representative finds, after a hearing as provided in 29 CFR 4.10 that the wages and/or fringe benefits provided for in such agreement are substantially at variance with those which prevail for services of a character similar in the locality, or determines, as provided in 29-CFR 4.11, that the collective bargaining agreement applicable to service employees employed under the predecessor contract was not entered into as a result of arm's length negotiations. Where it is found in accordance with the review procedures provided in 29 CFR 4.10 and/or 4.11 and Parts 6 and 8 that some or all of the wages and/or fringe benefits contained in a predecessor Contractor's collective bargaining agreement are substantially at variance with those which prevail for services of a character similar in the locality, and/or that the collective bargaining agreement applicable to service employees employed under the predecessor contract was not entered into as a result of arm's length negotiations, the Department will issue a new or revised wage determination setting forth the applicable wage rates and fringe benefits. Such determination shall be made part of the contract or subcontract, in accordance with the decision of the Administrator, the Administrative Law Judge, or the Board of Service Contract Appeals, as the case may be, irrespective of whether such issuance occurs prior to or after the award of a contract or subcontract (53 Comp. Gen. 401 (1973)). In the case of a wage determination issued solely as a result of a finding of substantial variance, such determination shall be effective as of the date of the final administrative decision.

(g) **Notification to Employees.** The Contractor and any subcontractor under this contract shall notify each service employee commencing work on this contract of the minimum monetary wage and any fringe benefits required to be paid pursuant to this contract, or shall post the wage determination attached to this contract. The poster provided by the Department of Labor (Publication WH 1313) shall be posted in a prominent and accessible place at the worksite. Failure to comply with this requirement is a violation of Section 2(a)(4) of the Act and of this contract.

(h) **Safe and Sanitary Working Conditions.** The Contractor or subcontractor shall not permit any part of the services called for by this contract to be performed in buildings or surroundings or under working conditions provided by or under the control or supervision of the Contractor or subcontractor which are unsanitary, hazardous, or dangerous to the health or safety of the service employees. The Contractor or subcontractor shall comply with the safety and health standards applied under 29 CFR Part 1925.

(i) **Records.** (1) The Contractor and each subcontractor performing work subject to the Act shall make and maintain for 3 years from the completion of the work, and make them available for inspection and transcription by authorized representatives of the Wage and Hour Division, Employment Standards Administration, a record of the following:

(i) For each employee subject to the Act -

- (A) Name and address and social security number;
- (B) Correct work classification or classifications, rate or rates of monetary wages paid and fringe benefits provided, rate or rates of payments in lieu of fringe benefits, and total daily and weekly compensation;
- (C) Daily and weekly hours worked by each employee; and
- (D) Any deductions, rebates, or refunds from the total daily or weekly compensation of each employee.

(ii) For those classes of service employees not included in any wage determination attached to this contract, wage rates or fringe benefits determined by the interested parties or by the Administrator or authorized representative, under the terms of paragraph (c) of this clause. A copy of the report required by subdivision (c)(2)(ii) of this clause will fulfill this requirement.

(iii) Any list of the predecessor Contractor's employees which had been furnished to the Contractor as prescribed by paragraph (n) of this clause.

(2) The Contractor shall also make available a copy of this contract for inspection or transcription by authorized representatives of the Wage and Hour Division.

(3) Failure to make and maintain or to make available these records for inspection and transcription shall be a violation of the regulations and this contract, and in the case of failure to produce these records, the Contracting Officer, upon direction of the Department of Labor and notification to the Contractor, shall take action to cause suspension of any further payment or advance of funds until such violation ceases.

(4) The Contractor shall permit authorized representatives of the Wage and Hour Division to conduct interviews with employees at the worksite during normal working hours.

(j) **Pay Periods.** The Contractor shall unconditionally pay to each employee subject to the Act all wages due free and clear and without subsequent deduction (except as otherwise provided by law or Regulations, 29 CFR Part 4),

rebate, or kickback on any account. These payments shall be made no later than one pay period following the end of the regular pay period in which the wages were earned or accrued. A pay period under this Act may not be of any duration longer than semi-monthly.

(k) **Withholding of Payment and Termination of Contract.** The Contracting Officer shall withhold or cause to be withheld from the Government Prime Contractor under this or any other Government contract with the Prime Contractor such sums as an appropriate official of the Department of Labor requests or such sums as the Contracting Officer decides may be necessary to pay underpaid employees employed by the Contractor or subcontractor. In the event of failure to pay any employees subject to the Act all or part of the wages or fringe benefits due under the Act, the Contracting Officer may, after authorization or by direction of the Department of Labor and written notification to the Contractor, take action to cause suspension of any further payment or advance of funds until such violations have ceased. Additionally, any failure to comply with the requirements of this clause may be grounds for termination of the right to proceed with the contract work. In such event, the Government may enter into other contracts or arrangements for completion of the work, charging the Contractor in default with any additional cost.

(l) **Subcontracts.** The Contractor agrees to insert this clause in all subcontracts subject to the Act.

(m) **Collective Bargaining Agreements Applicable to Service Employees.** If wages to be paid or fringe benefits to be furnished any service employees employed by the Government Prime Contractor or any subcontractor under the contract are provided for in a collective bargaining agreement which is or will be effective during any period in which the contract is being performed, the Government Prime Contractor shall report this fact to the Contracting Officer, together with full information as to the application and accrual of such wages and fringe benefits, including any prospective increases, to service employees engaged in work on the contract, and a copy of the collective bargaining agreement. Such report shall be made upon commencing performance of the contract, in the case of collective bargaining agreements effective at such time, and in the case of such agreements or provisions or amendments thereof effective at a later time during the period of contract performance such agreements shall be reported promptly after negotiation thereof.

(n) **Seniority List.** Not less than 10 days prior to completion of any contract being performed at a Federal facility where service employees may be retained in the performance of the succeeding contract and subject to a wage determination which contains vacation or other benefit provisions based upon length of service with a Contractor (predecessor) or successor (29 CFR Part 4.173), the incumbent Prime Contractor shall furnish the Contracting Officer a certified list of the names of all service employees on the Contractor's or subcontractor's payroll during the last month of contract performance. Such list shall also contain anniversary dates of employment on the contract either with the current or predecessor Contractors of each such service employee. The Contracting Officer shall turn over such list to the successor Contractor at the commencement of the succeeding contract.

(o) **Rulings and Interpretations.** Rulings and interpretations of the Act are contained in Regulations, 29 CFR Part 4.

(p) **Contractor's Certification.**

(1) By entering into this contract, the Contractor (and officials thereof) certifies that neither it (nor he or she) nor any person or firm who

has substantial interest in the Contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of the sanctions imposed under section 5 of the Act.

(2) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract under section 5 of the Act.

(3) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

**(q) Variations, Tolerances, and Exemptions Involving Employment.**

Notwithstanding any of the provisions in paragraphs (b) through (o) of this clause, the following employees may be employed in accordance with the following variations, tolerances, and exemptions, which the Secretary of Labor, pursuant to section 4(b) of the Act prior to its amendment by Public L. 92-473, found to be necessary and proper in the public interest or to avoid serious impairment of the conduct of Government business.

(1) Apprentices, student-learners, and workers whose earning capacity is impaired by age, physical or mental deficiency, or injury may be employed at wages lower than the minimum wages otherwise required by section 2(a)(1) or 2(b)(1) of the Act without diminishing any fringe benefits or cash payments in lieu thereof required under section 2(a)(2) of the Act, in accordance with the conditions and procedures prescribed for the employment of apprentices, student-learners, handicapped persons, and handicapped clients of sheltered workshops under Section 14 of the Fair Labor Standards Act of 1938, in the regulations issued by the Administrator (29 CFR Parts 520, 521, 524, and 525).

(2) The Administrator will issue certificates under the Act for the employment of apprentices, student-learners, handicapped persons, or handicapped clients of sheltered workshops not subject to the Fair Labor Standards Act of 1938, or subject to different minimum rates of pay under the two acts, authorizing appropriate rates of minimum wages (but without changing requirements concerning fringe benefits or supplementary cash payments in lieu thereof), applying procedures prescribed by the applicable regulations issued under the Fair Labor Standards Act of 1938 (29 CFR Parts 520, 521, 524, and 525).

(3) The Administrator will also withdraw, annul, or cancel such certificates in accordance with the regulations in 29 CFR Parts 525 and 528.

(r) **Apprentices.** Apprentices will be permitted to work at less than the predetermined rate for the work they perform when they are employed and individually registered in a bona fide apprenticeship program registered with a State Apprenticeship Agency which is recognized by the U.S. Department of Labor, or if no such recognized agency exists in a State, under a program registered with the Bureau of Apprenticeship and Training, Employment and Training Administration, U.S. Department of Labor. Any employee who is not registered as an apprentice in an approved program shall be paid the wage rate and fringe benefits contained in the applicable wage determination for the journeyman classification of work actually performed. The wage rates paid apprentices shall not be less than the wage rate for their level of progress set forth in the registered program, expressed as the appropriate percentage of the journeyman's rate contained in the applicable wage determination. The allowable ratio of apprentices to journeymen employed on the contract work in any craft classification shall not be greater than the ratio permitted to the Contractor as to his entire work force under the registered program.

(s) **Tips.** An employee engaged in an occupation in which the employee customarily and regularly receives more than \$30 a month in tips may have the

amount of tips credited by the employer against the minimum wage required by section 2(a)(1) or section 2(b)(1) of the Act, in accordance with section 3(m) of the Fair Labor Standards Act and Regulations 29 CFR Part 531. However, that the amount of credit shall not exceed \$1.34 per hour beginning January 1, 1981. To use this provision -

(1) The employer must inform tipped employees about this tip credit allowance before the credit is utilized;

(2) The employees must be allowed to retain all tips (individually or through a pooling arrangement and regardless of whether the employer elects to take a credit for tips received);

(3) The employer must be able to show by records that the employee receives at least the applicable Service Contract Act minimum wage through the combination of direct wages and tip credit; and

(4) The use of such tip credit must have been permitted under any predecessor collective bargaining agreement applicable by virtue of section 4(c) of the Act.

(t) **Disputes Concerning Labor Standards.** The U.S. Department of Labor has set forth in 29 CFR Parts 4, 6, and 8 procedures for resolving disputes concerning labor standards requirements. Such disputes shall be resolved in accordance with those procedures and not the Disputes clause of this contract. Disputes within the meaning of this clause include disputes between the Contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

52.223-6

DRUG-FREE WORKPLACE (JUL 1990)

(a) Definitions. As used in this clause,

"Controlled substance" means a controlled substance in Schedules I through V of Section 202 of the Controlled Substances Act (21 U.S.C. 812) and as further defined in regulation at 21 CFR 1308.11 - 1308.15.

"Conviction" means a finding of guilt (including a plea of nolo contendere) or imposition of sentence, or both, by any judicial body charged with the responsibility to determine violations of the Federal or State criminal drug statutes.

"Criminal drug statute" means a Federal or non-Federal criminal statute involving the manufacture, distribution, dispensing, possession or use of any controlled substance.

"Drug-free workplace" means the site(s) for the performance of work done by the Contractor in connection with a specific contract at which employees of the Contractor are prohibited from engaging in the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance.

"Employee" means an employee of a Contractor directly engaged in the performance of work under a Government contract. "Directly engaged" is defined to include all direct cost employees and any other Contractor employee who has other than a minimal impact or involvement in contract performance.

"Individual" means an offeror/Contractor that has no more than one employee including the offeror/Contractor.

(b) The Contractor, if other than an individual, shall - within 30 calendar days after award (unless a longer period is agreed to in writing for contracts of 30 calendar days or more performance duration); or as soon as possible for contracts of less than 30 calendar days performance duration -



(1) Publish a statement notifying its employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the Contractor's workplace and specifying the actions that will be taken against employees for violations of such prohibition;

(2) Establish an ongoing drug-free awareness program to inform such employees about -

- (i) The dangers of drug abuse in the workplace;
- (ii) The Contractor's policy of maintaining a drug-free workplace;
- (iii) Any available drug counseling, rehabilitation, and employee assistance programs; and
- (iv) The penalties that may be imposed upon employees for drug abuse violations occurring in the workplace.

(3) Provide all employees engaged in performance of the contract with a copy of the statement required by subparagraph (b)(1) of this clause;

(4) Notify such employees in writing in the statement required by subparagraph (b)(1) of this clause that, as a condition of continued employment on this contract, the employee will -

- (i) Abide by the terms of the statement; and
- (ii) Notify the employer in writing of the employee's conviction under a criminal drug statute for a violation occurring in the workplace no later than 5 days after such conviction.

(5) Notify the Contracting Officer in writing within 10 calendar days after receiving notice under subdivision (b)(4)(ii) of this clause, from an employee or otherwise receiving actual notice of such conviction. The notice shall include the position title of the employee;

(6) Within 30 calendar days after receiving notice under subdivision (b)(4)(ii) of this clause of a conviction, take one of the following actions with respect to any employee who is convicted of a drug abuse violation occurring in the workplace:

- (i) Taking appropriate personnel action against such employee, up to and including termination; or
- (ii) Require such employee to satisfactorily participate in a drug abuse assistance or rehabilitation program approved for such purposes by a Federal, State, or local health, law enforcement, or other appropriate agency.

(7) Make a good faith effort to maintain a drug-free workplace through implementation of subparagraphs (b)(1) through (b)(6) of this clause.

(c) The Contractor, if an individual, agrees by award of the contract or acceptance of a purchase order, not to engage in the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance in the performance of this contract.

(d) In addition to other remedies available to the Government, the Contractor's failure to comply with the requirements of paragraphs (b) or (c) of this clause may, pursuant to FAR 23.506, render the Contractor subject to suspension of contract payments, termination of the contract for default, and suspension or debarment.

52.232-25

PROMPT PAYMENT (APR 1989)

Notwithstanding any other payment clause in this contract, the Government will make invoice payments and contract financing payments under the terms and conditions specified in this clause. Payment shall be considered as being made

on the day a check is dated or an electronic funds transfer is made. Definitions of pertinent terms are set forth in 32.902. All days referred to in this clause are calendar days, unless otherwise specified. The term "foreign vendor" means an incorporated concern not incorporated in the United States, or an unincorporated concern having its principal place of business outside the United States.

(a) Invoice Payments.

(1) For purposes of this clause, "invoice payment" means a Government disbursement of monies to a Contractor under a contract or other authorization for supplies or services accepted by the Government. This includes payments for partial deliveries that have been accepted by the Government and final cost or fee payments where amounts owed have been settled between the Government and the Contractor.

(2) Except as indicated in subparagraph (a)(3) and paragraph (c) of this clause, the due date for making invoice payments by the designated payment office shall be the later of the following two events:

(i) The 30th day after the designated billing office has received a proper invoice from the Contractor.

(ii) The 30th day after Government acceptance of supplies delivered or services performed by the Contractor. On a final invoice where the payment amount is subject to contract settlement actions, acceptance shall be deemed to have occurred on the effective date of the contract settlement. However, if the designated billing office fails to annotate the invoice with the actual date of receipt, the invoice payment due date shall be deemed to be the 30th day after the date the Contractor's invoice is dated, provided a proper invoice is received and there is no disagreement over quantity, quality, or Contractor compliance with contract requirements.

(3) The due date on contracts for meat and meat food products, contracts for perishable agricultural commodities, contracts for dairy products, edible fats or oils, and food products prepared from edible fats or oils, and contracts not requiring submission of an invoice shall be as follows:

(i) The due date for meat and meat food products, as defined in Section 2(a)(3) of the Packers and Stockyard Act of 1921 (7 U.S.C. 182(3)) and further defined in Pub. L. 98-181 to include any edible fresh or frozen poultry meat, any perishable poultry meat food product, fresh eggs, and any perishable egg product, will be as close as possible to, but not later than, the 7th day after product delivery.

(ii) The due date for perishable agricultural commodities, as defined in Section 1(4) of the Perishable Agricultural Commodities Act of 1930 (7 U.S.C. 499a(44)), will be as close as possible to, but not later than, the 10th day after product delivery, unless another date is specified in the contract.

(iii) The due date for dairy products, as defined in section 111(e) of the Dairy Production Stabilization Act of 1983 (7 U.S.C. 4502(e)), edible fats or oils, and food products prepared from edible fats or oils, will be as close as possible to, but not later than, the 10th day after the date on which a proper invoice has been received.

(4) An invoice is the Contractor's bill or written request for payment under the contract for supplies delivered or services performed. An invoice shall be prepared and submitted to the designated billing office specified in the contract. A proper invoice must include the items listed in subdivisions (a)(4)(i) through (a)(4)(viii) of this clause.

If the invoice does not comply with these requirements, then the Contractor will be notified of the defect within 7 days after receipt of the invoice at the designated billing office (3 days for meat and meat food products and 5 days for perishable agricultural commodities, edible fats or oils, and food products prepared from edible fats or oils.

Untimely notification will be taken into account in the computation of any interest penalty owed the Contractor in the manner described in subparagraph (a)(6) of this clause.

- (i) Name and address of the Contractor.
- (ii) Invoice date.
- (iii) Contract number or other authorization for supplies delivered or services performed (including order number and contract line item number).
- (iv) Description, quantity, unit of measure, unit price, and extended price of supplies delivered or services performed.
- (v) Shipping and payment terms (e.g., shipment number and date of shipment, prompt payment discount terms). Bill of lading number and weight of shipment will be shown for shipments on Government bills of lading.
- (vi) Name and address of Contractor official to whom payment is to be sent (must be the same as that in the contract or in a proper notice of assignment).
- (vii) Name (where practicable), title, phone number and mailing address of person to be notified in event of a defective invoice.
- (viii) Any other information or documentation required by other requirements of the contract (such as evidence of shipment).

(5) An interest penalty shall be paid automatically by the Government, without request from the Contractor, if payment is not made by the due date and the conditions listed in subdivisions (a)(5)(i) through (a)(5)(iii) of this clause are met, if applicable. An interest penalty shall not be paid on contracts awarded to foreign vendors outside the United States for work performed outside the United States.

- (i) A proper invoice was received by the designated billing office.
- (ii) A receiving report or other Government documentation authorizing payment was processed and there was no disagreement over quantity, quality, or Contractor compliance with any contract term or condition.

(iii) In the case of a final invoice for any balance of funds due the Contractor for supplies delivered or services performed, the amount was not subject to further contract settlement actions between the Government and the Contractor.

(6) The interest penalty shall be at the rate established by the Secretary of the Treasury under Section 12 of the Contract Disputes Act of 1978 (41 U.S.C. 611) that is in effect on the day after the due date, except where the interest penalty is prescribed by other governmental authority.

This rate is referred to as the "Renegotiation Board Interest Rate," and it is published in the Federal Register semiannually on or about January 1 and July 1. The interest penalty shall accrue daily on the invoice payment amount approved by the Government and be compounded in 30-day increments inclusive from the first day after the due date through the payment date. That is, interest accrued at the end of any 30-day period will be added to the approved invoice payment amount and be subject to interest penalties if not paid in the succeeding 30-day period. If the designated billing office failed to

notify the Contractor of a defective invoice within the periods prescribed in paragraph (a)(4) of this clause, then the due date on the corrected invoice will be adjusted by subtracting the number of days taken beyond the prescribed notification of defects period. Any interest penalty owed the Contractor will be based on this adjusted due date. Adjustments will be made by the designated payment office for errors in calculating interest penalties, if requested by the Contractor.

(i) For the sole purpose of computing an interest penalty that might be due the Contractor, Government acceptance shall be deemed to have occurred constructively on the 7th day (unless otherwise specified in this contract) after the Contractor delivered the supplies or performed the services in accordance with the terms and conditions of the contract, unless there is a disagreement over quantity, quality, or Contractor compliance with a contract provision. In the event that actual acceptance occurs within the constructive acceptance period, the determination of an interest penalty shall be based on the actual date of acceptance.

The constructive acceptance requirement does not, however, compel Government officials to accept supplies or services, perform contract administration functions, or make payment prior to fulfilling their responsibilities.

(ii) The following periods of time will not be included in the determination of an interest penalty:

(A) The period taken to notify the Contractor of defects in invoices submitted to the Government, but this may not exceed 7 days (3 days for meat and meat food products and 5 days for perishable agricultural commodities, dairy products, edible fats or oils, and food products prepared from edible fats or oils).

(B) The period between the defects notice and resubmission of the corrected invoice by the Contractor.

(iii) Interest penalties will not continue to accrue after the filing of a claim for such penalties under the clause at 52.233-1, Disputes, or for more than 1 year. Interest penalties of less than \$1.00 need not be paid.

(iv) Interest penalties are not required on payment delays due to disagreement between the Government and Contractor over the payment amount or other issues involving contract compliance or on amounts temporarily withheld or retained in accordance with the terms of the contract. Claims involving disputes, and any interest that may be payable, will be resolved in accordance with the clause at 52.233-1, Disputes.

(7) An interest penalty shall also be paid automatically by the designated payment office, without request from the Contractor, if a discount for prompt payment is taken improperly. The interest penalty will be calculated as described in subparagraph (a)(6) of this clause on the amount of discount taken for the period beginning with the first day after the end of the discount period through the date when the Contractor is paid.

(8) If this contract was awarded on or after October 1, 1989, a penalty amount, calculated in accordance with regulations issued by the Office of Management and Budget, shall be paid in addition to the interest penalty amount if the Contractor -

- (i) Is owed an interest penalty;
- (ii) Is not paid the interest penalty within 10 days after the date the invoice amount is paid; and
- (iii) Makes a written demand, not later than 40 days after the date the invoice amount is paid, that the agency pay such a penalty.

(b) Contract Financing Payments.

(1) For purposes of this clause, "contract financing payment" means a Government disbursement of monies to a Contractor under a contract clause or other authorization prior to acceptance of supplies or services by the Government. Contract financing payments include advance payments, progress payments based on cost under the clause at 52.232-16, Progress Payments, progress payments based on a percentage or stage of completion (32.102(e)(1)) other than those made under the clause at 52.232-5, Payments Under Fixed-Price Construction Contracts, or the clause at 52.232-10, Payments Under Fixed-Price Architect-Engineer Contracts, and interim payments on cost type contracts.

(2) For contracts that provide for contract financing, requests for payment shall be submitted to the designated billing office as specified in this contract or as directed by the Contracting Officer. Contract financing payments shall be made on the 30th day after receipt of a proper contract financing request by the designated billing office. In the event that an audit or other review of a specific financing request is required to ensure compliance with the terms and conditions of the contract, the designated payment office is not compelled to make payment by the due date specified.

(3) For advance payments, loans, or other arrangements that do not involve recurrent submissions of contract financing requests, payment shall be made in accordance with the corresponding contract terms or as directed by the Contracting Officer.

(4) Contract financing payments shall not be assessed an interest penalty for payment delays.

(c) If this contract contains the clause at 52.213-1, Fast Payment Procedure, payments will be made within 15 days after the date of receipt of the invoice.

52.252-6

## AUTHORIZED DEVIATIONS IN CLAUSES (APR 1984)

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

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

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

18-52.209-71

## LIMITATION OF FUTURE CONTRACTING (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 all prospective offerors is invited to FAR Subpart 9.5--Organizational Conflicts of Interest.

(b) The nature of this conflict is access to other companies proprietary software and data.

(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, and as long as such data remains proprietary or confidential, the Contractor shall protect these data from unauthorized use and disclosure and agrees not to use them to compete with those other companies.

18-52.228-75                    MINIMUM INSURANCE COVERAGE (OCT 1988)

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

- (a) Worker's compensation and employer's liability insurance as required by applicable Federal and State workers' compensation and occupational disease statutes. If occupational diseases are not compensable under those statutes, they shall be covered under the employer's liability section of the insurance policy, except when contract operations are so commingled with the Contractor's commercial operations that it would not be practical. The employer's liability coverage shall be at least \$100,000, except in States with exclusive or monopolistic funds that do not permit workers' compensation to be written by private carriers.
- (b) Comprehensive general (bodily injury) liability insurance of at least \$500,000 per occurrence.
- (c) Motor vehicle liability insurance written on the comprehensive form of policy which provides for bodily injury and property damage liability covering the operation of all motor vehicles used in connection with performing the contract. Policies covering motor vehicles operated in the United States shall provide coverage of at least \$200,000 per person and \$500,000 per occurrence for bodily injury liability and \$20,000 per occurrence for property damage. The amount of liability coverage on other policies shall be commensurate with any legal requirements of the locality and sufficient to meet normal and customary claims.
- (d) Comprehensive general and motor vehicle liability policies shall contain a provision worded as follows:

"The insurance company waives any right of subrogation against the United States of America which may arise by reason of any payment under the policy."
- (e) When aircraft are used in connection with performing the contract, aircraft public and passenger liability insurance of at least \$200,000 per person and \$500,000 per occurrence for bodily injury, other than passenger liability, and \$200,000 per occurrence for property damage. Coverage for passenger liability bodily injury shall be at least \$200,000 multiplied by the number of seats or passengers, whichever is greater.

SECTION J  
LIST OF DOCUMENTS, EXHIBITS, AND OTHER ATTACHMENTS

- Exhibit A      Contract Documentation Requirements, 5 pages
- Exhibit B      Contract Security Classification Specification, DD Form 254,  
2 pages
- Exhibit C      Register of Wage Determination and Fringe Benefits, 5 pages
- Exhibit D      Procedures for the Preparation and Approval of Contractor  
Reports for Langley Research Center, Form PROC./P-72,  
October 1989, 6 pages
- Exhibit E      Safety and Health Plan
- Exhibit F      Subcontracting Plan

## EXHIBIT A

CONTRACT DOCUMENTATION REQUIREMENTSI. DOCUMENTATION PREPARATION/SUBMISSION INSTRUCTIONS

A. Financial Management Reports--The Contractor shall comply with the Section I clause of this contract entitled "NASA Financial Management Reporting" by monthly submission of NASA Form 533M. The form shall be prepared and submitted in accordance with the instructions set forth on the reverse side of the form and NASA Handbook "Procedures for Contractor Reporting of Correlated Cost and Performance Data" (NHB 9501.2) as further definitized below.

1. Due not later than the twelfth (12th) operating day following the close of the Contractor's accounting month being reported.

2. Columns 7.b. and d. shall be completed using the time-phased financial baseline plan approved as part of the Management and Operations Plan.

3. Columns 8.a. and b. shall be completed using estimates (forecasts) for the succeeding two (2) months.

## 4. Minimum reporting categories:

Phase-in Costs:

Direct Labor Hours:

Straight Time

Overtime

Total

Direct Labor Costs:

Straight Time (Technical)

Straight Time (Administration)

Overtime

Subtotal

Fringe Benefit Cost

Travel and Training

Recruitment/Relocation

Materials

Overtime Premium Cost

Subtotal

G&A

Total Costs

Fee

Total Cost and Fee



5. Each 533M shall include an attachment sheet detailing by month and by reporting category the planned hours and dollars from the approved financial baseline plan as compared to the actual and currently forecasted hours and dollars.

6. Each 533M shall include a narrative explanation for variances exceeding ten (10) percent between planned hours and dollars and actual hours and dollars for each reporting category.

B. Quarterly Financial Management Report--The Contractor shall submit a quarterly financial report detailed by categories specified in paragraph A.4. above on NASA Form 533Q at times and in accordance with the instructions contained on the reverse side of the form.

C. Management and Operations Plan--Within thirty (30) calendar days after contract award, the Contractor shall submit for the Contracting Officer's approval a comprehensive Management and Operations Plan containing, as a minimum, the following:

1. Personnel and Staffing--Detailed plans for maintaining competent staffing at each organizational level. These plans shall include: your company policies for minimizing turnover and retaining experienced personnel including salary, fringe benefits, leave programs, and performance incentive programs for both professional and non-professional personnel; your recruiting methods and source of personnel for replacement and additional positions; your training and career development programs; methods for accommodating fluctuating workloads and handling personnel absences.

2. Operations Plan--Plans for organizing, assigning resources, and performing each task area outlined in the Statement of Work; tracking and controlling the work. In addition, include a brief description of: the proposed method of controlling actual versus planned costs; procurement functions to be performed at the Contractor's facility/home office; your purchasing practices and procedures; plans for selecting, monitoring and administering any proposed subcontract effort; and policies and procedures for timekeeping including special leave and inclement weather situations.

3. Organization--An organization chart and narrative describing the proposed organization, Contractor/Government interfaces, lines of authority within the organization, and responsibilities and authority of the Key Personnel including a discussion of the proposed managerial authority, autonomy and relationship with the "home office", if applicable.

4. Financial Baseline Plan--A time-phased financial baseline plan, detailing by month how you plan to incur hours and cost for the period; shall be submitted for the first 12-month interval of the initial period. Financial baseline plans for each of the remaining 12-month intervals, and for each 12-months interval of each option period, shall be submitted annually within ten (10) days after the anniversary of the effective date of this contract. These plans shall include the categories described in paragraph A. above. The total estimated costs and levels of effort included in the baseline plans shall equal the contract values for each total contract period (initial period, first option period and second option period).

The Management and Operations Plan shall be updated as required during the contract performance by submission of revised pages for approval of the Contracting Officer.

D. Monthly Progress Report--The Contractor shall submit a monthly progress report summarizing work progress, manpower utilization for assigned work orders, and material expenditures. This report shall be submitted within ten (10) days following the end of the reporting period.

E. Quarterly Accident/Injury Report--The Contractor shall submit a Quarterly Accident/Injury Report within ten (10) days after the end of each quarter.

F. Conformable Wage Rate Agreement--Within fifteen (15) days after the effective date of the contract, the Contractor shall submit a report confirming conformable wage rate agreement as this subject is addressed in the Section I clause entitled "Service Contract Act of 1965," for those individuals employed by the Contractor who are covered by the Service Contract Act, but are not listed in Exhibit C.

G. Collective Bargaining Agreements--The Contractor shall provide the Contracting Officer with copies of any collective bargaining agreements, and amendments thereto, which arise during the course of the contract and which apply to Contractor employees assigned to the contract.

H. Subcontracting Reports--The Contractor shall submit Standard Form 294, Subcontracting Report for Individual Contracts, Standard Form 295, Summary Subcontractor Report, and NASA Form 667, Report on NASA Subcontracts, in accordance with the instructions on the reverse of the form.

I. Annual Skill Mix and Wage Report--Within thirty (30) calendar days after the effective date of the contract and annually thereafter, the Contractor shall make available a skill mix and wage report to include company position title and current hourly rate. Follow-up reports shall be made available within thirty (30) calendar days following the end of each contract year to include the above information as well as the hourly labor rate, percentage of labor escalation (if any) from the previous report, and amount of cash awards and/or bonuses.

Company job titles different from the Government job titles shall be cross referenced (unless new or additional) to the Government titles. Each report shall include an explanation by position for labor escalation which exceeds 4.5 percent from the last report.

J. Technical Reports--When specified in work orders, the Contractor shall prepare formal technical reports conforming to the standards set forth in NASA Langley Form PROC./P-72, Procedures for the Preparation and Approval of Contractor Reports for Langley Research Center, Exhibit F.

II. DOCUMENT DISTRIBUTION REQUIREMENTS--ALTERNATE I (LARC 52.210-96)  
(JUN 1988)

A. Unless otherwise specified elsewhere in this contract, reports and other documentation shall be submitted F.O.B. destination as specified below, addressed as follows:

National Aeronautics and Space Administration  
Langley Research Center  
Attn: \_\_\_\_\_, Mail Stop \_\_\_\_  
Contract NAS1-19385  
Hampton, VA 23665-5225

B. The following letter codes designate the recipients of reports and other documentation which are required to be delivered prepaid to Langley Research Center by the Contractor:

A--Contract Specialist, Mail Stop 126  
B--Contracting Officer Technical Representative, Mail Stop 267  
C--New Technology Representative, Mail Stop 200  
D--Cost Accounting, Mail Stop 135  
E--Safety Manager, Mail Stop 429  
F--Industry Relations Office, Mail Stop 105  
G--Patent Counsel, Mail Stop 143  
H--Program and Resource Division, Mail Stop 104  
I--According to instructions on form

C. The following are the distribution requirements for reports and other documentation required with the numeral following the letter code specifying the number of copies to be provided:

<u>DOCUMENT</u>	<u>LETTER CODE AND DISTRIBUTION</u>
Financial Management Report (NASA Forms 533M and 533Q)	A-1, B-2, D-2, F-1, H-1
Management and Operations Plan and Revisions	A-1, B-2
Monthly Progress Report	A-1, B-3
Quarterly Accident/Injury Report	A-1, B-1, E-1

Conformable Wage Rate Agreement	A-1, B-1, F-1
New Technology Report	C-1, G-1
Collective Bargaining Agreement	A-1, B-1, F-1
Subcontracting Report for Individual Contracts (Standard Form 294)	A-1
Summary Subcontractor Report (Standard Form 295)	A-1, I
Safety and Health Plan Updates	A-1, B-1, E-1
Annual Skill Mix and Wage Report	A-1

D. When the Contract Administrator (A) is not designated above to receive a copy of a report or document, the Contractor shall furnish a copy of the report/document transmittal letter to the Contract Administrator. The Contractor shall also furnish a copy of the transmittal letter and a copy of each Financial Management Report to the delegated Administrative Contracting Officer of the cognizant DoD (or other agency) contract administrative services component.

DEPARTMENT OF DEFENSE CONTRACT SECURITY CLASSIFICATION SPECIFICATION		1. THE REQUIREMENTS OF THE DOD INDUSTRIAL SECURITY MANUAL APPLY TO ALL SECURITY ASPECTS OF THIS EFFORT. THE FACILITY CLEARANCE REQUIRED IS: <b>SECRET</b>			
2. THIS SPECIFICATION IS FOR:		3. CONTRACT NUMBER OR OTHER IDENTIFICATION NUMBER <i>(Prime contracts must be shown for all subcontracts)</i>	4. DATE TO BE COMPLETED <i>(Estimated)</i>	5. THIS SPECIFICATION IS: <i>(See "NOTE" below. If item b or c is "X'd", also enter date for item a)</i>	
X	a. PRIME CONTRACT	a. PRIME CONTRACT NUMBER <b>NAS1-19385</b>	a. <b>06-21-96</b>	X	a. ORIGINAL (Complete date in all cases) <b>05-03-91</b>
	b. SUBCONTRACT (Use item 15 for subcontracting beyond second tier)	b. FIRST TIER SUBCONTRACT NO.	b.		b. REVISED (supersedes all previous specifications) REVISION NO. DATE
	c. REQUEST FOR BID REQUEST FOR PROPOSAL OR REQ FOR QUOTATION	c. IDENTIFICATION NUMBER	c. DUE DATE		c. FINAL DATE
6. Is this a follow-on contract? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No. If YES, complete the following:					
a. PRECEDING CONTRACT NUMBER		b. DATE COMPLETED		c. Accountability for classified material on preceding contract	
7. If <input type="checkbox"/> Yes, transferred to this follow-on contract.					
8a. Name, Address & Zip Code of Prime Contractor *		b. FSC Number	c. Name, Address & Zip Code of Cognizant Security Officer		
Calspan Corp., Service Contract Div. 110A Mitchell Boulevard Tullahoma, TN 37388		OCE50	Defense Investigative Service 2300 Lake Park Drive Smyrna, GA 30080-7606		
9a. Name, Address & Zip Code of First Tier Subcontractor *		b. FSC Number	c. Name, Address & Zip Code of Cognizant Security Officer		
N/A		N/A	N/A		
10a. Name, Address & Zip Code of Second Tier Subcontractor, or facility associated with IPB, RFP OR RFO *		b. FSC Number	c. Name, Address & Zip Code of Cognizant Security Officer		
N/A		N/A	N/A		
* When actual performance is at a location other than that specified, identify such other location in item 15					
10a. General identification of the Procurement for which this specification applies <b>Support services for operation and routine maintenance of the National Transonic Facility.</b>				b. DoDAAD Number of Procuring Activity identified in item 16d <b>803301</b>	
c. Are there additional security requirements established in accordance with paragraph 1-114 or 1-115, [SR? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No. If YES, identify the pertinent contractual documents in item 15.					
1. Are any elements of this contract outside the inspection responsibility of the cognizant security office? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No. If YES, explain in item 15 and identify specific areas or elements.					
11. ACCESS REQUIREMENTS		YES	NO	ACCESS REQUIREMENTS (Continued)	
4. Access to Classified Information Only at other contractor/Government activities.		X		j. Access to SENSITIVE COMPARTMENTED INFORMATION	
5. Receipt of classified documents or other material for reference only (no generation)			X	k. Access to other Special Access Program information (Specify in item 15).	
6. Receipt and generation of classified documents or other material			X	l. Access to U. S. classified information outside the U. S., Panama Canal Zone, Puerto Rico, U. S. Possessions and Trust Territories.	
7. Fabrication/Modification/Storage of classified hardware.			X	m. Defense Documentation Center or Defense Information Analysis Center Services may be requested.	
8. Graphic arts services only.			X	n. Classified ADP processing will be involved.	
9. Access to IPO information.			X	o. REMARKS:	
10. Access to RESTRICTED DATA			X		
11. Access to classified COMSEC information.			X		
12. Cryptographic Access Authorization required.			X		
2. Refer all questions pertaining to contract security classification specification to the official named below (NORMALLY, thru ACO (item 16e); EMERGENCY, direct with written record of inquiry and response to ACO) (thru prime contractor for subcontracts).					
3. The classification guidance contained in this specification and attachments referenced herein is complete and adequate.					
7. Typed name, title and signature of program/project manager or other designated official  <b>William A. Herlihy</b>  <b>Blair B. Gloss</b> <b>2013 3 25 2013</b>			c. Activity name, address, Zip Code, telephone number and office symbol <b>NASA, Langley Research Center Hampton, VA 23665-5225 (804) 864-5113</b>		
NOTE: Original Specification (Item 5a) is authority for contractors to mark classified information. Revised and Final Specifications (Items 5b and c) are authority for contractors to remove the regraded classified information. Such actions by contractors shall be taken in accordance with the provision of the Industrial Security Manual.					

13a. Information pertaining to classified contracts or projects, even though such information is considered unclassified, shall not be released for public dissemination except as provided by the Industrial Security Manual (paragraph 3a and Appendix IX).

b. Proposed public releases shall be submitted for approval prior to release  Direct  Through (Specify):

N/A

to the Directorate For Freedom of Information and Security Review, Office of the Assistant Secretary of Defense (Public Affairs) - for review in accordance with paragraph 3a of the Industrial Security Manual.

\* In the case of non-DoD User Agencies, see footnote, paragraph 3a, Industrial Security Manual.

14. Security Classification Specifications for this solicitation contract are identified below ("X" applicable here(s) and supply attachments as required). Any narrative or classification guide(s) furnished shall be annotated to clearly and precisely identify each element of information which requires a classification. When a classification guide is utilized, that portion of the guide(s) pertaining to the specific contractual effort may be extracted and furnished the contractor. When a total guide(s) is utilized, each individual portion of the guide(s) which pertains to the contractual effort shall be clearly identified in Item 14b. The following information must be provided for each item of classified information identified in an extract or guide:

(I) Category of classification, (II) Date or event for declassification or review for declassification, and (III) The date or event for downgrading (if applicable).

The official named in Item 12b, is responsible for furnishing the contractor copies of all guides and changes thereto that are made a part of this specification. Classified information may be attached or furnished under separate cover.

a. A completed narrative is (1)  attached, or (2)  transmitted under separate cover and made a part of this specification.

b. The following classification guide(s) is made a part of this specification and is (1)  attached, or (2)  transmitted under separate cover. (List guides under Item 13 or in an attachment by title, reference number and date).

c. Service-type contract/subcontract. (Specify instructions in accordance with ISR/ISM, as appropriate.)

d. "X" only if this is a final specification and Item 6 is a "NO" answer. In response to the contractor's request dated \_\_\_\_\_ retention of the identified classified material is authorized for a period of \_\_\_\_\_

e. Annual review of this DD Form 254 is required. If "X" only, provide date such review is due: \_\_\_\_\_

15. Remarks (Whenever possible, illustrate proper classification, declassification, and if applicable, downgrading instructions).

This document serves as written notice of the letting of a classified service contract. The highest level of classification for the contract is SECRET. Access to SECRET hardware and documentation is required.

16a. Contract Security Classification Specifications for Subcontracts issuing from this contract will be approved by the Office named in Item 16b below, or by the prime contractor, as authorized. This Contract Security Classification Specification and attachments referenced herein are approved by the User Agency Contracting Officer or his Representative named in Item 16b below.

REQUIRED DISTRIBUTION:

Prime Contractor (Item 7a)

Cognizant Security Office (Item 7c)

Administrative Contracting Office (Item 16a)

Quality Assurance Representative

Subcontractor (Item 7a)

Cognizant Security Office (Item 7c)

Program/Project Manager (Item 12b)

U. S. Activity Responsible for Overseas Security Administration

ADDITIONAL DISTRIBUTION:

NIS-5/NASA Security

MS 182, Security Branch

b. Typed name and title of approving official

Billy J. Smith  
Security Classification Officer

c. Signature:



d. Approving official's activity address and Zip Code

NASA, Langley Research Center  
MS 182, Hampton, VA 23665-5225

e. Name, address and Zip Code of Administrative Contracting Officer

NASA, Langley Research Center  
MS 126, Hampton, VA 23665-5225

(304) 364-7471

EXHIBIT C  
REGISTER OF WAGE DETERMINATION AND FRINGE BENEFITS

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

Page 1 of 5 pages

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



Alan L. Moss - Division of  
Director Wage Determinations

LOCALITY	State: Virginia			VA
	Area: NASA <u>Langley</u> Research Center in Hampton			223
Wage Determination No.: 78-1030 (Rev. 19) Date: 8-2-90				
Class of Service Employees	Minimum Hourly Wage	Fringe Benefit Payments		
		Health & Welfare	Vacation	Holiday

1. Secretary V	\$9.88
2. Secretary IV	9.46
3. Secretary III	8.62
4. Secretary II	8.10
5. Secretary I	7.00
6. Stenographer II	7.99
7. Stenographer I	7.13
8. Typist II	7.19
9. Typist I	6.02
10. Word Processor II	7.47
11. Word Processor I	6.03
12. File Clerk III	6.53
13. File Clerk II	5.36
14. File Clerk I	4.83
15. Messenger	5.19
16. Receptionist	5.74
17. Switchboard Operator	5.89
18. Switchboard Operator-Receptionist	6.18
19. Order Clerk I	7.75
20. Order Clerk I	5.91
21. Accounting Clerk IV	9.76
22. Accounting Clerk III	8.05



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

53

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

*Alan L. Moss*

Alan L. Moss                      Division of  
 Director                              Wage Determinations

LOCALITY	State; Virginia	VA
	Area: NASA Langley Research Center in Hampton	223

Wage Determination No.: 78-1030 (Rev. 19) Date: 8-2-90

Class of Service Employees	Minimum Hourly Wage	Fringe Benefit Payments			
		Health & Welfare	Vacation	Holiday	Other
23. Accounting Clerk II	\$ 7.73				
24. Accounting Clerk I	6.17				
25. Payroll Clerk	7.10				
26. Key Enter Operator II	7.36				
27. Key Enter Operator I	5.95				
28. Computer Systems Analyst III <u>4/</u>	18.11				
29. Computer System Analyst II <u>4/</u>	15.51				
30. Computer System Analyst I <u>4/</u>	13.72				
31. Computer Programmer III <u>4/</u>	15.01				
32. Computer Programmer II <u>4/</u>	12.64				
33. Computer Programmer I <u>4/</u>	10.23				
34. Computer Operator III	10.07				
35. Computer Operator II	8.43				
36. Computer Operator I	7.19				
37. Peripheral Equipment Operator	6.71				
38. Computer Data Librarian	6.97				
39. Drafter V	15.30				
40. Drafter IV	12.58				
41. Drafter III	10.03				
42. Drafter II	8.23				
43. Drafter I	6.61				
44. Technician III	11.56				

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

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



Alan L. Moss Director Division of Wage Determinations

LOCALITY	State: Virginia	VA
	Area: NASA Langley Research Center in Hampton	223

Wage Determination No.: 78-1030 (Rev. 19) Date: 8-2-90

Class of Service Employees	Minimum Hourly Wage	Fringe Benefit Payments			
		Health & Welfare	Vacation	Holiday	Other
45. Technician II	\$ 9.61				
46. Technician I	7.75				
47. Registered Industrial Nurse 4/	12.62				
48. Emergency Medical Technician 4/	9.42				
49. Inventory Clerk	5.08				
50. Photo Laboratory Technician	7.52				
51. Computer Operator IV	11.58				

Fringe benefits applicable to all service employees employed on the contract:

- |  |    |    |    |    |
|--|----|----|----|----|
|  | 1/ | 2/ | 3/ | 4/ |
|--|----|----|----|----|
- 1/ Life, accident, and health insurance plans, sick leave, pension plans, civic and personal leave, severance pay, and savings and thrift plans: Employer contributions costing and average of \$1.84 per hour computed on the basis of all hours worked by service employees employed on the contract. (See 29 CFR 4.175(b).)
  - 2/ 2 weeks paid vacation after 1 year of service with a contractor or successor; 3 weeks after 10 years. Length of service includes the whole span of continuous service with the present successor contractor, wherever employed, and with predecessor contractors in the performance of similar work at the same Federal facility. (See 29 CFR 4.173).

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

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



Alan L. Moss - Division of  
 Director Wage Determinations

LOCALITY	State: Virginia	VA
	Area: NASA Langley Research Center in Hampton	223

Wage Determination No.: 78-1030 (Rev. 189 Date: 8-2-90)

Class of Service Employees	Minimum Hourly Wage	Fringe Benefit Payments			
		Health & Welfare	Vacation	Holiday	Other

3/ 10 paid holidays per year: New Year's Day, Martin Luther King, Jr.' 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.)

4/ The term "Service employee" does not include any employee who qualifies as an executive, administrative, or professional employee as those terms are identified in Regulations, Part 541, issued under the Fair Labor Standards Act. (See CFR, Part 541.)

55

56 **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 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 actual cost), reimburse all employees for such cleaning and maintenance at a rate of \$3.35 a week (or 67 cents a 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.

**NOTE:** 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 class of employees shall be paid the monetary wages and furnished the fringe benefits as are determined. Such conforming procedure shall be initiated by the contractor prior to the performance of contract work by such unlisted class of employee. A written report of the proposed conforming action, 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, shall be submitted by the contractor to the contracting officer no later than 30 days after such unlisted class of employees performs any contract work. The contracting officer shall review the proposed action and promptly submit a report of the action, together with the agency's recommendation and all 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 4).

PROCEDURES FOR THE PREPARATION AND APPROVAL OF CONTRACTOR  
REPORTS FOR LANGLEY RESEARCH CENTER

GUIDELINES. - The following documents or subsequent editions in effect on date of contract shall serve as the basis for preparation of Contractor Reports:

NASA SP-7047     NASA Publications Guide  
DoD 5220.22-M   Industrial Security Manual for Safeguarding Classified  
Information, November 1986

NOTE: Copies of NASA SP-7047 will be furnished by the Contracting Officer upon request.

FORMAT AND ORGANIZATION. - The format and organization of a Contractor Report should be consistent and follow the practices recommended in the NASA Publications Guide (NASA SP-7047). For questions concerning format, contact Langley Technical Editing Branch at (804) 864-2518. The attached Report Documentation Page (NASA Form 1626) shall be included as the last page in the report.

TRADEMARKS. - U.S. Government policy prohibits endorsing or criticizing commercial products in its publications. Use of trademarks is discouraged. If a trademark must be used, its owner must be credited and the trademark must be used as an adjective modifying the generic name.

REFERENCES. - Material that is not obtainable or available must not be listed in the references. Documents of NASA contracts published as in-house documents must be referenced as NASA CR's, not as NASA Contract Numbers.

SECURITY. - Security markings, when necessary, shall be consistent with DD Form 254, the directive issued by the Security Classification Officer, and shall conform to requirements established in the DoD Industrial Security Manual. For questions concerning security classification, contact LaRC Security Classification Officer at (804) 864-3415.

APPROVAL COPIES.

1. Upon completion of a report, the Contractor shall submit five (5) approval copies to the Contracting Officer for review and approval by NASA. These copies may be reproduced and assembled by an economical means by the Contractor.

2. The Contractor will be notified of acceptance of the approval copy of the report by the Contracting Officer within sixty (60) days. Approval will be contingent upon changes required by NASA. An original master copy in agreement with the approval copy shall be prepared and submitted by the Contractor.

ORIGINAL MANUSCRIPT. - The original manuscript of a Contractor Report shall consist of the master copy of the text, cleanly typed on opaque white paper, from which negatives and printing plates can be made, unscreened glossy prints of photographs, and original artwork of a quality suitable for reproduction by

offset printing. Suggestions for preparing acceptable copy are given in NASA SP-7047. The original manuscript should not be bound and should have consecutive page numbers added in proper sequence. Odd numbered pages are numbered at the bottom of the page on the right; even, on the left. To avoid damage in handling and shipping, the original manuscript should be carefully packaged.

DISTRIBUTION AND DUPLICATION. - From the review made at the Langley Research Center, the Contracting Officer will make a determination concerning publication and distribution, which the Contractor shall complete within thirty (30) days after receipt of approval copies.

1. If NASA Langley Research Center considers that the report should be distributed only in limited quantities, the Contractor shall be requested to prepare duplicates of the original manuscript and distribute the original manuscript and copies (not to exceed 100<sup>1</sup>) in accordance with a distribution list supplied by the Contracting Officer. In this case, the report will be assigned a number in the NASA CR high-numbered series (CR number above 50,000) by the Contracting Officer. When necessary, the Contractor will be provided with any notices to be added to the cover concerning distribution limitations.

2. If the NASA Langley Research Center considers the report of such quality or interest that it warrants wide distribution, it will be recommended to NASA Headquarters for publication in the NASA CR low-numbered series, and the Contractor will be requested to forward the original manuscript, together with up to 25<sup>1</sup> duplicate copies to Langley Research Center addresses furnished by the Contracting Officer. At the direction of the Contracting Officer, advance distribution by the Center may be made to those having a need to know. Printing from the original manuscript for final distribution will be provided by NASA. NASA will include the CR number on the cover and provide the author(s) with 10 copies each of the final printed report. (Author(s) will not receive 10 copies each of restricted distribution reports.)

PRINTING STANDARDS. - To comply with NASA printing requirements and cost considerations, reports submitted should conform to the following standards. Any questions regarding implementation of these standards should be directed to the Langley Printing Management Officer (LPMO) at (804) 864-3284.

1. Multiple-copy production shall be by the offset duplicating method, except as described in subparagraphs 1a and 1b below.

a. Production may be on office copying machines or on diazo equipment when the number of copies is so small that such production is more economical than offset duplicating. However, the images will be clearly legible and permanent.

---

<sup>1</sup>See Clause 18-52.208-81, Printing and Duplicating, for more detailed guidance.

b. Any image that cannot be accommodated by a foldout (as described in paragraph 2 herein) will be produced by the diazo or electrostatic method in a size dictated by legibility requirements.

2. The page image size of cover and text pages including headings will not exceed 7 1/8 x 9 1/8 inches. Page image including page number will not exceed 7 1/8 x 10 inches. Diagrams, charts, drawings, etc., shall be reduced and, if necessary, run broadside to eliminate oversized pages. If such reduction is too great for legibility, the subject will be split and run on two facing pages or run as a foldout with an image not larger than 14 x 9 1/2 inches.

3. Text and foldout pages will be on either of two paper stocks:

a. Offset book paper, white, substance 50 lbs. (basis 25 x 38/1000 sheets, Joint Committee on Printing (JCP) A60).

b. Chemical wood writing paper, white or colored, substance 20 lbs. (basis 17 x 22/1000 sheets, JCP G30).

4. Covers, if necessary, will be on either of two paper stocks:

a. Vellum finish (or antique finish) cover paper, white or colored, substance 50 lbs. (basis 20 x 26/1000 sheets, JCP L20).

b. Chemical wood index paper, white or colored, substance 110 lbs. (basis 25 1/2 x 30 1/2/1000 sheets, JCP K20).

5. Use of tabs is expensive and rarely necessary. First consideration should be given to the use of a contents page. Second choice should be bleed-edge index markers. If tabs must be used, they will be duplicated on one side only, on chemical wood index paper, white or colored, substance 110 lbs. (basis 25 1/2 x 30 1/2/1000 sheets); they will be angle cut and not die cut.


6. All duplicating will be in black ink. If other or additional color is required for a functional purpose, approval in writing must be obtained from the Langley Printing Management Officer (LPMO) through the Contracting Officer before preparation of final reproduction copy.

7. Text pages of all documents produced will be reproduced on both sides of sheet where feasible.

8. Binding will be by fastening with wire staples or stitches, either one in a corner or two in the binding margin. Documents too thick to staple or stitch will be produced in two or more volumes. Prong fasteners, binding screws, plastic combs, and spiral and similar wire fasteners add to production time and costs, and generally their use should be avoided.

9. Plastic protective sheets will not be used.

10. When hard-cover protection of a document is needed, the document will be drilled with three round 1/4 inch or 3/8 inch holes, 4 1/4 inches center-to-center, for insertion into standard 3-ring binders. Special stamped, printed or silk-screened binders shall not be used. A single corner staple or stitch or a band will be used to hold the document together until it is put into a binder.

		Report Documentation Page	
1. Report No.	2. Government Accession No.	3. Recipient's Catalog No.	
4. Title and Subtitle		5. Report Date	
		6. Performing Organization Code	
7. Author(s)		8. Performing Organization Report No.	
		10. Work Unit No.	
9. Performing Organization Name and Address		11. Contract or Grant No.	
		13. Type of Report and Period Covered	
12. Sponsoring Agency Name and Address		14. Sponsoring Agency Code	
15. Supplementary Notes			
16. Abstract			
17. Key Words (Suggested by Author(s))		18. Distribution Statement	
19. Security Classif. (of this report)	20. Security Classif. (of this page)	21. No. of pages	22. Price



## PREPARATION OF THE REPORT DOCUMENTATION PAGE

The last page of a report facing the third cover is the Report Documentation Page, RDP. Information presented on this page is used in announcing and cataloging reports as well as preparing the cover and title page. Thus it is important that the information be correct. Instructions for filling in each block of the form are as follows:

Block 1. Report No. NASA report series number, if preassigned.

Block 2. Government Accession No. Leave blank.

Block 3. Recipient's Catalog No. Reserved for use by each report recipient.

Block 4. Title and Subtitle. Typed in caps and lower case with dash or period separating subtitle from title.

Block 5. Report Date. Approximate month and year the report will be published.

Block 6. Performing Organization Code. Leave blank.

Block 7. Author(s). Provide full names exactly as they are to appear on the title page. If applicable, the word editor should follow a name.

Block 8. Performing Organization Report No. NASA installation report control number and, if desired, the non-NASA performing organization report control number.

Block 9. Performing Organization Name and Address. Provide affiliation (NASA program office, NASA installation, or contractor name) of authors.

Block 10. Work Unit No. Provide Research and Technology Objectives and Plans (RTO) number.

Block 11. Contract or Grant No. Provide when applicable.

Block 12. Sponsoring Agency Name and Address. National Aeronautics and Space Administration, Washington, D.C. 20546-0001. If contractor report, add NASA installation or HQ program office.

Block 13. Type of Report and Period Covered. NASA formal report series; for Contractor Report also list type (interim, final) and period covered when applicable.

Block 14. Sponsoring Agency Code. Leave blank.

Block 15. Supplementary Notes. Information not included elsewhere: affiliation of authors if additional space is re-

quired for block 9, notice of work sponsored by another agency, monitor of contract, information about supplements (film, data tapes, etc.), meeting site and date for presented papers, journal to which an article has been submitted, note of a report made from a thesis, appendix by author other than shown in block 7.

Block 16. Abstract. The abstract should be informative rather than descriptive and should state the objectives of the investigation, the methods employed (e.g., simulation, experiment, or remote sensing), the results obtained, and the conclusions reached.

Block 17. Key Words. Identifying words or phrases to be used in cataloging the report.

Block 18. Distribution Statement. Indicate whether report is available to public or not. If not to be controlled, use "Unclassified-Unlimited." If controlled availability is required, list the category approved on the Document Availability Authorization Form (see NHB 2200.2, Form FF427). Also specify subject category (see "Table of Contents" in a current issue of STAR), in which report is to be distributed.

Block 19. Security Classification (of this report). Self-explanatory.

Block 20. Security Classification (of this page). Self-explanatory.

Block 21. No. of Pages. Count front matter pages beginning with iii, text pages including internal blank pages, and the RDP, but not the title page or the back of the title page.

Block 22. Price Code. If block 18 shows "Unclassified-Unlimited," provide the NTIS price code (see "NTIS Price Schedules" in a current issue of STAR) and at the bottom of the form add either "For sale by the National Technical Information Service, Springfield, VA 22161-2171" or "For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402-0001," whichever is appropriate.

"SAMPLE"


		Report Documentation Page	
1. Report No.	2. Government Accession No.	3. Recipient's Catalog No.	
4. Title and Subtitle Study of Advanced Composite Structural Design Concepts		5. Report Date July 1987	6. Performing Organization Code
		8. Performing Organization Report No. D6-44238-5	10. Work Unit No.
7. Author(s) M. J. Turner and D. L. Grande		11. Contract or Grant No. NAS1-12234	
		13. Type of Report and Period Covered Contractor Report	
9. Performing Organization Name and Address Boeing Commercial Airplane Company P. O. Box 3707 Seattle, WA 98124		14. Sponsoring Agency Code	
		12. Sponsoring Agency Name and Address National Aeronautics and Space Administration Langley Research Center Hampton, VA 23665-5225	
15. Supplementary Notes Langley Technical Monitor: James C. Robinson Final Report			
16. Abstract  (Provide an unclassified abstract not to exceed 150 words.)			
17. Key Words (Suggested by Author(s))  (Provide 4 or 5 key words)		18. Distribution Statement  Unclassified - Unlimited (If contract specifies restricted distribution, state restriction here.)	
19. Security Class. (of this report) Unclassified	20. Security Class. (of this page) Unclassified	21. No. of pages 100	22. Price

EXHIBIT E  
SAFETY AND HEALTH PLAN

NASA/LANGLEY RESEARCH CENTER

CALSPAN  
SAFETY AND HEALTH PLAN

June 22, 1991

Prepared by  
Calspan Service Contracts Division

Prepared for  
Solicitation No. 1-41-3530.2301, "Operation and Routine Maintenance of  
the Ancillary Systems of the National Transonic Facility (NTF)"

## Section 1 INTRODUCTION

This plan provides guidelines to implement a comprehensive and effective safety and health program for Calspan employees supporting NASA Langley Research Center operations, in response to Solicitation 1-41-3530.2301 "Operation and Routine Maintenance of the Ancillary Systems of the National Transonic Facility (NTF)." Calspan will comply with the Federal and State of Virginia Occupational Safety and Health Acts in implementing regulations as the top safety and health standard.

Calspan has a 44-year record of successful experience in conducting testing, maintenance and operations in numerous facilities very similar to the NTF at Langley Research Center. Our excellent record in accident prevention and care of government equipment attests to the strength of our safety program. We know how to implement an effective safety program in a maintenance and operations environment where unusual hazards may exist.

The following corporate goals provide the basis for establishing the safety and health policy, responsibilities, and program elements for our mission at LaRC:

- Prevent accidents
- Protect people
- Protect equipment
- Protect environment
- Comply with regulations, standards, and policies
- Minimize effect of accidents, injuries, and illnesses
- Heighten employee safety/health awareness
- Support new and existing LaRC safety/health program elements

Our proven approach to safety management is summarized in the following three steps:

- 1) *Recognize and evaluate hazards* – Many potential safety and health hazards are eliminated early through effective recognition, planning, and evaluation.
- 2) *Design and implement controls* – Control measures to abate potential safety and health hazards are identified and taken.
- 3) *Document and analyze results* – Records of implemented safety measures --in addition to inspection records, accident investigations, and other safety records--are maintained and analyzed for ways to improve our program.

## 1.1 IMPLEMENTATION

The general provisions of this plan apply to all Calspan employees involved in the work at LaRC. However, requirements for specific program elements identified here will be tailored according to the tasks/tests to be performed.

Because some of our work will be performed in a non-hazardous office environment, not all of the program elements listed here will apply to all workers. But because some of our work may, in fact, extend into hazardous environments, we may at times go beyond the provisions of this plan to ensure safety and health. Task/Test Requests and Work Orders will be evaluated on an individual basis, and safety/health precautionary measures will be tailored according to the work site (office, plant, test facility, instrument area) and the nature of the work to be performed.

Our contract manager will serve as company interface with the NASA Facility Safety Head, Facility Coordinator and the NASA/LaRC Safety Office as appropriate (in accordance with LHB 1740.3, *Facility Safety Head and Facility Coordinator Guide*). The safety coordinator, the instrumentation group leader, will be our designated safety contact for overseeing day-to-day operations. Our other group leaders will be responsible for coordinating safe completion of job tasks within their groups, taking into account the hazards, the work site, and the people involved.

## 1.2 PHILOSOPHY

Because we hold in highest regard the protection of human life, equipment, and the environment, our basic philosophy is grounded in ensuring their protection above all. In the belief that employee attitudes are the foundation of a successful safety and health program in the workplace, we understand the value of instilling in our workers a need to be diligent and thorough in their work in order to minimize risks of all kinds. All first-line supervisors are responsible for accident prevention.

Several methods of employee involvement are used: 1) *Participation*—Every employee is necessarily involved in the safety and health program by being responsible for practicing safety in the workplace; 2) *Communication*—Two-way communication is imperative to effective safety and health management. We underscore the importance of communication not only in our employee/supervisor relationships, but also in our relationships with NASA/LaRC. Open lines must be maintained so that NASA/LaRC is aware—to the extent of their interest—of safety and health concerns in NTF work that we perform; 3) *Training*—An effective training program is essential to ensure safe operations; 4) *Motivation*—Employees will be encouraged to practice increased safety awareness through such programs as periodic safety and health bulletins, inspections, group safety meetings, and training; 5) *Recognition*—Employees whose actions reveal exceptional safety or health awareness will be recognized for their accomplishments.

## Section 2

### POINTS OF CONTACT AND RESPONSIBILITY

Compliance with this Safety and Health Plan is the responsibility of every employee in the Calspan organization—with effective example, control, and guidance provided by management. Line management involvement and accountability are imperative for operating a successful program.

Our contract manager will serve as the Calspan point of contact for NASA regarding safety matters; our safety coordinator will serve as focal point within the company for ensuring safety in day-to-day operations. (Reference Figure 1, “Calspan Safety and Health Responsibilities.”)

#### 2.1 CONTRACT MANAGER

Our contract manager is ultimately responsible for maintaining an effective safety and health program by issuing safety policies, providing guidance and support for safety program development, and holding line management accountable for program implementation.

Primary safety and health responsibilities of the contract manager:

- Reviews and approves Safety and Health Plan every two years (or as necessary) and submits updates to NASA
- Participates occasionally in periodic safety and housekeeping inspections
- Approves significant safety policies and practices
- Advises Facility Coordinator or Facility Safety Head of major safety concerns
- Approves system safety analyses and submits them to NASA
- Routes all work-request documents embodying potential safety concerns through safety coordinator prior to delegating to appropriate group leaders
- Directs overall program implementation through safety coordinator
- Submits quarterly accident/injury reports to NASA
- Ensures recognition for employees showing exceptional safety or health awareness

#### 2.2 GROUP LEADERS

The four group leaders are responsible for seeing that Safety and Health Plan elements are effectively implemented in their groups. They have the working-level managerial responsibility for enforcing administrative policies and motivating employees through example, by enforcing safety rules and correcting hazards. Employees will report unsafe conditions to their group leader.

Primary safety and health responsibilities of the group leaders:

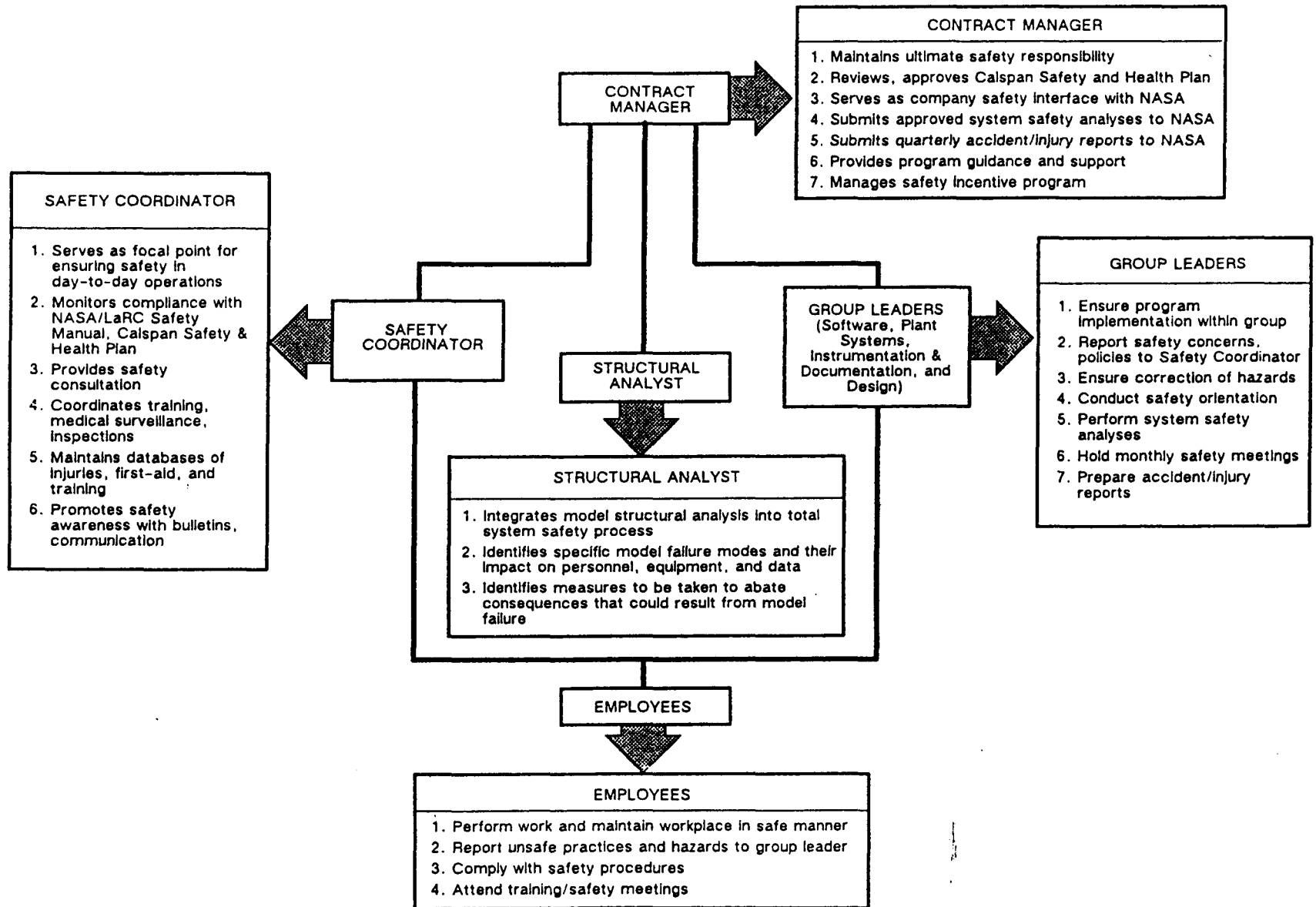


Figure 1 CALSPAN SAFETY AND HEALTH RESPONSIBILITIES



- Report any major safety concerns within their area of jurisdiction to the safety coordinator
- Accompany safety coordinator on work area inspections and arrange corrective action for problems identified during inspections
- Prepare injury and accident reports from activities occurring within their groups
- Provide copies of (or convenient access to) safety policies and procedures (such as the Red Tag procedure)
- Assess requirements for, acquire, and ensure proper usage of personal protective equipment
- Ensure that each job is accomplished in a safe manner
- Conduct safety orientation for new and transferred employees
- Coordinate (through safety coordinator) safety training and/or certification of employees within group
- Analyze Work Order, Task/Test Requests and procedures for safety concerns; ensure that potential hazards are identified, evaluated, and abated, if necessary, prior to initiating work
- Perform system safety analyses
- Arrange and conduct monthly group safety meetings

### **2.3 SAFETY COORDINATOR**

Our safety coordinator, the instrumentation group leader, reports directly to the contract manager, acts as the focal point within the company for safety- and health-related issues, and oversees the day-to-day Calspan work activities to ensure compliance with NASA and Calspan safety policy.

Primary responsibilities of the safety coordinator:

- Reviews and updates Safety and Health Plan
- Monitors compliance with the NASA/LaRC Safety Manual and Calspan Safety and Health Plan
- Coordinates with the NASA/LaRC Safety Office
- Advises group leaders of unsafe working conditions/practices and recommends follow-up for corrective actions
- Acts as safety representative for Calspan employees
- Assists group leaders by assessing, identifying and arranging for training and certification; maintains training records
- Alerts contract manager of safety items requiring his attention

- Conducts inspections to assure adherence to good housekeeping practices and to verify employee compliance with safety practices, hazard-control measures, safe operating procedures and integrated operating procedures
- Assists group leader or contract manager, as required, in investigation of accidents, injuries, and incidents
- Evaluates requirements for job-related physicals and audiograms; ensures that examinations are performed according to established schedule
- Completes and maintains database of recordable work injuries/illnesses and first-aid treatments
- Reviews work-request documents and works with other group leaders to ensure that safety and health issues are identified, assessed, and abated, if necessary, prior to onset of work
- Evaluates certification requirements and arranges for required instruction
- Arranges for periodic distribution of safety- and health-related bulletins to employees
- Assists other group leaders in establishing subject matter for monthly group safety meetings
- Coordinates (with NASA) purchase requests for acquisition of safety-sensitive items or hazardous materials

#### **2.4 STRUCTURAL ANALYST**

The critical safety role of our structural analyst will be to integrate the model structural analysis into the total system safety process for each test entry. He will identify specific model-failure modes and their impact on personnel, equipment and data. He will also identify measures to be taken to abate the consequences that could result from model failure. These analyses will be conducted in compliance with NASA/LaRC Handbook 1710.15.

#### **2.5 ALL EMPLOYEES**

All employees are responsible for performing their work in a safe manner, for maintaining safe work areas (including assigned equipment or tool safety), and for reporting unsafe practices and hazards to the group leader.

Primary safety and health responsibilities of all employees:

- Maintain a working knowledge of and compliance with the LaRC Safety Manual and other safety/health policies, rules and procedures, as applicable to their work
- Attend safety training as scheduled
- Attend group safety meetings as scheduled
- Report accidents, injuries and other incidents immediately to their group leader

### Section 3

## EMPLOYEE SAFETY TRAINING, CERTIFICATION AND PROGRAMS

### 3.1 TRAINING

The safe performance of our work is a direct reflection of the worth and effectiveness of our training and certification programs. Any training required by applicable federal, state, and NASA regulations will be given to appropriate employees. Specific task-oriented instruction and training that can enhance our work effectiveness will also be conducted as needed.

The safety coordinator, with help from group leaders, will evaluate routine safety training needs and prepare a list of training requirements, including subject matter, course frequency, and names of employees to be trained. He will maintain a database to ensure that required training is scheduled and completed.

Calspan will take full advantage of any NASA-provided training applicable to our work. Other training will either be developed by our safety coordinator with the help of other group leaders, be requested through the NASA Safety Engineering Branch, or be obtained from outside sources. Classroom, on-the-job, and individualized training will be performed as required. Monthly group safety meetings will provide good opportunities for informal safety training.

Group leaders will give all new and transferred employees a safety orientation, which includes identification of known hazards in their work area, discussion of safe work practices expected of them, and introduction to the LaRC Safety Manual and other applicable policies.

Training in the following areas will be evaluated and conducted as necessary for Calspan employees:

- Control of hazardous areas
- Cryogenic fluids (handling and transfer)
- Electrical safety
- Emergency response (including facility evacuation procedures for oxygen-deficient atmospheres)
- First aid and CPR
- Forklift safety
- OSHA Hazard Communication
- Lifting/back safety
- Personnel protection (clothing and equipment)
- Potentially hazardous materials
- Respiratory protection

Safety clearance procedures (Red Tag)  
 Safety of pressurized systems

### 3.2 CERTIFICATION

Some Calspan employees will be certified to perform potentially hazardous operations or critical tasks. They will be required to comply with NASA-established certification requirements and demonstrate to the Safety Manager (or designated certifying official), a thorough working knowledge of the task in which they are about to be certified.

Calspan work tasks that will require NASA certifications will include: Special Equipment Operator, Chemical Worker and Confined-Space Monitor as prescribed in LHB 1710.10, OSHA, LHB 1710.12 and LHB 1740.2, respectively. Additionally, Calspan will evaluate other certification needs for critical activities and will work with NASA to provide our employees these certifications. We will develop in-house certifications if approved by NASA.

Group leaders will assess and identify certification requirements within their sections. They are responsible for requesting certification from NASA using Langley Form 66 or SSQRD Form N-201 and for ensuring that required certifications are attained.

### 3.3 SAFETY AWARENESS PROGRAMS

Employee safety/health awareness and involvement is the keystone of a successful program. Employee participation, communication, training, motivation, and recognition are instrumental in minimizing the response time for accidents, injuries, and other health hazards.

Training (paragraph 3.1), certification (paragraph 5.2), inspections (paragraph 5.2), and meetings (paragraph 5.3) are all important tools for heightening safety and health awareness.

Other valuable techniques we will put into practice at LaRC are discussed below:

*Safety Incentive Program* – Employees demonstrating exceptional safety and health awareness will be recognized by one or more of several means: 1) letter of commendation; 2) recognition in our divisional employee newsletter; 3) bulletin board display; 4) safety plaques; and 5) cash awards. Any group leader can recommend such recognition to the contract manager, who will determine the appropriate means of recognition and make the presentation.

*Safety and Health Bulletins* – Our safety coordinator will arrange for periodic distribution of safety and health bulletins to address both on- and off-the-job safety and health issues. The objective of this program is to keep safety awareness—at work as well as at home—at the forefront of every employee's mind.

*Safety and Health Plan* – This plan is distributed to Calspan group leaders to be used as a reference document.

*Langley Research Center Safety Manual* – Calspan will request that NASA/LaRC provide copies of the LaRC Safety Manual to our contract manager, safety coordinator, structural analyst and group leaders. We will require that manuals be kept current and accessible to other employees.

## Section 4

### LaRC SAFETY POLICIES/PROCEDURES

Calspan recognizes the authority of the NASA/LaRC safety organization in safety and health-related matters. We are cognizant of the following Langley Management Instructions and will ensure that our program is operated in accordance with the policies established therein:

- |             |   |
|-------------|---|
| LMI 1700.1, | “Safety Program”                                |
| LMI 1700.2, | “Safety Assignments”                            |
| LMI 1700.3, | “The Executive Safety Board and Its Committees” |

Calspan will enforce all applicable LaRC safety policies and procedures and will ensure that the LaRC Safety Manual is used as our primary reference in safety- and health-related matters. We will also initiate and report any safety and health actions required by NASA/LaRC Work Orders or Task/Test Requests.

We will distribute LaRC safety policies and procedures to employees with job-related needs, allowing sufficient lead time for gaining a working knowledge of the procedure/policy and for necessary training, certification and communication before undertaking the job.

The following Langley Handbooks are among the ones we have become familiar with for NTF operations:

- 1710.4 *Personnel Protection – Clothing & Equipment*
- 1710.5 *Ionizing Radiation*
- 1710.8 *Nonionizing Radiation*
- 1710.10 *Safety Clearance Procedures (Red Tag)*
- 1710.15 *Wind-Tunnel Model Systems Criteria*
- 1710.40 *Safety Regulations Covering Pressurized Systems*
- 1740.1 *NASA Aerospace Pressure Vessel Safety Standard*
- 1740.2 *Facility Safety Head & Facility Coordinator Guide*
- 1740.3 *Facility System Safety Analysis & Configuration Management*
- 1740.4 *NASA Medium Weight Pressure Vessel Safety Standard*
- 1740.5 *NASA Safety Standard for Color Coding, Firefighting and Emergency Vehicles*
- 1740.6, *Personnel Safety Certification*

Our understanding of these handbooks can be demonstrated by this interpretation of LHB 1710.10, *Safety Clearance Procedures (Red Tag)*. Our personnel must be familiar with policies for controlling access to various devices through use of the hold-off tag. Our responsibilities as prescribed in this procedure include: 1) Providing this procedure to all employees having a need-to-know; 2) Conducting training to ensure that appropriate

employees are familiar with the procedure; 3) Verifying that employees comply with the procedure; 4) Submitting recommendations of Calspan employees for Safety Operator appointments to NASA, if appropriate; 5) Ensuring that permit-holding Safety Operators take necessary preliminary actions (voltage checks, pressure checks, grounding, venting, etc.) to make systems and equipment safe before applying red tags to and securing appropriate devices; 6) Identifying a back-up person who checks all tagging done by the Safety Operator; 7) Responding to Facility Coordinator requests for removal of red tags and ensuring they are removed only by Safety Operators; 8) Requiring Safety Operators to document safety clearances as requested by the Facility Coordinator; and 9) Ensuring that Safety Operators comply with clearance procedures stated in LHB 1710.6, *Electrical Safety* and LHB 1710.40, *Safety Regulations Covering Pressurized Systems*.

## Section 5 SAFETY MONITORING AND AREA SAFETY

Compliance with our safety and health program will be monitored through inspections, safety meetings, review of accident/injury/illness data, and communication with employees.

Work Orders and Task/Test Requests to Calspan from LaRC will be monitored for safety and health concerns through an initial review by our safety coordinator who will advise the appropriate group leader of concerns and need for required protective measures. Responsibility for establishing protective measures belongs to the group leader. The ultimate responsibility for performing the work in a safe manner belongs to the employee to whom the work order is assigned.

Protective measures for our operations will vary but may include use of personal protective equipment, use of the safety clearance system (red tags), preparation of procedures, training and certification of employees, physical examinations for certain employees, and good housekeeping.

### 5.1 PERSONAL PROTECTIVE EQUIPMENT

Calspan's first priority is to attempt to eliminate potential hazards so that personal protective equipment is not required. However, because hazards often cannot be abated in this manner, Calspan will provide appropriate protective equipment to protect employees from any hazards that exist. We will comply with LHB 1710.4, *Personnel Protection—Clothing and Equipment*, in use and selection of equipment.

Our group leaders will assess the need for personal protective equipment or clothing for use in potentially hazardous areas, job operations and working conditions. These needs and situations will be identified to the Safety Manager for his review and approval. Group leaders will then be responsible for acquiring equipment and clothing and ensuring that employees using these items are trained in proper use, limitations and care.

Although our requirements for personal protective equipment will vary according to the work we perform, the following is a guideline for protection that may be required for various NTF operations:

*Eye protection (glasses, goggles)* – chemical work, work with pressurized components, handling cryogenics

*Face protection (shields)* – chemical work, handling cryogenics

*Respiratory protection (air-supplying or air-purifying respirators)* – handling cryogenics, chemical work

*Head protection (hard hats)* – overhead hazard exposure



*Arm and hand protection (gloves)* – chemical work, handling cryogenics, electrical contact, working in temperature extremes

*Hearing protection (plugs, muffs)* – work in high-noise areas.

*Protective clothing (aprons, suits)* – chemical work, hazardous materials work, working in temperature extremes

*Foot protection (boots)* – hazardous materials work, handling cryogenics

## 5.2 INSPECTIONS

Calspan uses various types of inspections to evaluate compliance with safety and health rules and regulations, to identify deficiencies, and to implement corrective actions.

The following inspections are recommended:

*Annual safety inspection* – The appropriate group leader will accompany the safety coordinator on annual inspections of all areas where Calspan performs work.

*Spot inspections* – The safety coordinator will periodically make unannounced inspections of work being performed in various areas.

*Fire-safety inspections* – The safety coordinator may accompany the fire department inspector on periodic inspections of our work sites.

*Housekeeping inspections* – Group leaders will be responsible for ensuring that good housekeeping is maintained by performing informal workplace inspections for housekeeping compliance.

We will intermesh our recommended inspection schedule with NASA/LaRC inspections to achieve an effective system. In some situations, our contract manager will participate in inspections to stress the importance of our safety and health program at LaRC.

Group leaders are responsible for arranging any corrective action required as the result of an inspection.

Results of all inspections will be documented and submitted to LaRC as requested.

## 5.3 MONTHLY SAFETY MEETINGS

All employees will attend monthly (and as required) group safety meetings. These meetings create and maintain an active interest in safety, enhance safety communication, and provide a setting for safety training. Typical subjects to be discussed include: injuries, results of inspections, unsafe practices, specific work-order-related safety requirements, operating and emergency procedures, safety standards and policies, and new or changing requirements.

Group leaders, assisted by the safety coordinator, will develop material for and arrange monthly meetings. Attendance and subject matter will be documented in minutes that can be made available to LaRC if requested.

## Section 6

### ACCIDENT INVESTIGATION AND REPORTING

Calspan will investigate accidents that result in injury to personnel or damage to equipment, as well as incidents in which no losses are sustained but potential serious injury or major equipment damage is indicated (near-miss). We will thoroughly investigate these situations to identify causes and develop corrective actions in accordance with LMI 1700.4, "Reporting Accidents, Injuries, Illnesses, Compensation Claims", and "Motor Vehicle Accidents."

The phases following an accident are: response, initial reporting, investigation, analysis, final reporting, and recordkeeping. Our employees will be taught proper response and initial reporting techniques. Accidents will be reported immediately to supervision. NASA/LaRC will be notified in accordance with NASA policies.

Recordable injuries, accidents involving equipment damage, and near-miss incidents will be investigated by the appropriate group leader with assistance from the safety coordinator. If requested by NASA, an investigating committee will be formed, based on the severity or potential severity or complex nature of an accident. Our contract manager will interact with NASA/LaRC to establish required Calspan participation on an investigating committee. Calspan personnel may participate in investigations either directly or as observers. All accidents and injuries shall be reported to the NASA/LaRC Safety Office and resulting investigations shall be coordinated through and with the NASA/LaRC Safety Office.

Reports will be prepared and submitted using appropriate NASA/LaRC reporting formats. The status of corrective actions will be tracked and updated periodically.

The Quarterly Accident/Injury Report will be submitted to NASA by our contract manager within ten days after the end of each quarter. Distribution will be made to the Contract Specialist, the COTR, and the Safety Manager. NASA Form 1627, "Mishap Report," will also be submitted, within one workday after each accident.

#### 6.1 INJURY RECORDS

We will use injury records, maintained as required by OSHA and NASA/LaRC, to analyze our injury experience.

A data base will be used to organize injury and illness records.

Our injury records include:

- OSHA Form 200 – a log and summary of recordable work injuries and illnesses
- NASA Form G-835 – a monthly injury summary, submitted within seven days after the end of each month

- Workman's Compensation Report of Work Injury (an acceptable substitute for OSHA Form 101) – a supplementary record of each recordable work injury
- NASA Form 1627, "Mishap Report," to be submitted within one workday after injury
- Telephonic report (upon COTR agreement)

Work experience will be measured using ANSI Standard Z16.4 as a guide. The quarterly Calspan injury/accident report will provide the injury experience, a brief description of each disabling injury, and accident/incident dollar losses.

We will use our injury/illness data base to analyze trends and identify specific areas or concerns where additional training, evaluation, or other safety and health measures can minimize similar injuries or illnesses in the future. After contract start-up, we will also discuss with the NASA Occupational Health Officer any significant historical injury/illness trends or specific known areas of concern related to the NTF.

## Section 7 HEALTH

Our occupational health objective is to ensure the well-being of our employees and protect them from hazards in the workplace.

Any of our employees performing work that exposes them to toxic substances, harmful physical agents, or physical stress will be given pre-employment physical examinations, where they will be tested according to the needs of the position. These initial exams will serve as baselines for comparison to later periodic medical examinations to monitor their exposure to such potentially hazardous operations.

A hearing-conservation program will be implemented where noise levels are above the Langley-specified dBA levels. Our hearing-conservation program will include hearing protection, employee training, annual audiograms and noise-area surveys, as required.

Upon termination of employment, employees who have been in a medical surveillance program because of exposure to a health stress will be given a final medical examination to document outgoing health status.

Our safety coordinator will consult with NASA's Occupational Health Officer to establish the need for and frequency of medical examinations and audiograms for Calspan employees. We will maintain these records in a database to ensure scheduling and accomplishment of required physicals. We will periodically review this information and update it as necessary.

Calspan will use the medical facilities provided by LaRC for audiograms and treatment of occupational injuries and illnesses. We will provide the appropriate NASA contact with lists of our employees requiring audiograms and work with that person as requested to schedule our employees for such examinations. Pre-employment, periodic and post-employment examinations will be performed by a qualified local physician as required.

Calspan will have first-aid and CPR-certified employees and back-ups in all work areas on each shift.

## Section 8

### HAZARDOUS OPERATIONS

Protection of employees from hazardous operations, through employee awareness programs and full compliance with applicable rules and regulations, is provided as part of this plan.

All employees are responsible for identifying and informing supervisors of hazardous situations discovered in their work area. Group leaders are responsible for whatever evaluation and control of hazards is required.

#### 8.1 DESCRIPTION OF HAZARDS

Individual test/task requests will be analyzed for potentially hazardous operations. Specific hazards that Calspan may encounter at LaRC include:

- Model and model-support system failures
- Hydraulic system line ruptures
- LN<sub>2</sub> transfer equipment problems (valve failures, line ruptures, water freezing in lines, etc.)
- Exposure to cryogenics (LN<sub>2</sub>)
- Exposure to materials having flammable, corrosive, or asphyxiatory properties
- Exposure to non-ionizing radiation (lasers, microwave and radio frequency equipment, infrared devices, etc.)
- Work with pressurized equipment
- Exposure to high-pressure air
- Exposure to temperature extremes
- Exposure to high noise levels
- Work with systems that use, store, or distribute significant levels of electrical energy

#### 8.2 HAZARD AWARENESS

Group leaders, assisted by the safety coordinator, are responsible for ensuring that employees are aware of hazards to which they are exposed, as well as protective measures to be employed. Calspan will increase employee awareness of hazards through the following:

- Provide training and certification as required to employees engaged in hazardous work
- Provide access to safety standards, policies, and procedures
- Conduct monthly group safety meetings to identify hazards to employees

- Employ warning signs, red tags, barricades, and other visible means of hazard identification
- Provide Material Safety Data Sheets to employees as required and train them in interpretation
- Issue periodic safety and health bulletins

### 8.3 PROPER CONDITIONS AND SAFEGUARDS

We will implement guidance—when appropriate—obtained from the following Langley Handbooks and other LaRC documents while working with the corresponding hazardous operations:

- 1740.1, *NASA Aerospace Pressure Vessel Safety Standard*
- 1740.4, *NASA Medium Weight Pressure Vessel Safety Standard*
- 1710.6, *Electrical Safety Manual*
- 1710.5, *Ionizing Radiation*
- 1710.8, *Non-ionizing Radiation*
- 1710.12, *Potentially Hazardous Materials*
- 1710.40, *Safety Regulations Covering Pressurized Systems*

Calspan will follow procedures established in LHB 1710.12 and the OSHA Hazard Communication Standard to ensure safe acquisition, use, storage, and disposal of potentially hazardous materials.

We will contact the appropriate NASA Facility Safety Head prior to initiating any activity involving hazardous materials. During the planning stage, Calspan will encourage selection of the least hazardous material that can effectively be used.

Any employee working with a hazardous material will be issued a Material Safety Data Sheet (MSDS) and will be trained in the following: 1) How to obtain and use MSDSs; 2) Precautions for safe use, handling, storage, and disposal of the material; 3) Safety and health hazards of the material; 4) Personal protective clothing and equipment required; and 5) Emergency response procedures. This training will be accomplished prior to receipt of the material.

Additional requirements with which we will comply include Chemical Worker certification, proper labeling and posting, and medical surveillance of exposed employees.

### 8.4 HAZARD ABATEMENT

Hazards identified through inspections, employee/management communication, injury reports, accident reports, safety meetings and training sessions will be evaluated and abated through various means. System safety analyses will result in abatement actions. Hazards are corrected on a worst-first basis, depending on the availability of resources. Group leaders are responsible for tracking and recording the status of correction actions.

Methods of control include use of the Red Tag system, audible and visual warnings, training, barricading, safety signs and markers, and personal protective equipment. (Procedures, policies, and standards explain these tools.)

#### **8.4.1 Order of Precedence of Corrective Actions**

Calspan will eliminate, control, or permanently reduce hazard severity by the following methods:

1. *Engineering controls* – Potential hazards will be eliminated during the pretest planning or design phases through a systematic review of specifications, drawings and plans. Hazards subsequently identified will be eliminated or controlled by modifying the item in question or by installing protective devices or guards.
2. *Administrative changes* – If engineering controls cannot be applied, procedural changes will be made. Operations can be restricted in some way, training can be conducted, and/or frequent inspections can be done.
3. *Personal protective equipment* – If neither engineering nor administrative controls can be successfully used to eliminate hazards, employees will be safeguarded through proper use of personal protective equipment.

#### **8.4.2 Hazard Reporting**

Successful mishap prevention depends on early recognition and reporting of hazards and deficiencies for correction before an accident occurs.

All employees are responsible for reporting potential hazards, which may include unsafe conditions/methods and design deficiencies. The reporting sequence should be as follows: 1) Employees should first report the hazard to the group leader; 2) The group leader attempts to correct the hazard, if feasible, or apply interim control measures; 3) If unable to be corrected by the group leader, the problem is turned over to the appropriate group for correction; 4) The hazard, if still not abated, should be reported to the contract manager who will involve NASA to initiate corrective action.

Any life-threatening activity will be immediately halted until abatement measures can be taken.

## Section 9 EQUIPMENT INSPECTION/REPAIR

Calspan will comply with NASA-established guidance for daily checkout, routine maintenance and regular inspection and repair of NTF electrical and mechanical equipment essential for safe operations.

We will immediately correct (if possible) any problems discovered through inspections or pre-operating procedures. We will assess the seriousness of any problem, and the system or piece of equipment will not be activated until safe operation can be assured. If timely corrective action by Calspan is not feasible, we will take appropriate interim measures and identify the problem to the NASA/Technical Monitor using the Problem/Failure Report.

Facility support systems (high-pressure air, cooling water, nitrogen supply, nitrogen vent, hydraulic systems and lubrication systems) will be cleared for operational readiness using checklists prior to each tunnel operational period. Following testing, post-operation checkout will ensure safety of all systems.



## Section 10 OTHER SAFETY AND HEALTH CONSIDERATIONS

### 10.1 SYSTEM SAFETY

Calspan will apply system safety analysis—based on MIL-STD-882-A and tailored to LaRC—to all test projects and work operations in the NTF to identify, evaluate, and abate risks. Our objective is to ensure that safety—consistent with the LaRC mission requirements—is incorporated into all NTF work activities in a timely, effective manner.

Our contract manager will appoint one of the following employees as the system safety evaluator for the test project: structural analyst, instrumentation group leader or software group leader.

The system safety evaluator will determine the need for performing an analysis. Analyses will always be performed for: test projects, facility system changes, high-risk operations, confined spaces, personnel hazards, equipment hazards and environmental threats. Analyses will sometimes be performed for: facility improvement and modernization, maintenance and repair, software evaluation, procedure evaluation and mishap evaluation.

If an analysis is not required, the rationale will be documented in the project file and submitted to NASA, if requested,

If an analysis is required, the system safety evaluator will gather information required and perform the analysis. Risks assessed in terms of severity and probability will be coded to establish degree-of-risk-suppression priority.

When the analysis proves that corrective action is not required because an acceptable risk assessment code is identified, the system safety evaluator documents the rationale in the project file and submits it to NASA, as requested.

When corrective action is required, the system safety evaluator with the aid of the appropriate group leader(s) is responsible for determining and documenting safety countermeasures to lower risks to acceptable levels.

Finally, the evaluator routes the completed analysis through our contract manager to NASA for final approval.

### 10.2 SMOKE-FREE ENVIRONMENT

Numerous studies have determined that smoking can contribute to a wide variety of health problems as well as create economic liability through contamination of equipment and other factors. Calspan will encourage smokers to quit. At LaRC we will require that our employees comply with existing NASA/LaRC smoking policies.

### 10.3 ENVIRONMENTAL PROTECTION

Our safety coordinator will evaluate NASA Work Orders and Task/Test Requests for any known potential for noise, air, water, or soil pollution and will notify the proper NASA point-of-contact in order to facilitate compliance with applicable NASA and EPA regulations.

Environmental concerns will also be evaluated in the system safety analysis process.

Calspan will follow established procedures, such as LMI 1700.6, for disposal of any hazardous wastes generated during completion of our work orders.

### 10.4 EMERGENCY RESPONSE

Effective employee training will help keep incidents and accidents to a minimum. Job conscientiousness will be stressed in order to minimize the human error that frequently is the cause of an incident.

Immediate response to emergencies (hurricanes, high tides, accidents, building evacuations, injuries, spills, fires) in the initial phase is critical. In our monthly safety meetings we will teach employees simple actions that can be taken immediately that will help until professionals arrive. Sometimes this response will not go beyond facility evacuation; at other times, response may include notifying professional help or performing simple utility or equipment shutoffs. Training session topics will include basics—fire extinguisher usage, evacuations, and safe and simple emergency instructions.

Of particular concern at the NTF is proper evacuation when an oxygen deficiency is present. When alarms indicate O<sub>2</sub> levels below 16%, the group leader or designated representative will account for all personnel by head count. Evacuation procedures for oxygen-deficient environments will be taught and practiced as part of our safety training.

We will post simple emergency instructions for immediate actions in events such as natural disasters, fire, accidents, or injuries. Appropriate personnel will have access to LHB 1047.1, *Disaster Control Data—Hurricanes and High Tides—LaRC Buildings and Equipment*. We will also ensure that emergency procedures for hazardous operations we perform are maintained in a prominent location accessible to all employees.

As required, Calspan will prepare reports, identify and implement corrective actions and share any such information with LaRC.

### 10.5 INDUSTRIAL HYGIENE

Calspan will employ any NASA-provided industrial hygiene support required by our work at LaRC. We will request assistance in the following areas: guidance for use of potentially hazardous materials, monitoring for personnel exposure, evaluation of potential health hazards in our workplace, and health-related training.

## **10.6 Vehicle And Pedestrian Safety**

All Calspan employees will be required to comply with vehicle and pedestrian safety rules established at LaRC. We will ensure that our employees have copies of LMI 1700.7, "Traffic Regulations," and LMI 1700.8, "Parking Regulations."

## **10.7 DRUG-FREE WORKPLACE**

Calspan will ensure compliance with FAR Clause 52.223-6, Drug-Free Workplace by notifying all employees in writing that unlawful manufacture, distribution, dispense, possession or use of a controlled substance is prohibited in the workplace. Employees will be notified of specific actions the company will take for any violations of this prohibition.

We will implement a drug awareness program to keep employees informed of the dangers of drug abuse, Calspan's policy of maintaining a drug-free workplace, available drug counseling, rehabilitation and employee assistance programs and penalties for drug use violations in the workplace.

Employees will be notified in writing that they must abide by Calspan's policy and that they must notify Calspan in writing within five days of a criminal drug conviction occurring in the workplace. Calspan will notify the Contracting Officer within 10 days after receiving such notice. Within 30 days after receiving notice of an employee conviction, Calspan will take appropriate personnel action and require the employee to participate in an approved drug abuse assistance or rehabilitation program.

Calspan's drug-free awareness program, including all of the above elements, will be documented and provided to all Calspan employees within 30 calendar days of contract award.

EXHIBIT F  
SUBCONTRACTING PLAN

NASA/LANGLEY RESEARCH CENTER

CALSPAN  
SUBCONTRACTING PLAN

JANUARY 1991

Prepared by  
Calspan Service Contracts Division

Prepared for  
Solicitation No. 1-41-3530-2301, "Operation and Routine Maintenance of  
the Ancillary Systems of the National Transonic Facility (NTF)"

In accordance with U.S. Government policy as defined in the Small Business Act, amended October 1978 (P.L. 95-507) and supplemental Executive Orders, Calspan Corporation's plan for subcontracting to small business and small disadvantaged business, under the solicitation noted above, is outlined herein.

## 1. SUBCONTRACTING GOALS

Calspan has made a thorough assessment of the task areas within the Statement of Work. Considering the broadbased experience available through Calspan Corporation resources and recognizing the interactive, labor-intensive tasks, Calspan does not plan to subcontract any of the technical support services labor hours. Therefore, Calspan's subcontracting plan is based on the government's estimated material requirements for the proposed contract.

The following goals (expressed both as dollar values and in terms of the percentage of total subcontract dollars) are applicable to the contract awarded under the referenced solicitation.

Total Small and Small Disadvantaged Business	40%
To Small Business	35%
To Small Disadvantaged Business	5%

## 2. DOLLAR VALUE OF SUBCONTRACTS *(Including Material, Contracted Clerical Support and Travel)*

Calspan's goals are based on the following estimates of combined contract value:

Total Estimated Subcontract Value	\$679,450
Total Small and Small Disadvantaged Business	\$271,781
To Small Business	\$237,808
To Small Disadvantaged Business	\$ 33,973

The following table presents these goals by contract period.

Contract Period	Total Subcontracting Goal	To Small Business	To Small Disadvantaged Business
Initial	\$244,779	\$85,673	\$12,239
First Option	123,972	43,390	6,199
Second Option	251,299	87,955	12,565
3rd-8th Option	<u>59,400</u>	<u>20,790</u>	<u>2,970</u>
Total	\$679,450	\$237,808	\$33,973

#### 4. SUBCONTRACTOR SELECTION PROCEDURES

Arrangements for a subcontract are initiated in coordination with our government-approved procurement system by preparing a Request for Procurement (RFP) to be sent to all potential subcontractors and prepared in conjunction with inputs from the group leaders and contract manager. Competitive procurement procedures are routinely followed as defined by the Competition in Contracting Act and FAR. Bidders are solicited via the RFP, and proposals are received in conjunction with the required schedule of the prime contract. The proposals are evaluated in the following areas: technical approach and competence, past performance, cost control, and management capabilities. Upon determination of the selected subcontractor, and with the concurrence of the Contracting Officer, negotiations are initiated with the subcontractor.

#### 5. METHOD FOR IDENTIFYING SOURCES

Sources for technical services are identified by examining source references (listed below); discussing requirements with the Small Business Administration representative in Nashville, Tennessee; and canvassing the local market. Potential sources are asked to submit statements of capability and interest.

Source references:

- Small Business Administration Procurement Automated Source System
- National Minority Business Directory - *Try Us*
- Department of Defense Small Business Directory
- Small Business Administration Registry of Minority Firms
- Department of Defense Minority Business Directory
- Small Disadvantaged Business Concerns Source List (compiled in-house)

#### 6. INDIRECT COSTS

Indirect costs have not been included in the goals specified in paragraph 1.

#### 7. ADMINISTRATION

This subcontracting plan will be administered by Mr. Stephen T. Cope, Manager of Administration at the Service Contracts Division headquarters in Tullahoma, TN, phone (615) 455-4791. He will coordinate with the contract manager at NASA/LaRC. His duties include keeping top management advised of the small business subcontracting program, preparing and submitting the required quarterly reports, conducting reviews with government representatives, and providing liaison with company officials on small and small disadvantaged sources and procurements.

## **8. EFFORTS TO ENSURE COMPETITION**

Written documentation is required as part of every Calspan procurement in excess of \$500, showing the extent of competition among small and small disadvantaged vendors, the reasons for awarding to the successful bidder, and reasons why small or small disadvantaged business did not win the award when such is the case. In addition, instructions are routinely given to appropriate personnel regarding the requirements of the Small Business Act (P.L.95-507) and the goals and objective of this plan.

## **9. FLOW DOWN**

This subcontracting plan will be administered in accordance with the requirements of P.L.95-507 and Calspan's procedures to assure equitable competition under the statutes and the flowdown of required clauses under the Prime Contract and Federal Acquisition Regulation (FAR) to each required subcontracting tier. Calspan agrees to include the following clauses in any subcontract it issues, when required:

- FAR 52.219-8 Utilization of Small Business and Small Disadvantaged Business Concerns
- FAR 52.219-9 Small Business and Small Disadvantaged Subcontracting Plan

## **10. SURVEY AND REPORTS**

Calspan agrees to submit additional periodic reports and cooperate in any studies or surveys as may be required by a federal agency to the Small Business Administration in order to determine that extent of compliance with this subcontracting plan.

## **11. RECORDS**

Calspan will maintain records which demonstrate that procedures have been adopted to comply with the requirements and goals of this plan. These include:

- a. Source lists, guides, and other data that identify small and small disadvantaged business concerns.
- b. Organizations contacted in an attempt to locate sources that are small and disadvantaged business concerns.
- c. Organizations contacted in an attempt to locate sources that are small and disadvantaged business concerns.
- d. Records of outreach efforts to contact small and small objectives (such as workshops, seminars, and training) and performance-monitoring to evaluate compliance with program requirements.
- e. Records of internal actions to support program objectives (such as workshops, seminars, and training) and performance-monitoring to evaluate compliance with program requirements.



- f. Records (on a contract-by-contract basis) to support award data submitted to the government including the name, address, and business size of each subcontractor.
- g. Quarterly summary subcontracting reports submitted to the government.