

FOIA REDACTED COPY

NASA/KSC Contract No. NAS10-03006

**University-Affiliated Spaceport Technology
Development Contract (USTDC)**

SOLICITATION, OFFER AND AWARD		1. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 350)		RATING	PAGE
2. CONTRACT NO.	3. SOLICITATION NO.	4. TYPE OF SOLICITATION	5. DATE ISSUED	DO-C9	1 OF 62
NAS1003006		SEALED BID (IFB) NEGOTIATED (RFP)			6. REQUISITION/PURCHASE NO.
7. ISSUED BY			CODE	8. ADDRESS OFFER TO (If other than Item 7)	
NASA/John F. Kennedy Space Center Mail Code SEB-USTDC Kennedy Space Center, FL 32899					

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

9. Sealed offers in original and _____ copies for furnishing the supplies or services in the Schedule will be received at the place specified in Item 8, or if hand carried, in the depository located in _____ until _____ local time, on _____ (date).
CAUTION - LATE Submissions, Modifications, and Withdrawals: See Section L., Provision No. 52.214-7 or 52.215-1. All offers are subject to all terms and conditions contained in this solicitation.

10. FOR INFORMATION CALL:	A. NAME	B. TELEPHONE NO. (NO COLLECT CALLS)	C. EMAIL ADDRESS
	John M. Vondenhuevel	AREA CODE: (321) NUMBER: 476-4756 EXT.	John.Vondenhuevel-1@ksc.nasa.gov

(X)	.SEC.	DESCRIPTION	PAGE(S)	(X)	SEC.	DESCRIPTION	PAGE(S)
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NOTE: Item 12 does not apply if the solicitation includes the provisions at 52.214-16, Minimum Bid Acceptance Period.

12. In compliance with the above, the undersigned agrees, if this offer is accepted within 180 calendar days (60 calendar days unless a different period is inserted by the offeror) from the date for receipt of offers specified above, to furnish any or all items upon which prices are offered at the price set opposite each item, delivered at the designated point(s), within the time specified in the schedule.

13. DISCOUNT FOR PROMPT PAYMENT (See Section I, clause No. 52-232-8)	10 CALENDAR DAYS	20 CALENDAR DAYS	30 CALENDAR DAYS	15 CALENDAR DAYS
	%	%	%	.25 %

14. ACKNOWLEDGMENT OF AMENDMENTS (The offeror acknowledges receipt of amendments to the SOLICITATION) or offerors and related documents numbered and dated:	AMENDMENT NO	DATE	AMENDMENT NO	DATE
	1-2	7/28/02-7/23/02	4	8/9/02
	3	8/7/02	5	11/7/02

5. NAME AND ADDRESS OF OFFEROR	CODE	1CZZ9	FACILITY	15. NAME AND TITLE OF PERSON AUTHORIZED TO SIGN OFFER (Type or print)
ASRC Aerospace Corporation 6301 Ivy Lane, Suite 300 Greenbelt, MD 20770				Carl R. Werner, Exec. VP Business Operations

59. TELEPHONE NO. (Include area code)	15C. CHECK IF REMITTANCE ADDRESS IS DIFFERENT FROM ABOVE - ENTER SUCH ADDRESS IN SCHEDULE	17. SIGNATURE	18. OFFER DATE
(301) 345-4500			12/13/02

AWARD (To be completed by Government)

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

2. AUTHORITY FOR USING OTHER THAN FULL AND OPEN COMPETITION	10 U.S.C. 2304(c) ()	41 U.S.C. 253(c) ()	23. SUBMIT INVOICES TO ADDRESS SHOWN IN: (4 copies unless otherwise specified)	ITEM

1. ADMINISTERED BY (If other than Item 7)	CODE	25. PAYMENT WILL BE MADE BY	CODE
NASA/John F. Kennedy Space Center Mail Code OP-OS ATTN: John Vondenhuevel Kennedy Space Center, FL 32899		NASA Kennedy Space Center Mail Code GG-B-C2 Kennedy Space Center, FL 32899	

1. NAME OF CONTRACTING OFFICER (Type or print)	27. UNITED STATES OF AMERICA	28. AWARD DATE
James E. Hattaway, Jr.		Feb. 10, 2003

PORTANT - Award will be made on this Form, or on Standard Form 26, or by other authorized official written notice.

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SECTION B - SUPPLIES OR SERVICES AND PRICE/COSTS**B.1 SUPPLIES AND/OR SERVICES TO BE FURNISHED AND TYPE OF CONTRACT**

(a) This is a cost reimbursement award fee/incentive fee, indefinite delivery, indefinite quantity contract. Contract performance will be evaluated both objectively and subjectively as described elsewhere in this contract. Work will be authorized via Task Orders, the value of which will be incorporated in B.2 Contract Value, Award Fee, and Incentive Fee by contract modification.

(b) The minimum order and maximum order values by contract period for this contract, as required by FAR 52.216-22, Indefinite Quantity, are shown below. The minimum and maximum values are inclusive of estimated cost and all applicable fees. The maximum order limitations for the base contract period are further limited by Government fiscal year in accordance with clause B.4 Order Limitations.

Minimum and Maximum Order Values

<u>Contract/Ordering Period</u>	<u>Minimum</u>	<u>Maximum</u>
Base Period		
3/01/03 – 9/30/07	\$1,000,000	\$220,000,000
Option 1		
10/01/07 – 9/30/08	\$1,000,000	\$65,000,000
Option 2		
10/01/08 – 9/30/09	\$1,000,000	\$70,000,000
Option 3		
10/01/09 – 9/30/10	\$1,000,000	\$75,000,000
Option 4		
10/01/10 – 9/30/11	\$1,000,000	\$85,000,000
Option 5		
10/01/11 – 9/30/12	\$1,000,000	\$85,000,000

B.2 CONTRACT VALUE, AWARD FEE, AND INCENTIVE FEE

(a) Contract Value

The Contract Value is comprised of the estimated cost, award fee, and incentive fee reflected in Table B-1, Contract Value. The adjusted target cost for award fee performance evaluation purposes, the amount of available award fee (AAF), and the earned award fee (EAF) are reflected in Table B-2, Adjusted Target Cost & Award Fees. The available incentive fee (AIF) and earned incentive fee (EIF) are reflected in Table B-3, Incentive Fee.

Table B-1				
Contract Value				
Contract Period	Estimated Cost*	Award Fee**	Incentive Fee***	Contract Value
Base Period				
03/01/03 to 9/30/07				
Option 1				
10/01/07 - 9/30/08				
Option 2				
10/01/08 - 9/30/09				
Option 3				
10/01/09 - 9/30/10				
Option 4				
10/01/10 - 9/30/11				
Option 5				
10/01/11 - 9/30/12				
Totals:				

*Estimated cost will initially equal the adjusted target cost plus other direct costs. However, as actual costs are reported, projected and/or finalized for CY1 the estimated cost will be adjusted accordingly. Subsequently the estimated cost will equal the "adjusted" estimated cost for CY1 plus the target cost for the subsequent CY until such time as the subsequent CY's target cost is "adjusted." This process will be repeated throughout the contract.

**Award fee equals the sum of the available award fee for the current contract year plus the earned award fee for completed contract years as reflected in Table B-2.

*** Incentive fee equals the available incentive fee for the current contract period plus the earned incentive fee from completed contract periods as reflected in Table B-3.

(b) Computation of Available Fees**(1) Available Fees**

The AAF reflected in Table B-2 and the AIF reflected in Table B-3 will be computed by applying the following rates to the adjusted target costs established for each task order:

Available Award Fee	<u>6.0</u>	<u>%</u>
Available Incentive Fee	<u>1.5</u>	<u>%</u>

(2) Adjusted Target Cost

The adjusted target cost will equal the total estimated cost less direct materials and ODC for each Task Order issued. This computation will be accomplished by totaling all costs, including direct materials and other direct costs with their associated indirect costs, if any. Then, the direct material and other direct costs without their associated indirect cost will be subtracted from the total costs. The remainder will be the adjusted target cost and serve as the base for the application of the fee rates specified above. The adjusted target cost will serve only for computation of the available fees and cost performance evaluation. The adjusted Target Cost reflected in Table B-2 will be the total adjusted target estimated costs specified in task orders.

(3) Recording Available Fees and Target Cost

A record of the available fees and target costs will be tabulated by the Contracting Officer on a cumulative basis and be provided to the Contractor for verification promptly at the end of each GFY quarter. The Contractor will provide written concurrence with, or reasons for disagreement with the cumulative target costs and available fees within 5 working days of receipt. Upon receipt of the Contractor's confirmation, the Contracting Officer shall issue a unilateral modification updating the contract tables accordingly.

Table B-2					
Adjusted Target Cost & Award Fees					
Contract Year	Adjusted Target Cost*	Available Award Fee**	Earned Award Fee	Score	Rating
Base Period					
CY1 Award to 9/30/03					
CY2 10/01/03 - 9/30/04					
CY3 10/01/04 - 9/30/05					
CY4 10/01/05 - 9/30/06					
CY5 10/01/06 - 9/30/07					
Option 1					
CY6 10/01/07 - 9/30/08					
Option 2					
CY7 10/01/08 - 9/30/09					
Option 3					
CY8 10/01/09 - 9/30/10					
Option 4					
CY9 10/01/10 - 9/30/11					
Option 5					
CY10 10/01/11 - 9/30/12					
*Adjusted target cost equals the sum of the adjusted target costs for all task orders issued within each contract year.					
**AAF equals the sum of the AAF for all task orders issued within each contract year.					

Table B-3

Incentive Fee

Contract Period	Available Incentive Fee*	Completed WFO**	Incentive Fee Earned-to-Date***
Base Period			
03/01/03 to 9/30/07			
Option 1			
10/01/07 - 9/30/08			
Option 2			
10/01/08 - 9/30/09			
Option 3			
10/01/09 - 9/30/10			
Option 4			
10/01/10 - 9/30/11			
Option 5			
10/01/11 - 9/30/12			
Totals:			

* Equals sum of the contract period AIF for all task orders issued within each contract period. However, if unearned IF is carried over to a subsequent period, then the AIF will equal the value of the carried over IF plus the AIF for all task orders issued within that contract period.

** Equals sum of all WFO completed during the contract period.

*** Earned-to-Date means as of the contract modification reflected in the upper corner of this page.

(c) Determination of EAF

The amount of award fee earned by the contractor shall be determined in accordance with contract clause G.2 and Attachment J-3, Performance Surveillance and Award Fee Plan.

(d) Determination of EIF**(1) Computation of EIF**

The EIF during each contract period will be determined upon completion of each instance of Work for Others (WFO) or after a significant change in AIF, but no more frequently than monthly, using the following formula:

$$\text{EIF} = \text{AIF} \times \frac{\text{Cumulative actual value of completed WFO}}{\text{Target value of WFO}}$$

where,

AIF = cumulative incentive fee that becomes available within each contract period in accordance with Subsection (b), above, plus any unearned incentive fee carried over from a prior contract period.

Cumulative = sum of all the instances of WFO completed during a contract period.

Actual value = shall be based upon the final amount payable to the contractor by its customer after resolution of any adjustments.

Completed = when an instance of WFO has been finished, its final value agreed to by the contractor and its customer, and all costs and/or fees due the Government associated therewith, if any, have been reimbursed. As each instance of WFO is completed the contractor shall so notify the Contracting Officer in writing with such appropriate documentation as the Contracting Officer may require and, upon verification thereof, the Contracting Officer will modify Table B-3 accordingly. For EIF determination purposes an instance of WFO will be counted in the contract period in which it is completed.

Target value of WFO = total value of WFO anticipated in each contract period as follows:

Contract Period	Target Value of WFO
Award – 9/30/07	\$20,000,000
10/01/07 – 9/30/08	TBD*
10/01/08 – 9/30/09	TBD*
10/01/09 – 9/30/10	TBD*
10/01/10 – 9/30/11	TBD*
10/01/11 – 9/30/12	TBD*
TOTAL	TBD*

*At any time after contract award the Contracting Officer will request the contractor to propose target values in writing with detailed supporting rationale. It is anticipated that such request will not occur any earlier than approximately 32 months after contract start. The request may be for target values for one contract period or a combination of periods up to all five periods. Upon mutual agreement of the parties as to the appropriate values, the contract will be modified accordingly.

The maximum earnable incentive fee in each contract period shall not exceed the AIF specified in Contract Table B.3.

(2) Distribution of EIF

a EIF derived from WFO captured by academic team members will be allocated to replenish the Spaceport Research and Technology Fund.

b. EIF derived from WFO captured by non-academic team members will be distributed utilizing the methodology described below, which shall be assessed solely by the contractor. The intent of this approach is to promote a directed and aggressive marketing campaign necessary to encourage use of University and KSC resources, and supports capture of large programs when pursuing WFO.

Definitions – for the purposes of this clause the following definitions shall apply:

Vision Alignment = Work in the areas of Fluid Systems Technologies; Spaceport Structures and Materials; Process and Human Factors Engineering; Command, Control, and Monitoring Technologies; and Range Technologies.

Fluid System Technologies = Work in the areas of Storage and Distribution Technologies; Production, Recovery, and Disposal Technology; Vehicle Interface Technologies; Fluid Safety Tech.; ELV & RLV Thermal/Fluids Env. and Management.

Spaceport Structures and Materials = Work in the areas of Launch Structures and Mechanisms; Materials Science and Technologies; Corrosion Science and Technologies; Electromagnetic Physics; and Nondestructive Evaluation Technologies.

Process and Human Factors Engineering = Work in the areas of Modeling and Simulation; Process and Ops Analysis; Human Factors and Ergonomics; Task Analysis Technologies; Life Cycle Engineering; and Scheduling and Risk Assessment Technologies.

Command, Control, and Monitoring Technologies = Work in the areas of Advanced Control System Technologies; Chemical Detection; Field Inspection and Measurement; Advanced Data Processing and Distribution; Smart Sensors and Acquisition; Spaceport Systems Health Management; and High-Reliability S/W Development.

Range Technologies = Work in the areas of Weather Instrumentation; Surveillance Technologies; Tracking and Telemetry Technologies; Decision Modeling and Analysis; and Range Safety and Traffic Management.

Step 1. The EIF derived from each effort of WFO captured by non-academic team members will be divided into two pools:

Value of WFO effort	60% of the derived EIF
Vision Alignment	40% of the derived EIF

Step 2. Value of WFO Effort Pool

The percent of the WFO Effort Pool distributed to the non-academic team member who captured it will be a function of the value of the effort of WFO as follows:

<u>Value of Each WFO Effort</u>	<u>% of Pool</u>
\$ 0 -300,000	24
301-500,000	49
501-750,000	73
750,000 +	100

Step 3. Vision Alignment Pool

The percent of the Vision Alignment Pool distributed to the non-academic team member who captured it will be a function of the following criteria:

Evaluation Guidelines for Vision Alignment Pool			
Element	Criteria		
Use of KSC Labs and Resources	None 0%	Usage is Peripheral Requirement of Task 16%	Usage is Primary Requirement of Task 32%
Use of Academic Resources	None 0%	Academic Resources Augment Team 17%	Academia has Primary or Directional Responsibility 34%
Consistency with w/STC Priorities/ Vision	None 0%	Effort is Consistent w/an Aspect of KSC's vision 17%	Effort Advances KSC's Attainment of Vision 34%

Step 4. The portion of the above pools not distributed to the non-academic team members will be allocated to replenish the Spaceport Research and Technology Fund.

(3) Carryover of Unearned Incentive Fee (UIF)

The accumulated UIF for each contract period shall not carry over and be available in a subsequent contract period(s) unless the Government determines, at its sole discretion, that the contractor has been sufficiently successful in obtaining Work for Others and the Contracting Officer determines that a reasonable potential exists that, if carried over, the contractor will be able to earn the carried over incentive fee. The Contracting Officer shall determine if all or only a portion of each contract period's UIF shall carry over and be available in succeeding periods.

(e) Payment of Earned Fees

(1) Recording Earned Fees

The Government's determination of earned fees will be reflected in unilateral contract modifications issued by the Contracting Officer.

(2) Payment of Award Fee

The Government payment office will make payments for earned award fee (less any provisional payments) to the contractor based upon the unilateral modifications issued by the Contracting Officer (reference clause NFS 1852.216-76). The contractor does not need to bill for earned award fee.

(3) Payment of Earned Incentive Fee

The contractor may bill for EIF no more frequently than monthly in accordance with the procedure specified in Section G.3(d). Billings shall be for the unpaid difference between prior payments and the EIF reflected in the most recent contract modification. Billings shall note cumulative prior payments, the total EIF and the number of the contract modification documenting the EIF.

B.3 CONTRACT FUNDING (NFS 18-52.232-81) (JUN 1990)

(a) For purposes of payment of cost and fees in accordance with the Limitation of Funds clause, the total amounts allotted by the Government to this contract, and the period of performance through which it is estimated these funds will cover, are specified in Table B-4.

Table B-4						
Contract Mod#	CONTRACT FUNDING					Contract Value
	Estimated Cost	Award Fee	Incentive Fee	Total Cost & Fee	Adequate through date	
Contract Award						
Total Amount						

B.4 ORDER LIMITATIONS (FAR 52.216-19) (OCT 1995)

(a) Minimum order. When the Government requires supplies or services covered by this contract in an amount of less than \$2,500, the Government is not obligated to purchase, nor is the Contractor obligated to furnish, those supplies or services under the contract.

(b) Maximum order. The Contractor is not obligated to honor any order during the base period that would cause the annual order limitations established below to be exceeded. The period of time for the annual limitation values is based on the Government Fiscal Year (GFY).

<u>Contract Ordering Period</u>	<u>GFY</u>	<u>Annual Order Limitation</u>
Base Period 03/01/03 – 9/30/07	2003	\$25,000,000
	2004	40,000,000
	2005	45,000,000
	2006	50,000,000
	2007	60,000,000

(c) Notwithstanding paragraph (b) of this section, the Contractor shall honor any order exceeding the maximum annual order limitations in paragraph (b), unless that order (or orders) is returned to the ordering office within 10 working days after issuance, with written notice stating the Contractor's intent not to ship the item (s) or provide the services called for and the reasons.

B.5 OPTION TO EXTEND THE TERM OF THE CONTRACT

(a) This contract is renewable for the periods identified as options in clause F.5 entitled "Period of Performance and Effective Ordering Periods", at the option of the Government. The Government may unilaterally extend the term of this contract by written modification prior to the end of the contract period of performance; provided that the Government gives the Contractor a preliminary written notice of its intent to extend at least 60 days before the contract expires. The Government may exercise options singly or in combinations of up to three option periods concurrently. The preliminary notice required by this clause does not commit the Government to an extension.

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

(c) The total duration of this contract, including the exercise of any options under this clause, shall not exceed nine years and seven months.

(d) In addition to any other regulatory requirements regarding the exercise of options, the Government will conduct at the completion of Contract Year 3 a comprehensive review of the Contractor's performance in the contract areas of University Participation and Work for Others prior to exercising any options to this contract. The Contractor's

ability to achieve contract goals/metrics established for these areas, along with a review of the Contractor's overall performance, will be a key determinant in the Government's decision to exercise any contract option.

B.6 TASK ORDER PRICING

Task Orders will be issued in accordance with NFS clause 1852.216-80, Task Ordering Procedure (OCT 1996). The Contractor agrees to use the direct labor and indirect rates established in contract attachment J-5, Task Order Pricing Rate Schedule, as the basis for establishing the estimated cost of individual orders, together with any other costs specific to the order.

B.7 SPECIAL COST PROVISIONS (KSC 52.231-90) (DEC 2000) (MODIFIED)

Pursuant to the terms of the contract FAR clause 52.216-7 entitled "Allowable Cost and Payment", the contractor shall be reimbursed for such actual and allowable expenditures incurred in the performance of work required by this contract as may be approved by the Contracting Officer, subject to the following limitations and provisions:

(a) TRAVEL

Pursuant to Title 11, Section 21 of the Federal Civilian Employee and Contractor Travel Expense Act of 1985 (PL 99-234), reimbursement for travel shall be in accordance with the provisions of FAR 31.205-46. Travel required in performance of work under this contract shall be in accordance with the Contractor's approved travel policy.

(b) PROVISIONAL INDIRECT BILLING RATES

Provisional billing rates for indirect cost pools shall be set at the discretion of the Contracting Officer based upon proposals from the contractor and following review by Government auditors. These provisional rates shall be specified in writing and may be revised either retroactively or prospectively by the Contracting Officer. Prior to each Contractor fiscal year, the Contractor shall submit a proposal for the coming year's provisional billing rates. If during the course of any particular year a significant disparity should arise between the approved provisional billing rates and the actual rates, the Contractor shall submit a proposal requesting consideration for revision of the provisional rates to ones more closely reflective of the actual rates anticipated for the year. After expiration of each of its fiscal years the Contractor shall adjust its billings to the estimated actual rates.

(c) RELOCATION COSTS

Reimbursement for relocation costs shall be in accordance with the provisions of FAR 31.205-35. No relocation costs will be reimbursable under this contract for employees whose residence at the time of hiring or assignment to this contract was within a fifty (50) mile radius of Kennedy Space Center, Florida. In no event shall the average reimbursement for relocation costs exceed the following ceiling:

PERIOD GFY	CEILING COST (Per Relocation)
2003	\$20,000
2004	\$20,000
2005	\$20,000
2006	\$20,000
2007	\$20,000
2008	\$20,000
2009	\$20,000
2010	\$20,000
2011	\$20,000
2012	\$20,000

NOTE: The contractor shall not be entitled to reimbursement under this contract for cost of relocating employees to their "home" site or any other gaining contractor activity.

(d) HOUSEHOLD GOODS SHIPMENTS

1. Movement of household goods and personal effects of contractor employees, when the total transportation costs are to be reimbursed by the government, shall be made by carriers furnishing reduced rates under 49 U.S.C. § 107.21, when such rates are available. The Transportation Office, TA-E1, Kennedy Space Center, Florida, telephone number (321) 867-4105, will provide the contractor with applicable instructions for household goods movement and such other support or guidance that is requested.
2. The contractor shall furnish the Chief, Propellants, Logistics, and Services Branch, TA-E1, Kennedy Space Center, Florida, with advanced information of any planned mass movement of personnel (10 or more families) thirty (30) or more days prior to the start of any major relocations in order to provide the government with sufficient time for rate negotiation action.
3. Carriers bill of lading and related shipping documents will be annotated with the following statement:
 "All transportation and services hereunder are for the National Aeronautics and Space Administration and the actual total transportation, accessorial and valuation charges paid to the carrier by the consignor or consignee are to be reimbursed by the U. S. Government, pursuant to the cost reimbursable Contract No. NAS10-02007. This may be confirmed by contacting such agency at (321) 867-2860. The undersigned, party to the above contract, is aware that a false statement submitted to the carrier for the purpose of receiving such reduced rates is a criminal offense under the Interstate Commerce Act.

Name of Company

BY: _____
(Company Official - Title)

4. Copies of all carriers' bills of lading will be available for review by the government on movements of household goods and personal effects that are the result of the relocation of the contractor employees when the total transportation costs are to be reimbursed by the government. Requests for deviations from the procedures established by this clause should be in writing and addressed to the Contracting Officer. Such requests must be made prior to the proposed move and in sufficient time for the Contracting Officer to make a decision.
5. Failure to comply with the provisions of this clause may result in the disallowance of costs, which are in excess of those that would have resulted from utilization of reduced rates obtainable under the provisions of this clause.

(e) SEVERANCE PAY

Reimbursement for severance pay shall be in accordance with the provisions of FAR 31.205-6(g). However, in no event shall the government reimburse the contractor for the cost of severance pay for any individual contractor employee who voluntarily elects to work for a succeeding contractor. This provision shall apply to any contract extension hereof.

(f) PENSION PROGRAM REQUIREMENTS

Pursuant to NFS 1852.237-71, Pension Portability, included in full text in Section H of this contract, a clear description of the portable pension plan, including service, pay, liabilities, vesting, termination, and benefits from prior contracts will be inserted in this contract after award as a separate attachment in Section J.

(g) FRINGE BENEFITS

The contractor shall inform the contracting officer of all proposed changes in fringe benefits which may result in an increased cost to the contract as soon as practicable, but in any event, prior to such changes being implemented. Fringe benefits include, but are not limited to, such items as health insurance, life insurance, pension plans, retiree health care, savings plans, bonus plans, education assistance, and leave policies. Failure to comply with the terms of this clause may result in the disallowance of costs.

(h) TRANSFER OF ACCRUED BENEFITS

The contractor will accept transfer of accrued sick leave hours and recognize the sick leave and vacation leave accrual rates of incumbent personnel hired from the predecessor contract NAS10-98001, provided the employee had no break in service from the predecessor contract exceeding 60 days. The costs of the transferred sick leave hours will not be paid under this contract unless and until they are used.

(i) ASRC TEAM INVESTMENT

The Contractor shall provide the features and accomplish the various actions described in clause H.21 entitled "ASRC Team Investment Profile," non-reimbursable items, at the values identified at no cost to the Government. If actions should change during performance of the milestones, the Contractor shall submit the proposed revision and provide supporting rationale to the Contracting Officer. If the proposed revision is approved by the Contracting Officer, a contract modification will be issued accordingly. In no event will the Contractor be allowed to recover costs and their allocable share of applicable indirect costs identified for the period stated in the milestone schedules for each of the actions. The Contractor agrees that these costs will not be invoiced to this or any other Government contract. The contractor shall include a status report for each non-reimbursable commitment, as specified in clause H.21, ASRC Team Investment Profile, within DRD 003, Internal Surveillance Report.

(j) TREATMENT OF TECHNOLOGY OUTREACH PROGRAM COSTS

1. Notwithstanding the terms of the contract clause entitled "Allowable Cost and Payment," the contractor shall not be reimbursed for Technology Outreach Program (TOP) costs under this or any other Government contract in excess of the amounts specified herein.
2. It is understood by the parties that TOP costs will be a component of this divisional G&A and that the allocation base for G&A costs will be the work performed under this contract plus all Work for Others (WFO).
3. The contractor agrees that the first \$850,000 of TOP costs allocated to this contract shall be paid by the contractor and not charged to this or any other Government contract.

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4. In no event shall the Government pay more than the following ceiling amounts for its allocable share of TOP costs for the respective periods indicated:

i. GFY03	\$	<u>0</u>
ii. GFY04	\$	<u>255,013</u>
iii. GFY05	\$	<u>712,789</u>
iv. GFY06	\$	<u>760,290</u>
v. GFY07	\$	<u>816,052</u>
vi. GFY08	\$	<u>873,688</u>
vii. GFY09	\$	<u>909,841</u>
viii. GFY10	\$	<u>943,739</u>
ix. GFY11	\$	<u>1,001,760</u>
x. GFY12	\$	<u>1,080,624</u>

5. Regardless of what costs are billed to the Government the contractor agrees to report to the Government the total actual TOP costs in such form and detail as may be specified by the Contracting Officer or elsewhere in this contract as part of financial or other reports.
6. The contractor shall not make any change to its allocation theory (computation) associated with any accounts affecting this provision without prior notification to the contracting officer and until an equitable adjustment to this provision and other effected special cost provisions, if any, is agreed to by the parties.
7. Upon written petition from the contractor the Contracting Officer may, upon her/his sole discretion, determine to allow costs in excess of the ceiling amounts specified above. Requests to exceed the ceiling amounts specified above shall include detailed rationale explaining why it is in the Government's best interests to allow the additional costs and provide cost data supporting the establishment of revised ceiling amounts.

(k) GENERAL & ADMINISTRATIVE COST CEILING

Notwithstanding the terms of the contract clause entitled "Allowable Cost and Payment," the contractor shall not be reimbursed for the USTDC G&A costs under this or any other Government contract in excess of the following ceilings:

<u>For the Contractor's Fiscal Year Ending</u>	<u>G&A Rate</u>	<u>Base</u>
CFY 03		Direct Labor,
CFY 04		Overhead,
CFY 05		Subcontractors, and
CFY 06		Other Direct Cost
CFY 07		
CFY 08		
CFY 09		
CFY 10		

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CFY 11	[REDACTED]	
CFY 12	[REDACTED]	

The contractor shall not make any change to its allocation theory (computation) associated with any accounts affecting this provision without prior notification to the contracting officer and until an equitable adjustment to this provision and other effected special cost provisions, if any, is agreed to by the parties.

(I) TREATMENT OF COSTS FOR THE OPERATION OF THE SPACEPORT RESEARCH & TECHNOLOGY INSTITUTE (SRTI)

Notwithstanding the terms of the contract clause entitled "Allowable Cost and Payment," the contractor shall not be reimbursed for any of the costs for operation of the SRTI under this or any other Government contract. Examples of such cost would include the direct and indirect costs of personnel employed by the SRTI, their travel costs, costs of housing these personnel, and other direct and indirect costs associated with SRTI activities, including the conduct of or attendance at workshops and symposiums. This prohibition shall not apply to allowable and reasonable costs of activities of the SRTI and or its personnel allocable to the specific performance of work chargeable to task orders issued under the USTDC contract.

[END OF SECTION]

SECTION C - DESCRIPTION/SPECIFICATION/WORK STATEMENT**C.1 SCOPE OF WORK (KSC 52.210-90) (FEB 1990)**

The Contractor shall provide personnel, materials, and facilities (except as otherwise provided for in this contract) necessary to perform those functions set forth in Attachment J-1, entitled "Performance Work Statement for the University-affiliated Spaceport Technology Development Contract (USTDC), dated March 1, 2003, and included in Section J.

[END OF SECTION]

SECTION D - PACKAGING AND MARKING**D.1 MARKING INSTRUCTIONS - CONTRACTOR ACQUIRED EQUIPMENT
(KSC 52.247-94) (NOV 2000)**

Inbound shipments to the contractor of contractor acquired equipment and parts from all sources for the account of the Government shall be consigned to and marked as follows:

Transportation Officer, NASA
J-BOSC Warehouse, Building M6-744
Kennedy Space Center, Florida 32899

Mark for: _____ TBD _____ *

*Contractor to insert the name, code and address of the consignee and, if appropriate, identifying contract or order number.

NOTE: (On shipments of explosives, propellants, dangerous and potentially hazardous items via motor carrier, the contractor shall require the carrier to call KSC Transportation Office, TA- E1, phone 321-867-2975, immediately prior to arrival, in order to receive instructions as to the exact unloading point within the Kennedy Space Center.)

[END OF SECTION]

SECTION E - INSPECTION AND ACCEPTANCE

E.1 LISTING OF CLAUSES INCORPORATED BY REFERENCE

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

I. FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1)

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

E.2 MATERIAL INSPECTION AND RECEIVING REPORT (NFS 1852.246-72) (JUN 1995)

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

(b) The Contractor shall prepare the DD Form 250 in accordance with NASA FAR Supplement 1846.672-1. The Contractor shall enclose the copies of the DD Form 250 in the package or seal them in a waterproof envelope, which shall be securely attached to the exterior of the package in the most protected location.

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

E.3 SUBMISSION OF MATERIAL INSPECTION AND RECEIVING REPORTS

Material Inspection and Receiving Reports (DD Form 250) may be required for equipment and hardware deliveries and system turnover to the Government. Individual Task Order requirements will specify when submittal of a DD 250 is required.

[END OF SECTION]

SECTION F - DELIVERIES OR PERFORMANCE

F.1 LISTING OF CLAUSES INCORPORATED BY REFERENCE

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

I. FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1)

CLAUSE NUMBER	DATE	TITLE
52.211-15	SEP 1990	DEFENSE PRIORITY AND ALLOCATION REQUIREMENTS
52.242-15	AUG 1989	STOP-WORK ORDER (ALTERNATE I) (APR 1984)

F.2 DELIVERY INSTRUCTIONS (KSC 52.212-91) (FEB 1991)

Deliveries must be made to the receiving activity located in Building M6-744, J-BOSC Warehouse, John F. Kennedy Space Center, Florida. Unless the Contracting Officer has authorized deliveries to be made at other times because of an emergency requirement, vendor deliveries will be accepted only during normal operating hours which are from 07:20 a.m. to 03:30 p.m. daily excepting Saturdays, Sundays and legal holidays.

F.3 PLACE OF PERFORMANCE (KSC 52.212-92) (FEB 1990)

The place of performance shall be the John F. Kennedy Space Center (KSC), Cape Canaveral Air Force Station (CCAFS), Florida; and at such other locations as may be approved in writing by the Contracting Officer.

F.4 FREIGHT SHIPMENTS (KSC 52.247-99) (NOV 2000)

Reduced transportation rates accorded the Government under Section 22 of the Interstate Commerce Act are properly applicable to Commercial Bills of Lading covering international shipments of property moving under cost reimbursement type Government contracts when the contract provides for direct reimbursement by the Government of all transportation costs and such costs are allowable.

The following is applicable to freight shipments of 20,000 pounds or more by surface transportation or 5,000 pounds or more by air movement when the transportation costs are directly reimbursable by the Government and such costs are allowable:

a. When the Contracting Officer has authorized the Contractor to utilize Commercial Bills of Lading with application of Section 22 rates for freight shipments instead of shipment on Government Bills of Lading and/or conversion of Commercial Bills of Lading to Government Bills of Lading, the contractor will inform the KSC Transportation Office, TA-E1, Kennedy Space Center, Florida, telephone number 321-867-2975, of each planned movement. That office will furnish the contractor with pertinent information including name of carriers (by origin) providing service under Section 22 rates, citation of applicable tariff and such other support or guidance that is requested.

b. The original and all copies of the Carrier's Bills of Lading will be annotated with the following statement: "Transportation hereunder is for the Government and the actual total transportation charges paid to the carrier(s) are to be reimbursed by the Government."

c. One (1) copy of all Carrier's Bills of Lading for freight shipments will be furnished the KSC Transportation Office, TA-E1, Kennedy Space Center, Florida when total transportation costs are to be reimbursed by the Government.

F.5 PERIOD OF PERFORMANCE AND EFFECTIVE ORDERING PERIODS

The basic period of performance and effective ordering period of this contract shall begin on the effective date of the contract and continue through September 30, 2007. Pursuant to the Article B.5, Option to Extend the Term of the Contract, the following options are established:

<u>Option</u>	<u>Period of Performance</u>
Option 1	October 01, 2007 – September 30, 2008
Option 2	October 01, 2008 – September 30, 2009
Option 3	October 01, 2009 – September 30, 2010
Option 4	October 01, 2010 – September 30, 2011
Option 5	October 01, 2011 – September 30, 2012

[END OF SECTION]

SECTION G - CONTRACT ADMINISTRATION DATA**G.1 LISTING OF CLAUSES INCORPORATED BY REFERENCE**

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

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

CLAUSE NUMBER	DATE	TITLE
1852.223-71	DEC 1988	FREQUENCY AUTHORIZATION
1852.227-11		PATENT RIGHTS--RETENTION BY THE CONTRACTOR (SHORT FORM)
1852.242-71	DEC 1988	TRAVEL OUTSIDE OF THE UNITED STATES
1852.242-73	JUL 2000	NASA CONTRACTOR FINANCIAL MANAGEMENT REPORTING

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

- (a) The contractor can earn award fee from a minimum of zero dollars to the amount of available award fee stated in clause B.2(a), Contract Value, Award Fee, and Incentive Fee.
- (b) The initial performance evaluation period will be from the effective date of the contract to September 30, 2003. Thereafter, the Government shall evaluate the Contractor's performance every 12 months to determine the amount of award fee earned by the contractor during the period. The Contractor may submit a self-evaluation of performance for each evaluation period under consideration. These self-evaluations will be considered by the Government in its evaluation. The Government's Fee Determination Official (FDO) will determine the award fee amounts based on the Contractor's performance in accordance with Attachment J-3, Performance Surveillance and Award Fee Plan. The plan may be revised unilaterally by the Government prior to the beginning of any rating period to redirect emphasis.
- (c) The Government will advise the Contractor in writing of the evaluation results. The Accounts Payable Section, Code GG-B-C2, will make payment based on issuance of a unilateral modification by contracting officer.
- (d) After 85 percent of the potential award fee has been paid, the Contracting Officer may direct the withholding of further payment of award fee until a reserve is set aside in an amount that the Contracting Officer considers necessary to protect the Government's interest. This reserve shall not exceed 15 percent of the total potential award fee.

(e) The amount of award fee which can be awarded in each evaluation period is limited to the amounts set forth at Article B.2, Table B-1. Award fee which is not earned in an evaluation period cannot be reallocated to future evaluation periods.

(f)(1) Provisional award fee payments will be made under this contract pending the determination of the amount of fee earned for an evaluation period. If applicable, provisional award fee payments will be made to the Contractor on a monthly basis. The total amount of award fee available in an evaluation period that will be provisionally paid is the lesser of 80% or the prior period's evaluation score.

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

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

(4) Provisional award fee payments will not be made prior to the first award fee determination by the Government.

(g) Award fee determinations are unilateral decisions made solely at the discretion of the Government.

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

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

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

John F. Kennedy Space Center, NASA
General Accounting/Accounts Payable Office
GG-B-C2
Kennedy Space Center, FL 32899

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

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

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

(1) One original Standard Form (SF) 1034, SF 1035, or equivalent Contractor's attachment to the cognizant DCAA office

DCAA-Columbia Branch Office Baltimore
10025 Governor Warfield Parkway
One Mall North, Suite 2000
Columbia, MD 21044

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

(i) Copy 1 - NASA Contracting Officer

(ii) Copy 2 - DCAA Auditor

(iii) Copy 3 - Contractor

(iv) Copy 4 - Contract Administration Office, if delegated

(v) Copy 5 - Project management office

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

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

John F. Kennedy Space Center, FL
Attn: Contracting Officer
Mail Code OP-OS
Kennedy Space Center, FL 32899

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

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

G.4 DESIGNATION OF NEW TECHNOLOGY REPRESENTATIVE AND PATENT REPRESENTATIVE (NFS 1852.227-72) (JULY 1997)

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

Title	Office Code	Address
New Technology Representative	YA-C1	John F. Kennedy Space Center, NASA Attn: David Makufka Technology Transfer Officer YA-C1 Kennedy Space Center, FL 32899
Patent Representative	CC-A	John F. Kennedy Space Center, NASA Attn: Randall Heald Patent Counsel CC-A Kennedy Space Center, FL 32899

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

G.5 INSTALLATION-ACCOUNTABLE GOVERNMENT PROPERTY (NFS 1852.245-71) (JUNE 1998)

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

The Contractor shall assume the responsibilities as custodian / user as defined in the current edition of NPG 4200.1, NASA Equipment Management Manual and NPG 4200.2, Equipment Management Manual for Property Custodians.

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

(b)(1) The official accountable recordkeeping, physical inventory, financial control, and reporting of the property subject to this clause shall be retained by the Government and accomplished by the installation Supply and Equipment Management Officer (SEMO)

and Financial Management Officer. If this contract provides for the contractor to acquire property, title to which will vest in the Government, the following additional procedures apply:

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

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

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

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

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

G.6 LIST OF INSTALLATION-PROVIDED PROPERTY AND SERVICES (NFS 1852.245-77) (JULY 1997)(MODIFIED)

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

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

(b) Non-controlled general- and special-purpose equipment, including office furniture.

- (1) Equipment to be made available is listed in Section J, Attachment J-2. The Government retains accountability for this property under the clause at 1852.245-71, Installation-Accountable Government Property, regardless of its authorized location.
- (2) The Contractor shall not bring to the installation for use under this contract any property owned or leased by the Contractor, or other property that the Contractor is accountable for under any other Government contract, without the Contracting Officer's prior written approval.
- (c) Publications and blank forms stocked by the installation.
- (d) Safety and fire protection for Contractor personnel and facilities.
- (e) Medical treatment of a first-aid nature for Contractor personnel injuries or illnesses sustained during on-site duty.
- (f) Cafeteria privileges for Contractor employees during normal operating hours.
- (g) Building maintenance for facilities occupied by Contractor personnel.
- (h) 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.
- (i) Supply support and services as specified in KHB 4000.1, entitled "Supply Support System Manual"
- (j) Administrative Desktop Computer Seats - Administrative Desktop Computer Services are limited to that subset of generic office type computers including equipment physically connected to those computers such as personal printers, personal scanners, commercial digital cameras, and barcode readers. The Offeror shall utilize the Outsourcing Desktop Initiative for NASA (ODIN) contract as a means of acquiring administrative desktop computing services. Additional information regarding the ODIN Master Contract and KSC ODIN Delivery Order can be found at the following web-sites: <http://www.odin.nasa.gov/> and <http://osfodin.ksc.nasa.gov/KSCInitialDO2.html>.
- (k) Mail services (to one USTDC designated location)
- (l) Printing/Micro-imaging at Central KSC Print Shop.
- (m) On-site Film Laboratory and processing service.

In the event that the Government is unable to provide the items specified in paragraphs a through m above, or in the event the items are not available in a timely manner through Government resources, such items as are required in the performance of this contract may be procured by the Contractor with the prior written approval of the Contracting Officer.

The Contractor agrees to make every reasonable effort to anticipate and make known to the Government what its requirements are sufficiently in advance to permit the Government to fulfill them in a timely manner in order to minimize Contractor procurement.

Items generally considered "Fixtures" (e.g., becomes a part of the premises when installed, such as water coolers, air-conditioners, partitions) shall not be purchased by the Contractor under the authority of this clause. Additionally, items of a capital nature shall not be purchased under the authority of this clause without the prior written approval of the Contracting Officer.

[END OF SECTION]

SECTION H - SPECIAL CONTRACT REQUIREMENTS**H.1 LISTING OF CLAUSES INCORPORATED BY REFERENCE**

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

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

CLAUSE NUMBER	DATE	TITLE
1852.204-74	MAY 2002	CENTRAL CONTRACTOR REGISTRATION
1852.223-70	APR 2002	SAFETY AND HEALTH
1852.223-74	MAR 1996	DRUG- AND ALCOHOL-FREE WORKFORCE
1852.223-75	FEB 2002	MAJOR BREACH OF SAFETY OR SECURITY
1852.225-70	FEB 2000	EXPORT LICENSES
		Insert in Paragraph (b): Kennedy Space Center and Cape Canaveral Air Force Station, FL
1852.228-72	SEP 1993	CROSS-WAIVER OF LIABILITY FOR SPACE SHUTTLE SERVICES
1852.228-76	DEC 1994	CROSS-WAIVER OF LIABILITY FOR SPACE STATION ACTIVITIES
1852.228-78	SEP 1993	CROSS-WAIVER OF LIABILITY FOR NASA EXPENDABLE LAUNCH VEHICLE (ELV) LAUNCHES
1852.242-72	AUG 1992	OBSERVANCE OF LEGAL HOLIDAYS (ALTERNATE II) (OCT 2000)
1852.246-70	MAR 1997	MISSION CRITICAL SPACE SYSTEMS PERSONNEL RELIABILITY PROGRAM

H.2 SPECIAL 8(a) CONTRACT CONDITIONS (FAR 52.219-11) (FEB 1990) (DEVIATION)

(a) This contract is issued as a direct award between the contracting activity and the 8(a) contractor pursuant to a Memorandum of Understanding between the Small Business Administration (SBA) and the National Aeronautics and Space Administration. Accordingly, the SBA is not a party to this contract. SBA does retain responsibility for 8(a) certification, 8(a) eligibility determinations and related issues, and providing counseling and assistance to the 8(a) contractor under the 8(a) program. The cognizant SBA district office is:

U.S. Small Business Administration
Alaska District Office
222 W. Eighth Avenue #67
Anchorage, AK 99513-7559

(b) The contracting activity is responsible for administering the contract and taking any action on behalf of the Government under the terms and conditions of the contract; provided, however, that the contracting activity shall give advance notice to the SBA before it issues a final notice terminating performance, either in whole or in part, under the contract. The contracting activity shall also coordinate with the SBA prior to processing any novation agreement. The contracting activity may assign contract administration functions to a contract administration office.

(c) The contractor agrees:

(1) to notify the Contracting Officer, simultaneous with its notification to SBA (as required by SBA's 8(a) regulations), when the owner or owners upon whom 8(a) eligibility is based plan to relinquish ownership or control of the concern. Consistent with Section 407 of Public Law 100-656, transfer of ownership or control shall result in termination of the contract for convenience, unless SBA waives the requirement for termination prior to the actual relinquishing of ownership and control.

(2) it will not subcontract the performance of any of the requirements of this contract without the prior written approval of the SBA and the Contracting Officer.

H.3 LIMITATION OF FUTURE CONTRACTING (NASA 1852.209-71) (DEC1988)

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

(b) The nature of this conflict is a possible unfair competitive advantage.

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

(1) If the Contractor, under the terms of this contract, or through the performance of tasks pursuant to this contract, is required to develop specifications or statements of work 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) If the Contractor, through the performance of tasks pursuant to this contract, is required to perform evaluations of Small Business Innovative Research and Small Business Technology Transfer (SBIR/STTR) proposals, the Contractor shall be prohibited from evaluating proposals in any subtopic area in which the Contractor has also submitted proposals or those of a competitor without proper safeguards to ensure objectivity to protect the government's interest.

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

H.4 MINIMUM INSURANCE COVERAGE (NASA 1852.228-75) (OCT 1988)

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

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

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

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

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

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

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

H.5 KEY PERSONNEL AND FACILITIES (NASA 1852.235-71) (MAR 1989)

(a) The personnel and/or facilities listed below (or specified in the contract Schedule) are considered essential to the work being performed under this contract. Before removing, replacing, or diverting any of the listed or specified personnel or facilities, the

Contractor shall (1) notify the Contracting Officer reasonably in advance and (2) submit justification (including proposed substitutions) in sufficient detail to permit evaluation of the impact on this contract.

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

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

Richard Kniseley, Program Manager
John Horan, Deputy Program Manager
Dr. Andrew Srokowski, Director, Engineering Services
Scott Study, Director, Technology Outreach
Peggy Evanich, Director, Spaceport Research and Technology Institute
Jarl Gustafson, Director, SH&MA

H.6 PENSION PORTABILITY (NASA 1852.237-71)(JAN 1997)

(a) In order for pension costs attributable to employees assigned to this contract to be allowable costs under this contract, the plans covering such employees must:

- (1) Comply with all applicable Government laws and regulations;
- (2) Be a defined contribution plan, or a multiparty defined benefit plan operated under a collective bargaining agreement. In either case, the plan must be portable, i.e., the plan follows the employee, not the employer;
- (3) Provide for 100 percent employee vesting at the earlier of one year of continuous employee service or contract termination; and
- (4) Not be modified, terminated, or a new plan adopted without the prior written approval of the cognizant NASA Contracting Officer.

(b) The Contractor shall include paragraph (a) of this clause in subcontracts for continuing services under a service contract if:

- (1) The prime contract requires pension portability;
- (2) The subcontracted labor dollars (excluding any burdens or profit/fee) exceed \$2,500,000 and ten percent of the total prime contract labor dollars (excluding any burdens or profit/fee); and
- (3) Either of the following conditions exists:

(i) There is a continuing need for the same or similar subcontract services for a minimum of five years (inclusive of options), and if the subcontractor changes, a high percentage of the predecessor subcontractor's employees are expected to remain with the program; or

(ii) The employees under a predecessor subcontract were covered by a portable pension plan, a follow-on subcontract or a subcontract consolidating existing services is awarded, and the total subcontract period covered by the plan covers a minimum of five years (including both the predecessor and successor subcontracts).

H.7 SECURITY CONTROLS AT KSC (KSC 52.204-90) (NOV 2000)

A. Identification of Employees

1. The contractor shall require each employee engaged on the work site to display NASA-furnished identification badges and special access badges at all times. The contractor shall obtain and submit badging request forms for each person employed or to be employed by the contractor under this contract. The contractor shall designate its own security and badging officials to act as points-of-contact for the KSC Security Office. Prior to proceeding with onsite performance, the contractor shall submit the following information to the Protective Services Branch, Code TA-E2, Kennedy Space Center:

- a. Contract number and location of work site(s)
- b. Contract commencement and completion dates
- c. Status as prime or subcontractor
- d. Names of designated security and badging officials

2. Identification and badging of employees shall be accomplished as soon as practicable after award of the contract. During performance of the contract, the contractor shall, upon termination of an employee, immediately deliver badges and/or passes issued to the employee to the NASA Security Office. It is agreed and understood that all NASA identification badges/passes remain the property of NASA, and the Government reserves the right to invalidate such badges/passes at any time.

B. Access to Controlled Areas within KSC

1. Certain areas within KSC have been designated as Controlled Areas. These are normally surrounded by fencing and have an entrance gate monitored by a guard or monitoring device. Access into such areas is classified into "escorted" or "unescorted" access. For each employee for which the contractor desires to have unescorted access, the prescribed forms must be submitted to the NASA Security Office. Due to the time required to process requests for unescorted access, the contractor is advised to complete and submit the required forms as soon as practicable after contract award. Within 14 working days after the receipt of the forms, the NASA Security Office will determine whether the person is eligible for unescorted access.

2. The prime contractor is responsible for providing escort services for any of his employees and/or any subcontractor employees who are not eligible for unescorted access.
3. All requests for unescorted access by subcontractors will be submitted through the prime contractor for forwarding to the NASA Security Office.

H.8 MOTOR VEHICLE MANAGEMENT (KSC 52.208-90) (APR 2001)

The contractor shall acquire and manage motor vehicles necessary to support the performance of the contract. Such needed vehicles are to be acquired and managed in the manner most efficient and economic to the Government. Vehicles may be obtained from the GSA Interagency Motor Pool, commercial sources, or other sources. Costs related to motor vehicles shall be borne by the contractor and reimbursed by the Government to the extent allowable in accordance with the terms of the contract relating to the reimbursement of costs.

The contractor will use KSC Form 7-490 (KSC Vehicle Use Record) to record vehicle utilization for all GSA and commercial rental vehicles. These records will be maintained and made available at the request of the Contracting Officer for a period of 18 months. Two copies of the monthly billings, both GSA and commercial, for motor vehicle services will be forwarded to the Contracting Officer each month with a copy to the KSC Transportation Office, Code TA-E1. The contractor shall assure that all vehicle operators are appropriately licensed in the state. The contractor will furnish GSA a copy of their third party automobile insurance policy if acquiring GSA motor vehicles.

The contractor shall prepare and submit a Motor Vehicle Utilization Plan (DRD013) semiannually. One copy of the form shall be forwarded to the Contracting Officer, with a copy to KSC Transportation Office, Code TA-E1. This plan shall, as a minimum, demonstrate the economic and efficient management of vehicles and fuel. It shall forecast the vehicle requirements for 2 years allowing at least 6 months advance notice for additional requirements. It shall demonstrate the techniques utilized by the contractor to assure that vehicles are used for official purposes only.

H.9 EMERGENCY MEDICAL TREATMENT (KSC 52.223-105) (JUL 2000)

The contractor shall immediately call (see below for applicable telephone numbers) for assistance with personnel injury or illness for any incident requiring emergency medical treatment for contractor or subcontractor personnel, or invitees on KSC, or if any person on the job site is rendered unconscious. The contractor shall require the victim to sign an appropriate "refusal of treatment" form, if medical evaluation/treatment is offered and refused.

From KSC or CCAFS property: 911
From a KSC issued cellular telephone: 867-7911
From other than a KSC issued cellular telephone: 321-867-7911
Commercial telephone users on KSC or CCAFS property: 911

H.10 RADIATION PROTECTION (KSC 52.223-90) (OCT 1998)

A. The Contractor agrees to comply with the requirements of:

(1) KHB 1860.1, KSC Ionizing Radiation Protection Program, KHB 1860.2, KSC Nonionizing Radiation Protection Program, and applicable Federal and State regulations for activities performed at the Kennedy Space Center, NASA facilities at Cape Canaveral Air Station and Vandenburg Air Force Station; and

(2) 45th Space Wing Instruction 40-201, Radiation Protection Program, in addition to those in (1) above for activities performed at the Cape Canaveral Air Station or Eastern Test Range.

B. The Contractor further agrees to submit data and information regarding compliance with (1) and (2) above in addition to the names of laboratories to perform activities, for the Contracting Officer's approval, within thirty days after award of contract.

H.11 OCCUPATIONAL HEALTH (KSC 52.223-93) (NOV 2000)

1. Occupational Health Services

The medical services set forth in KMI 1810.1 entitled KSC Occupational Medicine Program, will be provided to the contractor by the Government to the extent that there will not be any restriction of the employees' rights under applicable Workmen's Compensation statutory provisions.

Information from records generated as a result of rendition of these medical services may be obtained from the Chief, Aerospace Medicine and Occupational Health Branch, Code TA-C2, upon written request.

2. Health Examinations and Physical Requirements Standards

The contractor shall provide the following data to the Chief, Aerospace Medicine and Occupational Health Branch, Code TA-C2:

a. A breakdown of the various health examinations required in support of this contract; providing type, frequency, and a roster of personnel affected.

b. The applicable physical requirements standards for personnel certification, if the contractor has physical requirements standards which are stricter than the applicable KSC (Federal) standards; otherwise the KSC (Federal) physical requirements standards are applicable to this contract.

H.12 HAZARD COMMUNICATION (KSC 52.223-94) (AUG 2002)

A. In order to comply with Federal, OSHA, and State Regulations, the Contractor shall participate in the KSC Hazard Communication Program as implemented by KNPD 1800.2, Hazard Communication Program.

B. The Contractor shall coordinate submission of hazardous material safety data, to the NASA/KSC Materials Safety Data Sheet Archive, with the Joint Base Operations Support Contract MSDS Program Administrator.

H.13 CONDUCT OF FACILITY PROJECTS (KSC 52.236-130) (APR 2000)

A. Approval

The contractor shall not award or otherwise proceed with implementation of any facility project without a NASA approved Facility Project - Brief Project Document (NASA Form 1509). The contractor shall prepare or otherwise support the preparation of NASA Form 1509's in accordance with the current edition of NPG 8820.2, Facility Project Implementation Handbook, and the current version of the KSC procedure for Facility Project Approval and Implementation. For purposes of this requirement a Facility Project is defined as any new construction, repair, and /or modification affecting Government real property located on KSC regardless of the source of funding, or located elsewhere and funded by KSC, and costing more than \$50,000. Planning and design activities leading to the implementation of the actual construction, repair or modification work normally can be accomplished prior to 1509 approval. When in doubt, guidance as to whether or not a particular activity is a Facility Project, is "implementation" versus "planning and design," and / or the applicability of this requirement in relation to specific projects should be obtained from the KSC Spaceport Services Management Integration Office.

B. File Documentation

Construction subcontract file documentation shall include a copy of the approved NASA Form 1509 authorizing the project. For construction subcontracts requiring Contracting Officer consent, the consent file shall include a copy of the approved NASA Form 1509 authorizing the project.

H.14 CONTROLS APPLICABLE TO CONTRACTOR'S ACTIVITIES (KSC 52.242-90) (AUG 2002)

The below listed Kennedy Space Center publications and subsequent revisions thereof are applicable to this contract and are incorporated herein by reference. These publications prescribe regulatory procedural criteria, which are applicable to the contractor. The contractor, upon receipt of notice of noncompliance with any provisions of the below listed publications from the Contracting Officer or his representatives, shall promptly take corrective action.

JHB 2000, Consolidated Comprehensive Emergency Management Plan

KHB 1200.1, "Facilities, Systems & Equipment Management Handbook"

KHB 1610.1, "KSC Security Handbook"

KHB 1710.2, "Kennedy Space Center Safety Practices Handbook"

KMI 1710.18, "KSC Safety Assurance Policy"

KNPD 1800.2, "Hazard Communication Program"

KMI 1810.1, "KSC Occupational Medicine Program". On-site Contractors shall comply with Attachment D, KSC Skin Cancer Prevention Program.

KMI 1860.1, "KSC Radiation Protection Program"

KHB 1870.1, "KSC Sanitation Handbook"

KHB 2570.1, "KSC Radio Frequency Spectrum Management Handbook"

KHB 4000.1, "Supply Support System Manual, Part 5, Equipment Management"

KHB 8800.6, "KSC Environmental Control Handbook"

KHB 8800.7, "Waste Management Handbook"

KMI 8800.8, "KSC Environmental Management"

Construction Contractor's Safety Information & Requirements For KSC (Applicable to Construction Contracts Only)

H.15 CENTERWIDE MANPOWER REPORTS (KSC 52.242-93) (NOV 2000)

The Contractor shall submit, on a quarterly basis, a manpower report delineating information about its workforce. The report shall include: the contract number, the contractor's total on-site workforce, total on-site union represented employees by bargaining unit, total on-site non-union represented employees, and total off-site workforce performing on the contract. The Contractor shall provide this information no later than 10 days after the close of each reporting period, which end March 31st, June 30th, September 30th, and December 31st. The report shall be submitted to the Contracting Officer with a copy to NASA KSC Industry Relations (Code QA-A-1.)

H.16 AUTHORIZED CHANGES (KSC 52.243-90) (FEB 1990)

The Contracting Officer or his duly appointed representative are the only individuals authorized to issue instructions to the contractor in matters relating to this contract. The identification, scope of authority and duties of representatives of the Contracting Officer shall be set forth in letters issued by the Contracting Officer and copies of such designations shall be furnished to the Contractor.

H.17 MANAGEMENT AND PROTECTION OF DATA OF THIRD PARTIES

(a) In performance of this contract it is anticipated that the Contractor may have access to, be furnished, use, or generate the following types of data (recorded information):

1. Data of third parties bearing limited rights or restricted rights notices submitted either to NASA or directly to the Contractor; or
2. Other data of third parties which NASA has agreed to handle under protective arrangements; or
3. Data generated by NASA or the Contractor for third parties which NASA intends to control the use and dissemination thereof until delivered to the third parties.

(b) In order to protect the interest of the Government and the interests of the other owners of such data, the Contractor agrees with respect to data in category 1 above, and with respect to any data in categories 2 and 3 when so identified by the Contracting Officer, to:

1. Use and disclose such data only to the extent necessary to perform the work required under this contract, with particular emphasis on restricting the data to employees having a "need to know";
2. Preclude disclosure of such data outside Contractor's organization performing work under this contract without written consent of the Contracting Officer; and
3. Return or dispose of such data as directed by the Contracting Officer or the furnishing third party owner when such data is no longer needed for contract performance.

H.18 WORK FOR OTHERS

A. BACKGROUND AND PURPOSE

The Contractor is authorized and encouraged to undertake Work for Others related to research, development, and testing on John F. Kennedy Space Center (KSC) that would utilize the unique capabilities within the USTDC. These unique capabilities include the Government-furnished facilities for which the Contractor has operational responsibility and/or the expertise of Contractor personnel resident at KSC or that of its university affiliate. The primary purpose of this authority is to provide both commercial and University access to the unique capabilities at KSC and foster the growth of them.

Work for Others is defined as work performed for and paid by Other(s) via a separate agreement between the USTDC Contractor and the other(s). Others include NASA, federal and state agencies, academic, and commercial entities.

Other pertinent definitions:

Government, contract or contract Task Order work - Work directed by the Contracting Officer under this contract via Task Orders or change orders, or is required by the explicit terms and conditions of the contract. Costs are chargeable and reimbursable under the contract.

Government Property – Facilities and material owned by the Government.

Government Facilities – For purposes of this provision, facilities include real property (land, ground improvements, buildings and other structures), plant equipment (personal property of a capital nature, such as, machine tools, equipment and test equipment, furniture, vehicles, and accessory and auxiliary items for use in manufacturing or

performing services, or for any administrative or general plant purpose), special tooling and special test equipment. Facilities do not include materials.

Government Material -- Property that may be incorporated into or attached to an end item or consumed or expended during manufacture, testing or providing services.

B. AGREEMENTS & APPROVALS

The Contractor shall obtain approval of the Contracting Officer for Work for Others before committing to perform the work. The Contractor shall informally partner with the Government to identify and discuss potential Work for Others as far in advance of seeking final approval as is practical. The Contractor shall obtain final approval for each instance of Work for Others by submitting a written request to the Contracting Officer including a draft agreement between the USTDC Contractor and the Other(s) which, at a minimum, shall contain the following information, terms, and conditions:

1. Name and address of the customer.
2. Description of the work to be performed.
3. Identification of the USTDC personnel, KSC facilities and Government personnel (including the estimated number of hours and estimated cost of support needed) required for accomplishing the work.
4. Schedule for accomplishment of the work and impact, if any, on other ongoing activities.
5. Terms and conditions containing the following clauses of this contract:

H.18 "Work for Others," subparagraphs (D) Priority of Use, (E) Liability and Risk of Loss, (F) Intellectual Property, Patent & Invention Rights, (G) News Releases & Publications, (H) Security & Export Control, (I) Safety & Health, (J) Independence of Contracts; and other clauses as may be required by the Contracting Officer.

Additionally, the draft agreement shall be accompanied by a cover letter containing an explanation of the unique nature of the Government-owned facilities and/or USTDC/Government expertise (or combinations thereof) that is not available from commercial sources and justify acceptance of the work.

C. FINANCIAL OBLIGATIONS

1. General

a. The Contractor shall provide consideration to NASA KSC in connection with Government-provided property and services utilized for Work for Others under the authority of this provision. Pursuant to the direction of the Contracting Officer, consideration may be in the form of cash payment from the Contractor to NASA KSC or a credit to the Government under the USTDC contract.

b. The specific cost components, amounts and fees to be reimbursed or credited to NASA KSC, and the points of contact and authority will be established annually in a written procedure. It is anticipated that a separate procedure will be

established for each facility. Generally, reimbursable and creditable costs will include, but may not be limited to the following categories:

- Rent or other appropriate consideration for use of Government property in accordance with FAR 45.403 and FAR 45.404(c).
- Actual cost of Government personnel directly supporting a project (including payroll additives, fringe benefits and G&A).
- Actual cost of Government-provided material, utilities, support services and appropriate overheads.

2. Reimbursement of Government Direct Labor Support

a. For those projects where Government personnel will provide direct labor support, the Contractor will be required to forward advance payments to NASA based upon the estimated number of hours of direct Government support needed. Payment shall be made to NASA KSC prior to the initiation of each project utilizing Government personnel.

b. Payment shall be made in the form of a check payable to "NASA Kennedy Space Center" and sent to:

National Aeronautics and Space Administration
John F. Kennedy Space Center
"Collections Agent"
Mail Code: GG-B-C
Kennedy Space Center, FL 32899

c. NASA KSC's activities under or pursuant to this provision are subject to the availability of appropriated funds, and no provision herein shall be interpreted to require obligations or payment of funds in violation of the Anti-Deficiency Act, 31 U.S.C. § 1341.

d. NASA KSC will send a final billing to the Contractor for the services rendered by Government personnel as soon as possible after the completion of each project. Any overpayment to NASA following completion of a project will be promptly reimbursed to the Contractor.

D. PRIORITY OF USE

It will be the Contractor's overall responsibility to schedule and manage use of assigned Government-furnished facilities to accommodate contract work and Work for Others in a manner to assure the timely, within cost, delivery of quality products and services for all. Since Work for Others projects are subject to Government approval and each request for approval will address scheduling issues, scheduling and priority of use conflicts should be rare. However, in the event circumstances should arise in which the Government requires use of facilities and/or personnel scheduled for use on Work for Others, the Contracting Officer will direct that the Government work shall take

precedence and the Contractor shall immediately proceed with the Government work. NASA will make every reasonable effort to ensure that ongoing and planned Work for Others is not impacted and the exercise of the authority herein stated to require displacement of Work for Others in order to accomplish Government work will be exercised only to the extent necessary to protect the interests of the Government. Such direction will be given only after the Center Director makes a determination that a federal emergency or an event of significant public interest requires the exercise of Government priority.

E. LIABILITY AND RISK OF LOSS

1. General

a. The Contractor and Other(s) waive and agree not to make any claims against the U.S. Government or U.S. Government Contractors or subcontractors, for damage arising from or related to activities under this provision, whether such damage is caused by negligence or otherwise, except in the case of willful misconduct.

b. In addition, the Contractor and Other(s) agree to indemnify and hold the U.S. Government or its Contractors or subcontractors harmless from any claim, judgment, or cost arising from the injury to or death of any person, or for damage to or loss of any property, including U.S. Government property, as a result of activities under this provision, whether such damage is caused by negligence or otherwise, except in the case of willful misconduct.

c. In the event that Other(s) will need to directly participate in Work for Others activities at KSC, the Other(s) will be required to have the same insurance coverage as the USTDC contractor under contract clause H.4, "Minimum Insurance Coverage" (NASA 1852.228-75), unless Other(s) is statutorily authorized to self-insure. Additionally, in those circumstances where the Work for Others activities will involve hazardous operations that place government facilities at risk, the Contracting Officer may require that the Other(s) provide property damage insurance, or an agreement on an alternative method of protection, as discussed in contract clause H.18.E.2

2. Insurance for Damage to NASA Property

- a. For purposes of this article, the following definitions shall be applicable:
- (1). "Liability" shall include payments made pursuant to United States' treaty, any judgment by a court of competent jurisdiction, administrative and litigation costs, and settlement payments.
 - (2). "Damage" shall mean bodily injury to, or other impairment of health of, or death of any person; damage to, loss of, or loss of use of any property; soil, sediment, surface water, ground water, or other environmental contamination or damage; loss of revenue or profits; other direct damages; or any indirect, or consequential damage arising therefrom.

b. Damage to Government Property:

(1). Where required by NASA, within a reasonable time before Other(s) begin to have access to or use of U.S. Government property or services, Other(s) shall obtain or arrange to obtain, at no cost to NASA, insurance to cover the cost of replacing, repairing, or the fair market value of, as reasonably determined by the U.S. Government, any U.S. Government property (real or personal), which property is damaged as a result of any performance of this agreement, including performance by the U.S. Government or the U.S. Government's contractors or subcontractors. Upon obtaining the insurance required under this paragraph, or upon obtaining any modification or amendment thereof, Other(s) shall personally deliver, or send by registered or certified mail, postage prepaid, two copies of such insurance policy, or such modification or amendment, to NASA at the following address, or at such address as NASA may, from time to time, designate in writing:

National Aeronautics and Space Administration
Office of the Chief Counsel
Mail Code CC
Kennedy Space Center, FL 32899

(2). The insurance required under this subparagraph shall provide coverage in an amount acceptable to NASA. All terms and conditions in the policy shall be acceptable to NASA, and shall require 30 days notice to NASA of any cancellation or change affecting coverage. The policy shall name the United States as an insured and shall cover all risks of loss except that it may exclude damage caused by the U.S. Government's willful misconduct. The insurance policy shall provide that the insurer waives its right as a subrogee against U.S. Government contractors, subcontractors, or related entities for damage.

(3). In the event Other(s) is unable to obtain insurance coverage required by subparagraph b(1) above, the parties agree to consider, subject to review, approval and agreement by NASA, alternative methods of protecting U.S. Government property (e.g., by an agreement to indemnify the U.S. Government for such damages).

(4). An insurance policy whose terms and conditions are reviewed and approved by NASA, or an agreement on an alternative method of protection, is a condition precedent to Other(s)' access to or use of U.S. Government property or U.S. Government services under this agreement.

F. INTELLECTUAL PROPERTY, PATENT AND INVENTION RIGHTS

The following intellectual property provisions apply to the activities of Government personnel directly supporting the Contractor's Work for Others pursuant to this provision.

1. General:

Data exchanged between NASA, the Contractor and/or other party(s) in support of Work for Others will be exchanged without restriction as to its disclosure, use or duplication except as otherwise marked or as otherwise provided in this provision. No preexisting proprietary data will be provided by NASA under this agreement unless specifically authorized, in writing, by the owner of the proprietary data.

2. Data First Produced by NASA:

As to data first produced by NASA in carrying out NASA's responsibilities in support of Work for Others and which data would embody trade secrets or would comprise commercial or financial information that is privileged or confidential if it had been obtained from the Contractor or other party(s), such data will, to the extent permitted by law, be appropriately marked with a notice or legend and maintained in confidence for a period of time to be agreed upon after development of the information, with the express understanding that, during the aforesaid period, such data may be disclosed and used by NASA under suitable protective conditions, for the express purpose of carrying out NASA's responsibilities in support of Work for Others. Upon completion of these activities, such data will be disposed of as requested by the Contractor and/or other party(s).

3. Data First Produced by Contractor and/or other party(s):

In the event it is necessary for the Contractor and/or the other party(s) to furnish NASA with data that either existed prior to, was produced outside of, or is first produced by the Contractor and/or other party(s) in carrying out the Contractor's and/or other party(s) responsibilities in support of Work for Others, and such data embody trade secrets or comprise commercial or financial information that is privileged or confidential and such data is so identified with a suitable notice or legend, the data will be maintained in confidence and disclosed and used by NASA and its Contractors, under suitable protective conditions, only for the purpose of carrying out NASA's responsibilities in support of Work for Others. Upon completion of these activities, such data will be disposed of as requested by the owner of the data.

4. Data Disclosing an Invention:

In the event data exchanged between NASA and the Contractor and/or other party(s) discloses an invention for which patent protection is considered and the furnishing party specifically so identifies such data, the receiving party agrees to withhold such data from public disclosure for a reasonable time (presumed to be 1 year unless otherwise mutually agreed to) in order for patent protection to be obtained.

5. Copyright:

In the event data is exchanged with a notice indicating that the data is protected under copyright, such data will be presumed to be published and the following paid-up license shall apply:

- a. If it is indicated on the data that the data existed prior to, or was produced outside of this provision, the receiving party and others acting on its behalf, may reproduce, distribute, and prepare derivative works for the purpose of carrying out the receiving party's responsibilities under this provision.
- b. If the furnished data does not contain the indication of (1) above, it will be assumed that the data was first produced in support of Work for Others, and the receiving party and others acting on its behalf, may reproduce,

distribute, and prepare derivative works for any of its own purposes whatsoever.

6. Disclaimer of Liability:

Notwithstanding the above, NASA shall not be restricted in, nor incur any liability for, the disclosure and use of Data not identified with a suitable notice or legend as set forth in paragraph 3 above. Information contained in any data for which disclosure and use is restricted under paragraphs 2 and 3 above, if such information is or becomes generally known without breach of the above, is known to or is generated by NASA independently of carrying out NASA's responsibilities in support of Work for Others, is rightfully received from a third party without restriction, or is included in data which the Contractor and/or other party(s) has, or is required to furnish to the U.S. Government without restriction on disclosure and use.

7. Data Subject to Export Control:

Technical data, whether or not specifically identified or marked, that is subject to the export control laws and regulations of the United States and that is provided to the Contractor and/or other party(s) in support of Work for Others will be treated as such, and will not be further provided to any foreign persons without proper U.S. Government authorization, where required.

8. NASA Inventions:

NASA will use reasonable efforts to report inventions made by NASA employees as a consequence of the performance of specified NASA activities in support of Work for Others. Upon request, NASA will use reasonable efforts to grant the Contractor and/or other party(s), in accordance with the requirements of 37 CFR Part 404 an exclusive, irrevocable, royalty-free license, except for the repayment of U.S. Government prosecution costs, on terms to be subsequently negotiated to any NASA invention that may be in support of Work for Others and on which NASA decides to file a patent application. This license will be subject to the rights reserved in paragraph 10, below.

9. Joint Inventions with Contractor and/or other party(s):

NASA and the Contractor and/or other party(s) agree to use reasonable efforts to identify and report to each other any inventions made jointly between NASA employees and employees of the Contractor and/or other party(s). Upon request, NASA will agree to refrain from exercising its undivided interest in a manner inconsistent with the Contractor and/or other party(s) commercial interests and to cooperate with the Contractor and/or other party(s) in obtaining patent protection on the Contractor and/or other party(s) undivided interest, subject to the applicable rights reserved in paragraph 10, below.

10. Rights to be Reserved in the Contractor and/or Other Party(s) License:

Any license granted to the Contractor and/or other party(s) pursuant to paragraphs 9 or 10 above will be subject to the reservation of the following rights:

As to inventions made solely by, or jointly between NASA and the Contractor and/or other party(s), the irrevocable, royalty-free right of NASA to practice or have practiced the invention by or on behalf of NASA for research, experimental or demonstration purposes.

11. Protection of Reported Inventions:

When inventions are reported and disclosed between the parties in accordance with the provisions of this clause, the receiving party agrees to withhold such reports or disclosures from public access for a reasonable time, presumed to be one year unless otherwise mutually agreed, in order to facilitate the allocation and establishment of the invention and patent rights under these provisions.

12. Patent Filing Responsibilities and Costs:

The invention and patent rights set forth herein shall apply to any patent applications filed and patents obtained in any country, and each party is responsible for its own costs of preparing, prosecuting, issuing, and maintaining patents covering sole inventions in any country; except NASA and the Contractor and/or other party(s) may, upon the reporting of any invention (sole or joint) or in any license option granted, mutually agree otherwise for any country as to patent application preparation, filing and prosecution responsibilities and costs, and maintenance responsibilities and costs.

G. NEWS RELEASES AND PUBLICATIONS

The parties (NASA, the USTDC Contractor, & Others) agree to coordinate in advance any news releases and/or widely distributed publications that result from activities performed pursuant to this provision. This coordination shall entail notifying the respective points of contact of the proposed news release or publication in sufficient time to allow the other party an opportunity to review and comment as deemed appropriate. None of the parties shall issue a news release or publication prior to the consent of the respective parties' points of contact.

H. SECURITY & EXPORT CONTROL

Access to and use of NASA KSC facilities by Other(s) will be subject to instructions and procedures as described in Kennedy Handbook KHB 1610.1, Revision C "KSC Security Handbook", and NASA Policy Directive NPD 1371.5 "Coordination and Authorization of Access by Foreign Nationals and Foreign Representatives to NASA", which is applicable to NASA Headquarters and NASA Centers (including Component Facilities). In conducting Work for Others at Kennedy Space Center, the USTDC Contractor and Other(s) shall comply with all U.S. export control laws and regulations, including the International Traffic in Arms regulations (ITAR), 22 CFR Parts 120 through 130, and the Export Administration Regulations (EAR), 15 CFR Parts 730 through 799. In the absence of available license exemptions/exceptions, the Contractor and/or Other(s) shall be responsible for obtaining the appropriate licenses or approvals, if required, for the export of hardware, technical data, and software, or for the provision of technical assistance. Additionally, should the Contractor and/or Other(s) employ foreign nationals to participate in Work for Other(s) activities at Kennedy Space Center, the Contractor /

Other(s) shall be responsible for obtaining export licenses, if required, before utilizing such foreign nationals in such activities, including instances where the foreign nationals will have access to export controlled technical data or software at Kennedy Space Center facilities.

I. SAFETY & HEALTH

All agreements entered into by the USTDC Contractor with Other(s) shall incorporate the USTDC Contractor's approved Safety and Health Plan, which Plan shall be binding upon the Other(s) during the conduct of their activities at the Kennedy Space Center.

J. INDEPENDENCE OF CONTRACTS

The parties concur that this contract and the authorities and conditions of this provision are independent of any contract between the Contractor and other parties for the conduct of "Work for Others." By authorizing the Contractor to perform Work for Others, NASA makes no assurances to the Contractor or others as to performance of the objects tested in NASA facilities or other test objects, and relieves the Contractor of none of its obligations under any other contract, grant, or other agreement. This provision does not constitute NASA's endorsement of any test results, resulting designs, hardware, or other matters.

K. AGREEMENT TO ASSUME OBLIGATION TO TECHNOLOGICAL RESEARCH DEVELOPMENT AUTHORITY (CRYOGENIC TESTBED FACILITY)

The Technological Research and Development Authority (TRDA) of the State of Florida operates a program titled "Investment Initiative for Energy Technologies." Under this program the TRDA provided funds to Dynacs Engineering Company, Inc., the predecessor Contractor to this contract, for development of the KSC cryogenic testbed facility (CTF). The CTF is one of the facilities for which the Contractor shall be responsible and in which work may be conducted for Others. An agreement was executed between TRDA and Dynacs setting forth certain obligations upon Dynacs in consideration for the funds provided by TRDA. The principal obligations are that Dynacs develop the market for and engage in the commercialization of the CTF and make royalty payments to TRDA from all non-NASA revenues received in connection therewith. No minimum royalty payments are required. The agreement was effective January 22, 1999 and has a term of ten years. The agreement provides for novation or assignment to the successor Contractor in the event NASA contracts with another company than Dynacs for operation of the CTF. Since the Contractor is the successor to Dynacs for operation of the CTF, the Contractor agrees to immediately enter into discussions with TRDA to accept assignment of and be bound by its agreement with Dynacs or to enter into a replacement agreement mutually agreeable to TRDA and the Contractor. However, in no event shall the Contractor enter into a replacement agreement without the prior review and approval of NASA.

H.19 TASK ORDERING PROCEDURE (NFS 1852.216-80)(OCT 1996)

- (a) Only the Contracting Officer may issue Task Orders to the Contractor, providing specific authorization or direction to perform work within the scope of the contract and as specified in the schedule. The Contractor may incur costs under this contract in performance of Task Orders and Task Order modifications issued in accordance with this clause. No other costs are authorized unless otherwise specified in the contract or expressly authorized by the Contracting Officer.
- (b) Prior to issuing a Task Order, the Contracting Officer shall provide the Contractor with the following data:
- (1) A functional description of the work identifying the objectives or results desired from the contemplated Task Order.
 - (2) Proposed performance standards to be used as criteria for determining whether the work requirements have been met.
 - (3) A request for a task plan from the Contractor to include the technical approach, period of performance, appropriate cost information, and any other information required to determine the reasonableness of the Contractor's proposal.
- (c) Within 15 working days after receipt of the Contracting Officer's request, the Contractor shall submit a task plan conforming to the request.
- (d) After review and any necessary discussions, the Contracting Officer may issue a Task Order to the Contractor containing, as a minimum, the following:
- (1) Date of the order.
 - (2) Contract number and order number.
 - (3) Functional description of the work identifying the objectives or results desired from the Task Order, including special instructions or other information necessary for performance of the task.
 - (4) Performance standards, and where appropriate, quality assurance standards.
 - (5) Maximum dollar amount authorized (cost and fees). This includes allocation of award fee among award fee periods, if applicable.
 - (6) Any other resources (travel, materials, equipment, facilities, etc.) authorized.
 - (7) Delivery/performance schedule including start and end dates.
 - (8) If contract funding is by individual Task Order, accounting and appropriation data.
- (e) The Contractor shall provide acknowledgment of receipt to the Contracting Officer within 3 working days after receipt of the Task Order.
- (f) If time constraints do not permit issuance of a fully defined Task Order in accordance with the procedures described in paragraphs (a) through (d), a Task Order which includes a ceiling price may be issued.
- (g) The Contracting Officer may amend tasks in the same manner in which they were issued.
- (h) In the event of a conflict between the requirements of the Task Order and the Contractor's approved task plan, the Task Order shall prevail.

H.20 ESTABLISHMENT OF THE SPACEPORT RESEARCH AND TECHNOLOGY INSTITUTE (SRTI)

Redacted
Exemp. B(4)

SECTION I - CONTRACT CLAUSES**I.1 LISTING OF CLAUSES INCORPORATED BY REFERENCE**

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

I. FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1)

CLAUSE NUMBER	DATE	TITLE
52.202-1	DEC 2001	DEFINITIONS
52.203-3	APR 1984	GRATUITIES
52.203-5	APR 1984	COVENANT AGAINST CONTINGENT FEES
52.203-6	JUL 1995	RESTRICTIONS ON SUBCONTRACTOR SALES TO THE GOVERNMENT
52.203-7	JUL 1995	ANTI-KICKBACK PROCEDURES
52.203-8	JAN 1997	CANCELLATION, RESCISSION AND RECOVERY OF FUNDS FOR ILLEGAL OR IMPROPER ACTIVITY
52.203-10	JAN 1997	PRICE OR FEE ADJUSTMENT FOR ILLEGAL OR IMPROPER ACTIVITY
52.203-12	JUN 1997	LIMITATION ON PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS
52.204-2	AUG 1996	SECURITY REQUIREMENTS
52.204-4	AUG 2000	PRINTED OR COPIED DOUBLE-SIDED ON RECYCLED PAPER
52.209-6	JUL 1995	PROTECTING THE GOVERNMENT'S INTEREST WHEN SUBCONTRACTING WITH CONTRACTORS DEBARRED, SUSPENDED, OR PROPOSED FOR DEBARMENT
52.211-15	SEP 1990	DEFENSE PRIORITY AND ALLOCATION REQUIREMENT
52.215-2	JUN 1999	AUDIT AND RECORDS--NEGOTIATION
52.215-8	OCT 1997	ORDER OF PRECEDENCE - UNIFORM CONTRACT FORMAT
52.215-11	OCT 1997	PRICE REDUCTION FOR DEFECTIVE COST OR PRICING DATA - MODIFICATIONS
52.215-13	OCT 1997	SUBCONTRACTOR COST OR PRICING DATA -- MODIFICATIONS
52.215-14	OCT 1997	INTEGRITY OF UNIT PRICES
52.215-15	DEC 1998	PENSION ADJUSTMENTS AND ASSET REVERSIONS
52.215-18	OCT 1997	REVERSION OR ADJUSTMENT OF PLANS FOR POSTRETIREMENT BENEFITS (PRB) OTHER THAN PENSIONS

52.215-19 OCT 1997 NOTIFICATION OF OWNERSHIP CHANGES
52.215-21 OCT 1997 REQUIREMENTS FOR COST OR PRICING
DATA OR INFORMATION OTHER THAN
COST OR PRICING DATA -- MODIFICATIONS
(OCT 1997)

52.216-7 DEC 2002 ALLOWABLE COST AND PAYMENT
Insert 30th in Paragraph (a)(3).

52.216-18 OCT 1995 ORDERING
Insert "**contract award**" through "**9/30/07**" in paragraph (a).

52.216-22 OCT 1995 INDEFINITE QUANTITY
Insert "**TBD**" in paragraph (d).

52.217-8 NOV 1999 OPTION TO EXTEND SERVICES
Insert "**60 days prior to the end of the
contract.**" For the period of time within which
the Contracting Officer may exercise the option

52.219-8 OCT 2000 UTILIZATION OF SMALL BUSINESS
CONCERNS

52.219-14 DEC 1996 LIMITATION ON SUBCONTRACTING

52.222-1 FEB 1997 NOTICE TO THE GOVERNMENT OF LABOR
DISPUTES

52.222-2 JUL 1990 PAYMENT FOR OVERTIME PREMIUMS
Insert "\$ 0" in paragraph (a).

52.222-3 AUG 1996 CONVICT LABOR

52.222-4 SEP 2000 CONTRACT WORK HOURS AND SAFETY
STANDARDS ACT - OVERTIME
COMPENSATION

52.222-21 FEB 1999 PROHIBITION OF SEGREGATED FACILITIES

52.222-26 APR 2002 EQUAL OPPORTUNITY

52.222-35 DEC 2001 EQUAL OPPORTUNITY FOR SPECIAL
DISABLED VETERANS, VETERANS OF THE
VIETNAM ERA, AND OTHER ELIGIBLE
VETERANS

52.222-36 JUN 1998 AFFIRMATIVE ACTION FOR WORKERS WITH
DISABILITIES

52.222-37 DEC 2001 EMPLOYMENT REPORTS ON SPECIAL
DISABLED VETERANS, VETERANS OF THE
VIETNAM ERA, AND OTHER ELIGIBLE
VETERANS

52.222-41 MAY 1989 SERVICE CONTRACT ACT OF 1965, AS
AMENDED

52.223-3 JAN 1997 HAZARDOUS MATERIAL IDENTIFICATION
AND MATERIAL SAFETY DATA (ALTERNATE
I) (JUL 1995)
Insert "**As required**" in paragraph (b).

52.223-5 APR 1998 POLLUTION PREVENTION AND RIGHT- TO-
KNOW INFORMATION

52.223-6 MAY 2001 DRUG-FREE WORKPLACE

52.223-10 AUG 2000 WASTE REDUCTION PROGRAM

52.223-11 MAY 2001 OZONE-DEPLETING SUBSTANCES

52.223-12	MAY 1995	REFRIGERATION EQUIPMENT AND AIR CONDITIONERS
52.223-14	OCT 2000	TOXIC CHEMICAL RELEASE REPORTING
52.225-1	MAY 2002	BUY AMERICAN ACT--SUPPLIES
52.225-8	FEB 2000	DUTY-FREE ENTRY
52.225-13	JUL 2000	RESTRICTIONS ON CERTAIN FOREIGN PURCHASES
52.227-1	JUL 1995	AUTHORIZATION AND CONSENT
52.227-2	AUG 1996	NOTICE AND ASSISTANCE REGARDING PATENT AND COPYRIGHT INFRINGEMENT
52.227-11	JUN 1997	PATENT RIGHTS--RETENTION BY THE CONTRACTOR (SHORT FORM)—as modified by NASA FAR SUPPLEMENT 1852.227-11.
52.227-14	JUN 1987	RIGHTS IN DATA--GENERAL ALTERNATE II (JUN 1987) ALTERNATE III (JUN 1987) AS MODIFIED BY 1852.227-14 NASA FAR SUPPLEMENT (OCT 1995)
52.227-16	JUN 1987	ADDITIONAL DATA REQUIREMENTS
52.228-7	MAR 1996	INSURANCE—LIABILITY TO THIRD PERSONS
52.232-9	APR 1984	LIMITATION ON WITHHOLDING OF PAYMENTS
52.232-17	JUN 1996	INTEREST
52.232-18	APR 1984	AVAILABILITY OF FUNDS
52.232-22	APR 1984	LIMITATION OF FUNDS
52.232-23	JAN 1986	ASSIGNMENT OF CLAIMS
52.232-25	FEB 2002	PROMPT PAYMENT (ALTERNATE I) (FEB 2002)
52.232-34	MAY 1999	PAYMENT BY ELECTRONIC FUNDS TRANSFER--OTHER THAN CENTRAL CONTRACTOR REGISTRATION
		Insert ("designated office- Accounts Payable Office, Mail Code GG-B-C2, Kennedy Space Center, FL 32899) no later than concurrent with the first request for payment" in Paragraph (b)(1).
52.233-1	JUL 2002	DISPUTES (ALTERNATE I) (DEC 1991)
52.233-3	AUG 1996	PROTEST AFTER AWARD (ALTERNATE I) (JUN 1985)
52.237-2	APR 1984	PROTECTION OF GOVERNMENT BUILDINGS, EQUIPMENT, AND VEGETATION
52.237-3	JAN 1991	CONTINUITY OF SERVICES
52.239-1	AUG 1996	PRIVACY OR SECURITY SAFEGUARDS
52.242-1	APR 1984	NOTICE OF INTENT TO DISALLOW COSTS
52.242-3	MAY 2001	PENALTIES FOR UNALLOWABLE COSTS
52.242-4	JAN 1997	CERTIFICATION OF FINAL INDIRECT COSTS
52.242-13	JUL 1995	BANKRUPTCY
52.243-2	AUG 1987	CHANGES--COST-REIMBURSEMENT (ALTERNATE II) (APR 1984)
52.244-2	AUG 1998	SUBCONTRACTS (ALTERNATE I) (AUG 1998)

		Insert " Cost Reimbursement, Time & Materials, and Labor-hour type subcontracts " in paragraph (e) and TBD
		in paragraph (k).
52.244-5	DEC 1996	COMPETITION IN SUBCONTRACTING
52.244-6	MAY 2001	SUBCONTRACTS FOR COMMERCIAL ITEMS
52.245-5	JAN 1986	GOVERNMENT PROPERTY (COST REIMBURSEMENT, TIME-AND-MATERIAL, OR LABOR-HOUR CONTRACTS (AS MODIFIED BY NFS 1852.245-71)
52.245-9	APR 1984	USE AND CHARGES
52.246-25	FEB 1997	LIMITATION OF LIABILITY-- SERVICES
52.247-1	APR 1984	COMMERCIAL BILL OF LADING NOTATIONS
52.249-6	SEP 1996	TERMINATION (COST-REIMBURSEMENT)
52.249-14	APR 1984	EXCUSABLE DELAYS
52.251-1	APR 1984	GOVERNMENT SUPPLY SOURCES
52.251-2	JAN 1991	INTERAGENCY FLEET MANAGEMENT SYSTEM VEHICLES AND RELATED SERVICES
52.253-1	JAN 1991	COMPUTER GENERATED FORMS

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

CLAUSE NUMBER	DATE	TITLE
1852.203-70	JUN 2001	DISPLAY OF INSPECTOR GENERAL HOTLINE POSTERS
1852.204-76	JUL 2002	SECURITY REQUIREMENTS FOR UNCLASSIFIED INFORMATION TECHNOLOGY RESOURCES
		Insert " within 30 calendar " days" in paragraph (c).
1852.209-72	DEC 1988	COMPOSITION OF THE CONTRACTOR
1852.216-89	JUL 1997	ASSIGNMENT AND RELEASE FORMS
1852.219-74	SEP 1990	USE OF RURAL AREA SMALL BUSINESSES
1852.219-76	JUL 1997	NASA 8 PERCENT GOAL
1852.219-77	MAY 1999	NASA MENTOR-PROTEGE PROGRAM
1852.236-73	DEC 1988	HURRICANE PLAN
1852.237-70	DEC 1988	EMERGENCY EVACUATION PROCEDURES
1852.242-78	APR 2001	EMERGENCY MEDICAL SERVICES AND EVACUATION
18-52.243-71	MAR 1997	SHARED SAVINGS

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

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

I.3 NOTIFICATION OF COMPETITION LIMITED TO ELIGIBLE 8(a) CONCERNS (FAR 52.219-18) (JUN 1999) (DEVIATION)

(a) Offers are solicited only from small business concerns expressly certified by the Small Business Administration (SBA) for participation in the SBA's 8(a) Program and which meet the following criteria at the time of submission of offer--

(1) The Offeror is in conformance with the 8(a) support limitation set forth in its approved business plan; and

(2) The Offeror is in conformance with the Business Activity Targets set forth in its approved business plan or any remedial action directed by the SBA.

(b) By submission of its offer, the Offeror represents that it meets all of the criteria set forth in paragraph (a) of this clause.

(c) Any award resulting from this solicitation will be made directly by the Contracting Officer to the successful 8(a) offeror selected through the evaluation criteria set forth in this solicitation.

(d)(1) Agreement. A small business concern submitting an offer in its own name agrees to furnish, in performing the contract, only end items manufactured or produced by small business concerns in the United States. The term "United States" includes its territories and possessions, the Commonwealth of Puerto Rico, the trust territory of the Pacific Islands, and the District of Columbia. If this procurement is processed under simplified acquisition procedures and the total amount of this contract does not exceed \$25,000, a small business concern may furnish the product of any domestic firm. This subparagraph does not apply in connection with construction or service contracts.

(2) The ASRC Aerospace Corporation, will notify the NASA Kennedy Space Center Contracting Officer in writing immediately upon entering an agreement (either oral or written) to transfer all or part of its stock or other ownership interest to any other party.

I.4 STATEMENT OF EQUIVALENT RATES FOR FEDERAL HIRES (FAR 52.222-42) (MAY 1989)

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

This Statement is for Information Only:

It is not a Wage Determination (Classes of Employees are based on the 2001 SF 98 submittal to the Department of Labor for Contract NAS10-98001).

CLASSES OF EMPLOYEES (Service Contract Act Title)	HOURLY WAGE RATE THAT WOULD BE PAID IF FEDERALLY EMPLOYED
Illustrator III	17.93
Secretary I	10.58
Secretary III	13.19
Word Processor II	10.58
Accounting Clerk II	9.42
General Clerk IV	10.58
Supply Technician	14.66
Drafter IV	14.66
Engineering Technician III	11.84
Engineering Technician IV	14.66
Engineering Technician V	17.93
Laboratory Technician	13.19

Fringe Benefits are as follows:

1. Paid holidays: New Year's Day, Martin Luther King's Birthday, President's Day, Memorial Day, Independence Day, Labor Day, Columbus Day, Veterans Day, Thanksgiving Day, and Christmas Day.

2. Annual Leave: Two hours of annual leave each week for an employee with less than three years service; three hours of annual leave for an employee with three but less than fifteen years of service; and four hours of annual leave each week for an employee with fifteen or more years of service.

3. Sick Leave: Two hours of sick leave each week.

4. Life, accident and health insurance programs: Government pays 33.3% of cost for life insurance; workman's compensation covers 100% of accident; and depending on health plan chosen, Government pays up to 75% of health insurance.

5. Retirement: Employees covered under CSRS – 7% of annual rate. Employees covered under FERS - .08 basic retirement plus 1% TSP contribution and up to 4% more matching TSP contribution.

I.5 ESTIMATE OF PERCENTAGE OF RECOVERED MATERIAL CONTENT FOR EPA-DESIGNATED PRODUCTS (FAR 52.223-9) (AUG 2000)

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

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

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

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

(1) Estimate the percentage of the total recovered material used in contract performance, including, if applicable, the percentage of postconsumer material content; and

(2) Submit this estimate to _____ TBD _____ [Contracting Officer complete in accordance with agency procedures].

I.6 CLAUSES INCORPORATED BY REFERENCE (FAR 52.252-2)(FEB 1998)

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

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

<http://www.hq.nasa.gov/office/procurement/regs/nfstoc.htm>

I.7 OMBUDSMAN (NFS 1852.215-84) (JUN 2000) (ALTERNATE I) (JUN 2000)

(a) An ombudsman has been appointed to hear and facilitate the resolution of concerns from offerors, potential offerors, and contractors during the pre-award and post-award phases of this acquisition. When requested, the ombudsman will maintain strict confidentiality as to the source of the concern. The existence of the ombudsman is not to diminish the authority of the contracting officer, the Source Evaluation Board, or the selection official. Further, the ombudsman does not participate in the evaluation of proposals, the source selection process, or the adjudication of formal contract disputes. Therefore, before consulting with an ombudsman, interested parties must first address their concerns, issues, disagreements, and/or recommendations to the contracting officer for resolution.

(b) If resolution cannot be made by the contracting officer, interested parties may contact the installation ombudsman,

Mr. James W. Kennedy/ Kennedy Space Center Code AA-A Kennedy Space Center, FL 32899

Telephone: (321) 867-2355 FAX: (321) 867-7787 e-mail: james.w.kennedy@nasa.gov

Concerns, issues, disagreements, and recommendations which cannot be resolved at the installation may be referred to the NASA ombudsman, the Director of the Contract Management Division, at 202-358-0422, facsimile 202-358-3083, e-mail sthumps1@hq.nasa.gov. Please do not contact the ombudsman to request copies of the solicitation, verify offer due date, or clarify technical requirements. Such inquiries shall be directed to the contracting officer or as specified elsewhere in this document.

(c) If this is a task or delivery order contract, the ombudsman shall review complaints from contractors and ensure they are afforded a fair opportunity to be considered, consistent with the procedures of the contract.

I.8 MANAGEMENT OF NASA-OWNED/CONTRACTOR-HELD RECORDS (KSC 52.245-90) (NOV 1998)

A. NASA-owned/Contractor-held records shall be maintained by the Contractor in accordance with the instructions set forth in the latest editions of NPD 1440.6F, NASA Records Management, NPG 1441.1C, NASA Records Retention Schedules, and KNPD 1440.1, KSC Records Management and Vital Records Programs. As directed by the Contracting Officer, the Contractor shall obtain prior approval from the Contracting Officer to destroy or remove records subject to this clause.

B. NASA-owned/Contractor-held records shall consist of documentation of Contractor activities and functions necessary for the performance of this contract, including, but not limited to, documentation of those day-to-day operating procedures that are essential to carrying out the statement of work and those actions, organizational structure, policies, decisions, operations, and activities necessary to perform or continue the work performed under the contract. NASA-owned/Contractor-held records shall not include those Contractor records that relate exclusively to the Contractor's internal business or are of a general nature not specifically related to the performance of work under the contract. The Contractor's general policies, procedures, etc., that apply to the general conduct of its business do not fall under the purview of this clause. When in doubt, the Contractor shall seek the Contracting Officer's determination as to which records are subject to this clause.

C. The Contractor shall ensure that NASA-owned/Contractor-held records are segregated from company-owned records and from non-record materials. This clause operates independently from and is not intended to affect, or be effected by, the Contractor records provisions contained in FAR Subpart 4.7 and the clauses referenced therein.

D. The Contractor, through the Contracting Officer, shall coordinate with the KSC Records Manager, on matters requiring advice, such as marking and segregating such records, or technical assistance in all areas of management pertaining to such records.

E. The contractor shall prepare and submit KSC Form 16-516, KSC Annual Summary of Record Holdings, on an annual basis to the KSC Records Manager.

I.9 AUTHORIZED DEVIATIONS IN CLAUSES (FAR 52.252-6)(APR 1984)

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.

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

[END OF SECTION]

SECTION J - LIST OF ATTACHMENTS

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J-1 Appendix B, Applicable Documentation List	2
J-1 Appendix C, Facilities and Laboratory List	2
J-2 Installation Provided Property List	44
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J-5A, ASRC Aerospace Rates	4
J-5B, Swales Aerospace Rates	2
J-5C, Sierra Lobo Rates	4
J-5D, University of Florida Rates	4
J-6 SCA Wage Determination	10
J-7 Pension Plan (to be incorporated after contract award)	TBD
J-8 ASRC USTDC Investment Profile	5

UNIVERSITY-AFFILIATED
SPACEPORT TECHNOLOGY
DEVELOPMENT CONTRACT
(USTDC)

PERFORMANCE WORK STATEMENT
(PWS)

March 1, 2003

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1.0 OVERVIEW

1.1 Purpose

This Performance Work Statement (PWS), including Appendices A through C, describes the general scope of activities required to be performed by the University-affiliated Spaceport Technology Development Contractor (hereinafter referred to as "The Contractor") in order to provide research and engineering products and services to the Kennedy Space Center (KSC), FL. This PWS describes the general scope of work. All work pursuant to Sections 3 through 6 will be authorized by Performance-based Task Orders issued in accordance with the terms of the contract.

1.2 Scope

The Contractor shall perform the work directed in task orders, which may include the following range of activities:

- Perform applied research and technology development of spaceport and range technologies.
- Provide design engineering in support of spaceport and range technologies and operations.
- Perform operation and maintenance of spaceport and range development sites, facilities, laboratories, and equipment.
- Provide research and engineering services and expertise in support of spaceport and range customers and other government agencies.
- Provide technical support services to KSC organizations.

1.3 Joint Occupancy

Joint Occupancy means that there may be other contractors or NASA employees utilizing the same facilities/laboratories during a particular schedule period. This is an intermittent condition and may affect one or more facilities/laboratories at any particular time. Adequate notice will be provided prior to a joint occupancy condition and the Government will have the responsibility for resolving schedule conflicts

1.4 Data Deliverables

The Contractor shall provide those plans, procedures, data, and reports identified in the Data Requirements List (DRL) and described in Data Requirements Descriptions (DRD) specified in Appendix A. The Contractor is encouraged to submit data in electronic format where it is practical.

1.5 Performance Surveillance

The Government will monitor and evaluate the Contractor's performance in accordance with procedures set forth in the Government's Performance Surveillance and Award Fee Plan, Attachment J-3.

1.6 Spaceport Technology Center (STC) Vision

The Kennedy Space Center Roadmap [KDP-KSC-S-2001 Rev: C (11/01)] provides for the establishment of KSC as "a premier Spaceport Technology Center," including a fully implemented university partnership. This vision includes the evolution of a largely

resident, collaborative (NASA/academia/industry) research and technology development environment utilizing and building upon KSC's unique onsite labs, testbeds, and intellectual capabilities, while maintaining a level of excellence in design engineering for existing and future customers. The Roadmap recognizes to fully develop the STC into a "premier research and development Center," an initial "partnership" must be established, and several years may be required to nurture this partnership and enhance KSC's capabilities to obtain this vision. Among the purposes of this contract is to establish the initial NASA/academia/industry affiliation upon which to build the STC, and over the term of the contract grow this affiliation and the research and development component of the USTDC into a fully developed STC.

During the performance of contract work, the Contractor shall to the fullest extent possible and consistent with the nature and cost effectiveness of the work, utilize its university affiliate as an integrated team member for the accomplishment of appropriate tasks. The term "affiliate" as used in this paragraph means to obtain via subcontract or other legally binding agreement the services of a specific university, or a specified consortium of universities, that would support the indefinite delivery / indefinite quantity requirements of the USTDC.

1.6.1 Research and Development Vision

To the fullest extent possible in the conduct of the contract work, the Contractor shall emphasize the growth and strengthening of KSC's R&D activities and capabilities by implementation of the following principles:

- (1) It is vital to the success of KSC's R&D mission to establish a collaborative environment among the NASA, university, and industry team that allows for the free exchange of ideas thus leading to innovative solutions to satisfy the needs of KSC's spaceport technology customers.
- (2) The university partner's primary role is to perform applied research. The industry partner's primary role is to mature the research into a viable technology for potential incorporation into spaceport and range systems. NASA will perform both applied research and technology development in collaboration with or independent of the Contractor.
- (3) To expeditiously utilize academic research in the resolution of KSC's spaceport technology issues, an appropriate mix of on-site and off-site university participation shall be established as dictated by the economies of the research. The initial on-site university presence is expected to be small, but expectations are to grow this activity over the duration of the contract.
- (4) Proposal awards from Agency and other entity solicitations will be important for the initial growth of this R&D activity. An aggressive approach for identifying suitable solicitations, and submitting exceptional proposals will be critical.
- (5) A key element in the maturation of technology is the establishment of an on-going dialogue between developers and applied researchers for the identification of future technology needs and forthcoming innovations.
- (6) The Contractor will be knowledgeable of worldwide scientific and technological developments in areas of relevant work to ensure competitiveness of proposal

submissions and avoid wasting resources on previously developed research and technology.

- (7) To increase recognition of the KSC Spaceport Technology Center as the preeminent R&D entity in spaceport and range related technologies, the Contractor shall publish their results and findings in peer-reviewed journals and present at conferences of prestige in their field.
- (8) The Contractor will be knowledgeable of Intellectual Property (IP) issues associated with research and development. The Contractor will consolidate IP rights in one entity where possible and ensure protection of IP prior to publishing.

1.6.2 Technology Outreach Vision

The STC is envisioned to embody the combined activities of those entities at KSC engaged in the research, development and application of technologies and operations for existing or future Spaceports and Ranges. The core entities will include, but not be limited to, the Contractor and/or its university affiliate, the KSC civil service personnel dedicated to spaceport technology development activities, and other partners collaborating with them in spaceport technology development and related activities. Funding and resources for these activities will come from a variety of sources sought by all participants, such as NASA appropriations, other Government agencies, industry, and academia. A primary objective of the outreach program is to educate and secure potential customers and partners for the utilization of the unique intellectual competencies and facilities of the STC. Another objective is that performing Work for Others will increase the technical and intellectual capabilities of the STC and enhance its capability to develop cutting-edge technology applicable to NASA missions.

2.0 BUSINESS MANAGEMENT AND ADMINISTRATION

The Contractor shall develop, implement and maintain those business management systems required for effective and efficient accomplishment of contract work. In general, business management and administrative functions described in this section will not be covered by specific Task Orders. Areas include, but are not limited to, the following:

2.1 Management

The Contractor shall institute and maintain an effective, efficient, and responsive management organization responsible for management and oversight of Contractor personnel, other contract resources, contract performance, deliverables, and cost. The Contractor shall promptly alert the Contracting Officer's Technical Representative (COTR) and the Contracting Officer (CO) of any problems that may adversely impact the timely and cost-effective delivery of quality products and services under this contract.

2.2 Management Reviews

The Contractor shall participate in the following types of meetings and reviews:

2.2.1 Bi-Weekly Senior Management Meetings

Senior Contractor personnel shall attend informal bi-weekly meetings with NASA managers to discuss accomplishments, problems, corrective actions and other details of contract operations.

2.2.2 Contracting Officer and Technical Representative Meeting

The Contractor shall attend weekly meetings to discuss contract issues, process improvements, corrective actions, and other details of contract operations. These informal meetings will normally be attended by the NASA Contracting Officer and Technical Representative(s), and by representatives from the NASA Resources Management Office.

2.2.3 Quarterly Contract Review Meeting

The Contractor shall present a quarterly contract review to the Government in accordance with its Internal Surveillance Plan (DRD-002). The review shall present the Quarterly Internal Surveillance Report (DRD-003).

2.3 Management Information System

The Contractor shall use, operate, and maintain the government furnished Management Information Decision Analysis System (MIDAS). MIDAS utilizes a suite of automated administrative systems to manage project costs and planning. The custom developed open system integrates the scheduling, resource management, budget planning, and Task Order systems with the cost accounting systems to provide a seamless top down project management system. MIDAS is a WEB based data warehouse system that supports Performance Based Contract (PBC) requirements and Earned Value Management (EVM) objectives. Using scheduling and resource planning data produced by Enterprise Project (EP) and Microsoft Project (PROJECT), MIDAS generates total estimated project costs and monthly budgets at the task and funding levels consistent with the Work Breakdown Structure (WBS) and tasks planned in the PROJECT schedule. A Deltek Costpoint system is used for managing cost accounting functions, including payroll, procurement, accounts payable, and 533 reporting. Actual costs, collected via the Costpoint cost accounting system, periodically update the data warehouse, where they are allocated against the task and funding budgets provided during the project planning cycle. Additionally, the MIDAS system supports the development and tracking of project milestones, metrics and deliverables developed during the planning phase. Performance against milestones and metrics can be tracked and reported. Data analysis and reporting tools provide EVM analysis, status reporting, 533 reporting, resource usage analysis, trend analysis, and alerts and warning reports with drill down capability. The Contractor shall modify the system as required to be compatible with their structure and processes. In the event that deployment of MIDAS is not completed at contract start, the Contractor shall complete deployment and until deployment is accomplished shall utilize alternate management capabilities for project and cost reporting. Improvements and/or upgrades to MIDAS may be required over time, including development of interfaces to other NASA, Contractor or Subcontractor database systems.

2.4 Risk Management

The Contractor shall develop and implement management approaches, including the criteria, methods, and procedures for identifying, analyzing, planning, tracking, controlling, communicating, and documenting USTDC-related risks associated with:

- Contract Transition/Phase-In
- Contract Administration
- Performance of PWS Requirements
- Accomplishment of Task Orders
- Annual Staffing Plans vs. Projected Workloads

The Contractor shall develop, implement, and update a Risk Management Plan (DRD 010) in accordance with NPG 7120.5, NASA Program and Project Management Processes and Requirements (Section 4.2, Risk Management) and NPG 8000.4, Risk Management Procedures and Guidelines. The Risk Management Plan shall provide an organized, systematic decision making process that efficiently manages risks associated with the USTDC at KSC.

The Contractor shall identify and discuss risk factors and issues, for the areas delineated above, which are relevant with the performance of assigned duties during management meetings and contract reviews. This discussion shall include methods to mitigate/manage identified risks.

2.5 Safety, Health, Reliability, Maintainability & Quality Assurance

The Contractor shall develop, implement, and maintain a NASA compliant Safety, Health, Reliability, Maintainability, and Quality Assurance (SRM&QA) program that addresses all USTDC activities.

2.5.1 The NASA Safety Hierarchy

The Agency Safety Initiative established the NASA safety hierarchy – the order NASA uses to prioritize its safety efforts. The safety hierarchy is:

- First, safety for the public. NASA absolutely must protect the public from harm.
- Second, safety for astronauts and pilots, because they expose themselves to risk in high hazard flight regimes.
- Third, safety for the NASA workforce, because NASA owes it to the workforce to provide them with a safe and healthful workplace.
- Fourth, safety for high-value equipment and property, because NASA is a steward of the public's trust.

By focusing on the safety of NASA's mission and operations, NASA will improve quality and decrease cost and schedule.

2.5.2 Safety and Health

The Contractor shall establish and implement a safety and health program that provides protection from injury or damage due to the Contractor's operations, to members of the general public, personnel, facilities, systems, and equipment. The safety program shall comply with federal regulations, NASA, and KSC requirements, and satisfy the Safety and Mission Assurance (S&MA) tasks, activities, and requirements in NPD 8700.1, NASA Policy for Safety and Mission Success; NPD 8710.2C, NASA Safety and Health Program Policy; and NPG 8715.3, NASA Safety Manual; and the applicable safety and health policy documents (ref. Appendix B, "List of Documents").

The Contractor shall develop, implement, and update a Safety and Health Plan (DRD-007) that applies to all aspects of the Contractor's activities.

2.5.2.1 System Safety

The Contractor shall develop and implement a process for the identification, mitigation, and control of hazard throughout the complete life cycle (design, development, manufacture, test, operations, maintenance, and disposal) of the facilities, systems, equipment, and processes for which the Contractor is responsible. The process shall include qualitative or quantitative risk assessments, hazards analyses, and other analytical methods. The Contractor shall select the type of assessment based on the identified level of risk. The Contractor shall submit system safety assessments for new and modified facilities, systems, equipment, and processes (when there is an increase in baselined risk level) to the government for review and approval.

The Contractor shall comply with the NASA-managed safety program for Pressure Vessels and Pressure Systems in accordance with NPD 8710.5, NASA Safety Policy for Pressure Vessels and Pressurized Systems. The Contractor shall develop and maintain and Pressure Vessel Certification Report (DRD-020).

2.5.2.2 Operational Safety

The Contractor shall develop and implement a process in which testing, operations, and maintenance activities are assessed for hazards. The process shall identify how personnel and property will be protected from injury or harm as a result of exposure to these hazards. The process shall provide for hazardous operation surveillance, hazardous procedure review, and risk assessments associated with deviations from procedures or safety and health requirements. The Contractor shall document the assessments.

The Contractor shall conduct an operations safety assessment of all high risk, first time, and out-of-family operations and submit the assessment to the government for review and approval.

2.5.2.3 Mishap/Close Call Reporting and Investigation

The Contractor shall report all mishaps and close calls in accordance with NPG 8621.1 NASA Procedures and Guidelines for Mishap Reporting, Investigating, and Recordkeeping, and KHB 1710.2, KSC Safety Practices Handbook. All mishaps and close calls shall be entered into the NASA Incident Reporting Information System (IRIS) database. The Contractor shall conduct human factors analyses of all mishaps and close calls, including performing root cause analyses and implementing remedial/corrective actions for all mishaps and close calls to ensure root causes are identified and mitigated, with the goal of recurrence prevention (reference MIL-STD-1472, Human Engineering Design Criteria For Military Systems, Equipment and Facilities).

The Contractor shall provide summary data on mishaps in the Safety Statistics Report (DRD-019).

2.5.2.4 Voluntary Protection Program

The Contractor shall have a robust safety and health program that could be certified to the most recent OSHA Voluntary Protection Program (VPP) Star certification requirements within 24 months after contract start. The Contractor shall develop the methodology for self-assessment of their safety and health program against 29 CFR OSHA 1960, including process(es) for correcting identified program deficiencies. The Contractor shall document its progress towards compliance with this requirement in the Internal Surveillance Report (DRD-003).

Twenty-four months after contract start, the Contractor shall demonstrate to the Government compliance with OSHA Star certification requirements in the same format required for the OSHA Star certification application. Thereafter, the Contractor shall document its continued compliance with VPP Star certification requirements in quarterly Internal Surveillance Reports. If the Contractor chooses to obtain OSHA VPP Star certification, the Contractor shall provide NASA with a copy of all reports submitted to OSHA for the purpose of maintaining Star certification.

2.5.3 Reliability and Maintainability

The Contractor shall develop and implement a Reliability and Maintainability program that meets the requirements of NPD 8720.1, NASA Reliability and Maintainability Program Policy, and NASA-STD-8729.1, Planning, Developing, and Managing an Effective Reliability and Maintainability (R&M) Program. The Contractor shall develop and implement a process that ensures the reliability and maintainability throughout the lifecycle of the facility systems and equipment for which the Contractor is responsible. The process shall include assessments of reliability and maintainability performance against baseline allocations; preparation of reliability assessments and trend analyses; and participation in failure reviews.

The Contractor shall perform Failure Modes and Effects Analyses on facility systems and ground support equipment for which it has sustaining responsibility, in accordance with appropriate program/project requirements (e.g., NSTS 22206, Requirements for Preparation and Approval of Failure Modes and Effects Analysis and Critical Items List), to ensure that equipment design meets the fail-safe requirement. The Contractor shall integrate the results of reliability assessments with the system safety function of risk identification.

The Contractor shall participate in the Government Industry Data Exchange Program (GIDEP) and NASA Advisory reporting systems in accordance with NPG 8735.1, Procedure for Exchanging Parts, Materials, and Safety Problem Data Utilizing the Government-Industry Data Exchange Program and NASA Advisories (DRD-021).

2.5.4 Quality Management/Assurance

The Contractor shall develop a Quality Management program that shall meet the requirements of NPD 8730.3, NASA Quality Management System Policy (ISO9000), and all appropriate Agency documents (ref. Appendix B, "List of Documents"). The Contractor's Quality Management System Plan shall be developed and provided in accordance with DRD-012).

The Contractor shall collect evidence derived from empirical data including, but not limited to test results, analysis reports, inspection records, and delivery logs to establish that the products and services delivered to the government are in compliance with the requirements and specifications in this contract.

The Contractor shall develop and implement a process to control and improve the quality of products and services provided under this contract. The Contractor shall develop a set of parameters with government concurrence, to be monitored by contractor quality personnel for the measurement and verification of critical processes that control key product characteristics. The measurements shall include, but not be limited to, data on product and service quality, workmanship, and rework. The process shall be auditable by the government and documented by the Contractor.

The Contractor shall create and sustain open communications with employees and subcontractors to identify, report, and resolve nonconformances, problems, and anomalies. The Contractor shall initiate action, including requesting government approval, to change requirements that are indicated by trending and data analysis to be unreasonable or unnecessary, and to improve processes that result in products or services that fail to meet requirements.

2.5.4.1 International Organization for Standardization (ISO) 9001:2000 Compliance

The Contractor shall comply with all NASA KSC ISO 9001:2000 Quality Management System Requirements" processes. The Contractor shall have in place a management system that could be certified as ISO 9001:2000 compliant within 12 months of contract initiation. The Contractor shall document its progress towards compliance with this requirement in the quarterly Internal Surveillance Report (DRD-003).

2.6 Export Control

The Contractor shall implement an Export Control Program to assure compliance with International Traffic in Arms Regulation (ITAR) and Export Administration Regulations (EAR). The Contractor shall develop, update, and implement an Export Control Program (ECP) Plan (DRD-015).

The Contractor shall identify an Export Control Official responsible for the implementation and conduct of the program and to coordinate issues with the government point of contact, the KSC Center Export Administrator (CEA).

2.7 Lessons Learned

The Contractor shall develop, update and implement a process to capture, disseminate, and implement lessons learned, both positive and negative, in accordance with NPG 8621.1, NASA Procedures and Guidelines for Mishap Reporting, Investigating, and Recordkeeping, and NPG 7120.5A, NASA Program and Project Management Processes and Requirements. The Contractor shall enter lessons learned into the government provided Lessons Learned Information System operated by the Goddard Space Flight Center (GSFC).

2.8 Environmental Compliance

The Contractor shall ensure environmental compliance as defined in KMI 8800.8, "KSC Environmental Management." Specific guidance and responsibilities for environmental management and documentation for this Center are defined in KHB 8800.6, "KSC Environmental Control Handbook."

The Contractor shall develop the required documentation for its assigned projects and perform the services required in this PWS in compliance with the procedures and regulations defined in KHB 8800.6. Specific guidance and responsibilities for environmental documentation for this Center are outlined in KHB 8800.6. The Contractor shall prepare all necessary permit applications and submit to the NASA Environmental Program Office, TA-C3.

The Contractor shall maintain appropriate data files within the NASA Environmental Tracking System (NETS) or supply data as required for input to NETS.

The Contractor shall be responsible for compliance with the procedures for handling and managing hazardous wastes as defined in KHB 8800.7, "Waste Management Handbook."

The Contractor shall comply with the most current Executive Orders on Affirmative Procurement and Recycling, Hazardous Chemical Inventory and Use Reduction, and Energy and Water Conservation.

2.9 Public Affairs

The Contractor shall conduct laboratory tours and interviews requested by NASA KSC. The Contractor shall generate and coordinate news releases with NASA Public Affairs, where appropriate.

2.10 Desktop Computers

The Contractor's desktop computer needs will be provided as a Government-furnished service.

2.11 IT Security

The Contractor shall comply with NPG 2810.1, Security of Information Technology Guideline. Existing systems retained by the Contractor shall be brought into compliance within six months of contract start date. New systems shall be compliant prior to authorization to process. The Contractor shall develop, update and implement an IT Security Plan (DRD-008). NASA IT Security personnel will perform the penetration testing requirements of NPG 2810.1, Section 4.6, per KDP-KSC-P-1334.

2.12 Emergency Preparedness

The Contractor shall develop, update, and implement an Emergency Preparedness Plan (DRD-001) in compliance with JHB 2000, Consolidated Comprehensive Emergency Management Plan and JDP-KSC-P-3014, Generic Emergency Procedures Document. The plan shall include the Contractor's assigned facilities, systems, equipment, and operations. The Contractor shall plan for and participate in drills and implement their Emergency Preparedness Plan for declared emergencies.

2.13 Technology Outreach Program

To achieve the Technology Outreach Vision of paragraph 1.6.2, the USTDC contractor shall develop and conduct an active technology outreach program to attract research and development Work for Others and partnerships that utilize the unique facilities and/or expertise of the STC. The Contractor shall locate and educate potential customers and partners with similar technological needs and interests to KSC's with the goal of having customers fund research, development, and testing efforts at the STC and creating partnerships to perform jointly funded collaborative research and development.

The Contractor shall submit an annual Technology Outreach Plan (DRD-011) that shall discuss the Contractor's commitment to attracting new research and development work and the Contractor's approach to consolidating, coordinating and preserving Intellectual Property rights.

3.0 APPLIED RESEARCH AND TECHNOLOGY DEVELOPMENT

In performing KSC's mission to develop Spaceport and Range Technologies, the Contractor shall conduct applied research and technology development (R&D) in areas such as, but not limited to fluid systems; structures and materials; process and human factors engineering; command, control, and monitoring; and range. The scope of the R&D activity primarily encompasses Technology Readiness Levels (TRL) 3 thru 6, which progresses technology from proof-of-concept of a characteristic to a prototype system demonstration in a relevant environment (reference NASA Technology Plan). At the onset of the contract the bulk of the R&D activity will be in the upper TRL's (5&6), although during the period of the contract expectations are to grow the lower TRL (3&4) development activity.

The Contractor shall evaluate the technology needs of spaceport customers, and identify where the development of specific technologies will reduce cost and improve the safety, reliability, and performance of existing and future spaceport systems. The Contractor shall propose technology projects for NASA KSC's consideration and funding. These projects should have the potential of developing a product to be funded by a targeted customer once the technology maturity is raised.

The Contractor shall perform applied research and technology development activities including: concept formulation, modeling, analysis, and critical characteristic proof-of-concept; component and/or breadboard validation in laboratory and relevant environments; and prototype demonstration in relevant field and operational environments.

KSC's Spaceport Technology Center concept subdivides the development activities into product lines and focus areas. Product lines are broad discipline categories where technology advancement is crucial in providing future spaceport and range products. Product lines are made-up of multiple focus areas that address a narrow scope of technologies within the discipline. NASA will provide the leadership for the strategic planning of the Spaceport and Range product lines. The Contractor shall provide technical leadership and contribute to the strategic planning for focus areas when assigned by NASA.

The Contractor shall perform spaceport and range technology related research, development, test and evaluation in the following product lines as directed by the Government via Task Orders. These product lines may evolve or change over time:

3.1 Fluid Systems

Research and development is concentrated in advancing the state of the art for the safe and efficient servicing of spaceport vehicles, payload systems, and ground systems with propellants and commodities. This development activity shall include, but not be limited to such focus areas as production, storage, distribution, recovery, disposal, vehicle interfaces, thermal management systems, and fluid safety technologies. Special emphasis will be on cryogenic technologies, but work may include technology development to support other fluid systems such as hypergols, water, and ammonia.

3.2 Spaceport Structures and Materials

Research, development and testing will be performed to ensure robust, safe, and durable structures and materials required by harsh and unique spaceport environments. The development activity shall include, but not be limited to such focus areas as launch structures and mechanisms, materials science and technologies, corrosion science and technologies, electromagnetic physics, and non-destructive evaluation.

3.3 Process and Human Factors Engineering

Research and development will be performed to advance industrial engineering methodologies and tools to evaluate and design spaceport work processes, with attention applied to how humans interact with spaceport systems and processes. The development activity shall include, but not be limited to such focus areas as human factors and ergonomics, task analysis, modeling and simulation, process and operations analysis, life cycle systems engineering, and scheduling and risk assessment technologies.

3.4 Command, Control, and Monitoring

This product line encompasses two associated technology themes. First, research and development will be performed to advance technologies to be incorporated into existing and future ground checkout and launch control systems, along with the technologies required to develop and validate them. The development activity shall include, but not be limited to such focus areas as advanced control system technologies, advanced data processing and distribution, and high reliability software development. The second theme entails the development of sensors, instrumentation, and inspection technologies primarily to increase safety and efficiency for the processing and launch of expendable and reusable launch vehicles and payload systems. Typical issues to be addressed include the detection, characterization, and analysis of defects, hazards, contaminants, and other off-nominal conditions, while assuring nominal performance of systems and their compliance to specifications. The development activity shall include, but not be limited to such focus areas as chemical detection and quantification, field inspection and measurements, smart sensors and acquisition, and spaceport system health technologies.

3.5 Range

Research and development will be performed to reduce the constraints on the processing, launch, and landing of launch vehicles and payloads, while assuring the safety of the public, flight and ground crews, and hardware. The development activity shall include, but not be limited to such focus areas as weather instrumentation, surveillance technologies, tracking and telemetry technologies, decision modeling and analysis, and range safety and traffic management.

4.0 DESIGN ENGINEERING

The Contractor shall provide timely engineering products and services for specific mission requirements of current and future operational spaceport customers (Shuttle, Space Station, Payloads, Space Launch Initiative, and Expendable Launch Vehicles). The Contractor shall also have the capability to provide engineering services for research and technology development customers as well as potentially grow capabilities for future spaceport customers. Products and services are primarily focused on systems and equipment to be used for vehicle processing, payload processing, launch and landing.

The Contractor shall perform engineering development tasks to design, develop, analyze and test spaceport and range related equipment and systems. Tasks include requirements definition, design trade studies, proof of concept breadboards and prototypes, fabrication and assembly, testing, documentation, delivery, sustaining engineering and engineering analysis. The Contractor shall provide skills in specialty areas such as propellants, gases, cryogenics, hypergolics, pneumatics, hydraulics, fiber optics, communication systems, information technology security systems, sensors, instrumentation, navigational aids, hazardous gas detection, intelligent systems, modeling and simulation, robotics, computer hardware, software, networking, control systems, mechanical systems, structures, stress and load analyses, vibroacoustic analyses, thermal analyses, computational fluid dynamics, data analyses, industrial engineering, materials science, electronic design, data acquisition, metrology, and atmospheric science.

Tasks will require the use and knowledge of current state-of-the-art design techniques as well as aerospace design practices that were applied to existing ground systems. It is expected that these established practices will be improved upon using application of new technologies to satisfy future requirements. The Contractor shall perform the following tasks as defined by Task Order:

4.1 Requirements Definition

Requirements definition involves close coordination with the customer for determination of technical, cost, and schedule requirements. This also includes constraints, a list of documents to be produced, and definition of design reviews to be held, along with the products to be provided for each review for approval by the customer.

4.2 Design Trade Studies

Design trade studies are performed to select the most appropriate technical, cost, and schedule approaches to fulfilling the documented requirements. Other factors may include safety and environmental impacts.

4.3 Design

All Ground Support Equipment (GSE) design engineering tasks shall be accomplished in accordance with KSC-DE-512-SM, "Facility, System, and Equipment General Design Requirements," JSC-SW-E-0002, "Space Shuttle Program GSE General Design Requirements," SSP 50004, "Ground Support Equipment Design Requirements, International Space Station," or with other future Program provided design requirements documents as appropriate.

4.4 Design Reviews

Design Reviews shall be conducted in accordance with defined customer and program requirements, and in accordance with KDP-KSC-P-1535 Design Review Process. Depending on customer requirements, the design reviews may be informal periodic design team meetings, formal 30/60/90% reviews, or the even more formal programmatic Preliminary Design Review, Critical Design Review, and Design Certification Review (typically required for critical safety or high-energy systems).

4.5 Proof of Concept Breadboards and Prototypes

Proof of concept breadboards and prototypes are developed for laboratory and field-testing and demonstration of the technical feasibility of components, assemblies, subsystems, and complete products. Documentation of test results include test configuration, equipment used, test methodology, test data, discussion and analysis of test results, and appropriate recommendations and conclusions that may be derived from the testing.

4.6 Fabrication and Assembly

Make or buy decisions will be performed for fabrication of parts, assemblies, subsystems, end item components, unique test fixtures and test articles. Fabricated parts, assemblies, subsystems and end items shall be specified and manufactured to appropriate aerospace standards, as directed in KSC, program, and NASA requirements documents. Unique standards may be specified on individual Task Orders.

4.7 Testing

Test requirements, plans and procedures will be developed to assure all design requirements are met. Testing will be conducted on components, subassemblies and the final assembled product as required. Test reports will document whether critical purchased parts and/or systems meet performance, reliability, and safety requirements for their intended use.

The acceptance test procedure (ATP) of the final assembled product will be provided for Government review and approval, and as-run copies of the ATP with appropriate results, data, and quality control approvals shall be provided as part of the test results documentation.

Where detailed Software Product Assurance / Independent Verification and Validation is required it will be specified by Task Order and reference NASA-STD-2201-93 (Software Assurance Standard) as appropriate.

4.8 Documentation

Products and services will require various levels of documentation as specified in Task Orders. Design drawings and manuals will typically include fabrication and assembly drawings, installation drawings, and operation, troubleshooting, and maintenance documentation and manuals.

Contractor-developed software shall be documented and maintained in accordance with NPD 2820.1 "NASA Software Policies," and controlled in accordance with the data rights provisions of the contract.

4.9 Delivery and Installation

The Contractor may be required to install hardware and/or software systems. Coordination of operational constraints may be required.

Turnover documentation shall be prepared for transfer of operations, maintenance, and sustaining engineering responsibility for completed components or systems to customers including Acceptance Data Packages as defined in Task Orders.

4.10 Sustaining Engineering

Sustaining Engineering of hardware and software (including but not limited to minor design changes and resultant documentation) may be provided to the customer for an agreed-on period of time.

4.11 Engineering Services

Engineering services provided to customers may include, but are not limited to, non-routine expert troubleshooting assistance, problem solving, application support, lab and field testing, engineering analysis/prediction, data analysis, and fault diagnosis.

5.0 LABORATORY OPERATION, MAINTENANCE, AND SERVICES

The Contractor shall manage, operate, and maintain assigned laboratories and facilities as defined by Task Order. Laboratory operation, maintenance, and services, may include operation, maintenance, testing, analysis, minor construction, and modifications within facilities and laboratories. The Contractor shall perform the following functions:

5.1 Laboratory Testing and Analysis Services

The Contractor shall plan, conduct, and provide final reports for testing and analysis services. Services may include, but are not limited to, component qualification, spaceport systems and component testing, and specialized testing (e.g. cryogenics, vibration, electrostatic dissipation, electromagnetic interference, corrosion, thermal-vacuum, metrology, chemical, electrical, mechanical, and physical).

5.2 Laboratory Operation

Contractor personnel shall be adequately trained to assure proper and safe performance and operation of assigned equipment and laboratory functions. The Contractor shall assure only qualified personnel shall operate equipment. The Contractor shall provide management and integration of equipment usage among assigned laboratories to assure

efficient utilization of resources. The Contractor shall ensure laboratory safety per section 2.5.2.

5.3 Laboratory Maintenance

The Contractor shall maintain, troubleshoot, and repair all installation-provided equipment. This includes the custodial care and property management of assigned laboratory equipment, housekeeping, maintaining chemical and other inventories, tracking and scheduling routine maintenance, preparation and/or update of existing Periodic Maintenance Instructions (PMIs), ensuring equipment is in calibration and operational status, and recommending replacement or upgrade of assigned equipment, as required.

The Contractor shall be responsible for development, documentation, and in-service inspection and certification of specific laboratory and facility systems as assigned by Task Order.

The Contractor shall ensure the timely calibration of non-installation provided property assigned by Task Order. This will involve the pick-up, delivery and tracking of all equipment requiring calibration.

The Contractor may use the government furnished Work Control System (WCS), a custom, web-accessible database. KSC's base operations contractor performs the actual calibration of equipment, but the Contractor shall perform or procure calibration of equipment where the base operations contractor lacks adequate capabilities.

The Contractor shall develop and maintain documentation of laboratory policies, training materials, safety materials, equipment performance and usage, in accordance with NPD 1440.6F, NASA Records Management.

The Contractor shall identify, acquire, and manage the necessary laboratory supplies, equipment, and consumables necessary to sustain the general capability intended for the facilities and laboratories, as well as specific items necessary for experimental or test activities within the labs.

6.0 TECHNICAL SERVICES

The Contractor shall provide the following types of services, as defined by individual Task Orders:

6.1 Technical Writing, Multimedia, Illustrating, Engineering Drafting, and Computer Aided Design

The Contractor shall provide turnkey support integrating technical writing/editing and technical illustration in the production of various engineering and technology documents, reports, operation and maintenance manuals, strategic plans and presentations related to contract activities. Multimedia development and support includes graphics and presentation design, minor photographic and video support, and web site design and development.

The Contractor shall prepare or assist in preparing engineering drawings, block diagrams, schematics, printed circuit layouts, parts lists, layouts, and other associated

documentation required for engineering design, studies, criteria, conceptual designs, configuration management, and completed engineering activities. Proficiency with Government provided software tools such as Pro/Engineer and Microstation is essential. All applicable documentation shall be prepared in accordance with GP-435, "Engineering Drawing Practices/Volumes I and II" and KSC-DF-107, "DE Technical Documentation Style Guide."

The Contractor shall prepare Drawing Release Authorizations per KDP-KSC-P-1537, "Document Release Authorization (DRA) Process," for Government signature prior to release. The KSC base operations contractor will provide Engineering Documentation Center services (micro-fiche, reproduction, distribution, repository, etc.).

6.2 Specifications and Standards

The Contractor shall prepare and maintain Engineering Standards, Specifications, and Procedures. This includes a detailed review of NASA Management Instructions (NMIs), NASA Handbooks (NHBs), Kennedy Management Issuances (KMIs), Kennedy Handbooks (KHBs), Kennedy Documented Procedures (KDPs), to assure that working specifications, standards, and procedures are in compliance and providing recommendations for updating when not in compliance. Activities include research, writing, review, editing, typing, and proofreading required to produce a complete document ready for approval and reproduction.

6.3 Project Management

6.3.1 Project Management

All Task Orders will require some level of management, including planning, tracking, and reporting of schedule, cost and technical performance, as defined in section 2.0 and the DRLs.

Task Orders may require a wide range of project management responsibilities, depending on the type of work effort and the amount and type of collaboration with NASA/KSC. Some Task Orders will relate to a task, or collection of tasks, requiring no specific project management. Some Task Orders effort may be identified as official NASA projects to be managed in accordance with NPG 7120.5. Many Task Orders will fall somewhere between these extremes. Specific project management responsibility, if required, will be identified on the Task Order.

Normally, a NASA Project Manager will have overall responsibility for a NASA project, including compliance with NPG 7120.5 requirements, when applicable. Under special circumstances, the Contractor may be assigned Project Management responsibility for a NASA project. The Contractor shall manage these projects in a manner that allows for completion of project objectives within the planned schedule, cost and technical baselines.

The Government may require selected projects to be tracked in a Government maintained project management system.

6.3.2 Project Management Support

The Contractor shall provide project management support including, but not limited to: project engineering, systems engineering, cost estimating, earned value management, metrics, project planning, project formulation, requirements generation, resource allocations, spending plans, budgets, technical approaches or

conceptual designs, technology research, literature searches, administration of strategic planning working groups, project proposals, market research, configuration management, work breakdown structures, scheduling, field surveys, gathering technical information, providing data and logistical support for reviews, special briefings and investigations, risk assessments, design reviews, project documentation, status reporting, cost performance analysis; technical performance analysis, presentations, and development of lessons learned.

6.4 Host Services

The Contractor shall provide host services to visiting researchers such as Government personnel, summer faculty fellows, and other visiting investigators at KSC. This includes: gathering and documenting support requirements; developing and coordinating unique protocols in support of research activities; assuring readiness of laboratories, equipment, and specialized logistics; providing personnel escorts when required by security regulations; and coordinating related activities conducted in KSC facilities.

The Contractor shall provide a method for international visitors to access the Internet exclusive of the KSC private computer network.

The Contractor shall provide technical conference planning and execution.

6.5 Proposal Preparation Services

To support KSC proposal submittals to Agency and external solicitations, the Contractor shall provide the following: expertise with the know-how for producing winning proposals, principal and co-investigators to complement NASA-investigators, technical writing services for production of the final proposal, technical inputs during proposal preparation, and cognizance of release of R&D solicitations, such as NASA Research Announcements, Broad Agency Announcements, Announcement of Opportunities, etc.

6.6 Small Business Innovative Research (SBIR) / Small Business Technology Transfer Research (STTR) Programs Support

The Contractor shall provide program support for the SBIR/STTR Program at KSC such as: documentation and graphics support for producing presentations, success stories, marketing material, and annual reports; data analyst support for producing and analyzing program metrics for cost and schedule; response to program inquiries and tracking of program activity; providing periodic status reports; conducting proposal evaluation training; and providing technical evaluators for proposal reviews.

6.7 Technology Reports

For tasked research and development activities, the Contractor shall provide the required technology reports and enter information in required databases when appropriate, such as Technology Inventory Database Reports, Center Director's Discretionary Fund (CDDF) Annual Reports, KSC Research & Technology Reports, and Spaceport Technology Center Success Stories.

6.8 Technology Commercialization Support

The Contractor shall provide support and participate in the Government Technology Transfer/Commercialization Program. This includes expertise to support the New Technology reporting, evaluation and commercialization processes, and

commercialization training and awareness activities at KSC for all KSC innovator employees as well as expertise to support the formation and management of partnerships related to commercialization and development of new technology. Additionally, the Contractor shall perform the administration, data management and security oversight for the NASA Commercialization Information System, including NASA TechTracS.

**Performance Work Statement
Appendix A**

Data Requirements List

Data Requirement Deliverables

The Contractor shall provide an electronic copy of all data deliverable items to the Contracting Officer and keep a log of data deliverables including publications throughout the life of the contract.

The log shall identify the item, segregated by item type, date delivered, NASA office of primary responsibility, date accepted by NASA, and other applicable data necessary.

The updated log shall be provided with the Contractor's Internal Surveillance Report each quarter (ref. DRD 003)

INSTRUCTIONS FOR COMPLETING CONTRACT
APPLICATION INFORMATION

- A. LINE ITEM NO. Sequentially number line items beginning with number 001.
- B. LINE ITEM TITLE - Enter the title of the data item, as shown in the Statement of Work (SOW), the RFP and/or as directed by the CTM.
- C. OPR (OFFICE OF PRIMARY RESPONSIBILITY) - Enter the organization designated to exercise technical and or administrative control over the data requirement. Use approved organizational code.
- D. TYPE - Enter "Type of Data" code as follows:

CODE	DESCRIPTION
1	Data requiring written approval by the procuring activity prior to implementation into the procurement or development program.
2	Data submitted to the procuring activity for review not later than three weeks prior to project implementation. Data shall be considered approved unless the contractor has been notified of disapproval prior to project implementation.
3	Data submitted to the procuring activity for coordination, surveillance, or information.
4	Data retained by the contractor to be made available to the procuring activity upon request. The contractor shall furnish a list to the procuring activity.
5	Data to be retained by the contractor and reviewed by NASA on request.

- E. INSPECT/ACCEPT - Enter Inspection Acceptance code as follows:

CODE	INSPECTION	ACCEPTANCE	CODE	INSPECTION	ACCEPTANCE
1	Source	Source	4	Certificate of Conformance	(Mandatory)
2	Destination (OPR)	Destination (OPR)	5	Certificate of Conformance	(Optional)
3	Source	Destination (OPR)	6	No Inspection Required	No Acceptance Required

- F. FREQ. OF SUBM. - Enter the frequency of submission code as follows:

CODE	DESCRIPTION	CODE	DESCRIPTION	CODE	DESCRIPTION
AD	AS DIRECTED	PC	PER CONTRACT	PV	PER VEHICLE
AN	ANNUAL	PD	PER FAILURE	QU	QUARTERLY
AR	AS REQUIRED	PE	PER EVENT	RD	AS RELEASED
BE	BIENNIAL	PF	PER FACILITY	RT	ONE TIME & REVISIONS
BM	BIMONTHLY (every two months)	PG	PER PROGRAM	SA	SEMI ANNUALLY
BW	BIWEEKLY (every two weeks)	PI	PER EQUIPMENT END ITEM	SM	SEMI MONTHLY
DA	DAILY	PJ	PER PROJECT	TY	THREE YEAR PERIOD
DD	DEFERRED DELIVERY	PL	PER LAUNCH FLIGHT MISSION	UR	UPON REQUEST
MO	MONTHLY	PS	PER SYSTEM	WK	WEEKLY
OT	ONE TIME	PT	PER TEST		

- G. INITIAL SUBMITTAL - Enter date of initial submittal as follows: Month, Day, Year. If calendar date is not scheduled, enter number of days preceding, or following, event to which the data requirement is related (e.g., 90 days prior to launch). Amplify in REMARKS, Item J, if necessary.
- H. AS OF DATE - For "Onetime Only" submittals, enter date by month/day/year. For recurring submittals, enter number coding (e.g., 30/10, 90/10, 15/5, etc.). The first digit(s) indicate the number of calendar days from the reporting period's (Block F) start to the data preparation cut off. The second digit(s), after the slash, indicate the number of calendar days from the cut off to the submittal date. Example: If Block F were "MO" and Block H were "30/10", the data would include the entire month and would be submitted within 10 days thereafter.
- J. REMARKS: Enter in this space:
 - a. Minor exceptions to the DRD.
 - b. Stipulation of specific forms when multiple forms are authorized on the DRD.
 - c. The paragraph, page, etc., in an existing contract where the data requirement is specified. (This data may be removed at final approval.)
 - d. Additional submittal information, if necessary.
- K. DISTRIBUTION - Enter organizational symbol, number of copies, and type of copy code(s) (in parenthesis) required for each office. Type of copy codes are as follows:

CODE	DEFINITION	CODE	DEFINITION
A	Regular	C	Microfilm, Aperture Cards
B	Reproducible	D	Other, (Explain in remarks, Item J).

EXAMPLE ENTRIES: IS-PRO-2 (1A) = One regular copy. IS-PRO-3 (5A, 1B) = Five Regular copies, One Reproducible copy.
Enter the total number of copies by type in the space provided

INSTRUCTIONS FOR COMPLETING DATA
REQUIREMENT DESCRIPTION

- GENERAL - The Data Requirement Description (DRD) will be prepared to describe the content and provide preparation information for data required in support of NASA programs.
- 1. TITLE - Enter the title or type of document required. The first word of the title should be a principal noun which best established the basic concept of the data. Subsequent words should be appropriate modifiers.
Examples: Plan, Project Development (SIVB)
Specification, Test (GSE)
Report, Quarterly Progress
Proposal, Engineering change (ECP)
 - 2. NUMBER - Enter the appropriate number assigned to the DRD. This number will identify the appropriate data category.
 - 3. USE - Enter a synopsis of the use of the document, stating reason for the requirement.
 - 4. DATE - Enter date of preparation.
 - 5. ORGANIZATION - Identify the installation preparing the DRD.
 - 6. REFERENCES - List applicable documents by number, (NASA Management Manual, Mil Specifications, Federal Standards, NASA Procurement Regulation, etc.) to which the preparing office (e.g., NASA installations, contractors, etc.) may refer for additional information concerning the data requirement.
 - 7. INTERRELATIONSHIP - Enter all affected approved DRDs within the scope of the program when the DRD under preparation creates a significant impact or interface relationship with existing DRDs. Include a brief narrative of the impact or relationship created and a statement that the new DRD does not cause a conflict with other DRDs.
 - 8. PREPARATION INFORMATION - Provide ample information for preparation of the data required by the data requirements description; include all necessary details of preparation to satisfy the originator's formal requirements.

DATA REQUIREMENTS LIST

DRL NUMBER:	REVISION
PROJECT/SYSTEM University-affiliated Spaceport Technology Development Contract	
CONTRACT NUMBER	PREPARATION DATE 6/21/02
CONTRACTOR	TECHNICAL APPROVAL
ATTACHMENT NUMBER	EXHIBIT NUMBER

ITEM NO.	TITLE	CHANGE STATUS
1	Emergency Preparedness Plan	
2	Internal Surveillance Plan	
3	Internal Surveillance Report	
4	Task Order Plan	
5	Contractor Financial Management Report (NASA Form 533 Series)	
6	Management Plan	
7	Safety and Health Plan	
8	Information Technology (IT) Security Plan	
9	Security Plan	
10	Risk Management Plan	
11	Technology Outreach Plan	
12	Quality Management System Plan	
13	Motor Vehicle Utilization Plan	
14	Technology Transfer Plan	
15	Export Control Plan	
16	Information Technology (IT) Plan	
17	Equal Employment Opportunity Report	
18	Technology Transfer Report	
19	Safety Statistics Report	
20	Pressure Vessel/System Certification Report	
21	Government-Industry Data Exchange Program (GIDEP) Alert System Report	
22	Headcount Report	

DATA REQUIREMENT

CONTRACT APPLICATION INFORMATION FOR DRL USTDC

Page 1 of 1

A. ITEM NO.
001

B. LINE ITEM TITLE:

Emergency Preparedness Plan

C. OPR. TA-E2	D. TYPE 1	E. INSPECT/ ACCEPT 2	F. FREQ. RT	G. INITIAL SUB. See Block J	H. AS OF DATE See Block J
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J. REMARKS:

The Emergency Preparedness Plan shall be submitted for approval by the Contracting Officer within 60 days after contract start.

K. DISTRIBUTION

TA-E2 (1) YA-F (1)
OP-OS (1)
YA-A (CTM) (1)
YA-B (1)

TOTALS	
NO.	TYPE
5	A

DATA REQUIREMENT DESCRIPTION

1. TITLE Emergency Preparedness Plan	2. NUMBER
3. USE To provide the method for the establishment, development, and maintenance of the effective capability to cope with emergencies or disasters as identified in JHB 2000.	4. DATE
	5. ORGANIZATION KSC/YA
7. INTERRELATIONSHIP	6. REFERENCES JHB 2000

8. PREPARATION INFORMATION

Prepare and maintain a current Emergency Preparedness Plan for the protection of personnel and facilities in the assigned areas of operation.

- A. The Plan shall provide:
1. Emergency plans and procedures (including hurricanes);
 2. Methods to be used for indoctrination and training of Contractor and support personnel for optimum emergency readiness.
 3. Procedures for prompt return of systems to full operational condition following an emergency.
 4. Effective emergency operational performance.
 5. Description of how the Plans will be implemented.
 6. Identification of a Hurricane Coordinator.

B. The format of the Plan shall be similar to that in JHB 2000.

DATA REQUIREMENT

CONTRACT APPLICATION INFORMATION FOR DRL USTDC

Page 1 of 2

A. ITEM NO.
002

B. LINE ITEM TITLE:

Internal Surveillance Plan

C. OPR.	D. TYPE	E. INSPECT/	F. FREQ.	G. INITIAL SUB.	H. AS OF DATE
YA-A	1	3	AR	See Block J	See Block J

J. REMARKS:

The Contractor shall submit a preliminary Internal Surveillance Plan with its proposal. The final, detailed plan shall be submitted for approval by the Contracting Officer within 30 days after contract start. The plan shall be maintained throughout the life of the contract.

K. DISTRIBUTION

YA-A (CTM) (1) YA-D (1)
 OP-OS (CO) (1) YA-E (1)
 YA-B (1) YA-F (1)
 YA-C (1)

TOTALS	
NO.	TYPE
7	A

DATA REQUIREMENT DESCRIPTION

1. TITLE Internal Surveillance Plan	2. NUMBER
3. USE The plan describes the integrated method of internal surveillance, including proposed internal processes, controls, metrics, and procedures that it considers critical to assure technical, managerial, cost control, and schedule performance.	4. DATE
	5. ORGANIZATION KSC/YA
7. INTERRELATIONSHIP DRD003	6. REFERENCES

8. PREPARATION INFORMATION

In accordance with the Draft Performance Surveillance and Award Fee Plan, identify and describe the key performance indicators (metrics) and associated standards to be used internally to improve the quality of products and services provided, and also by the Government to periodically assess contract performance, in each of the following critical areas:

- Safety, Reliability and Quality Assurance
- Task Order Performance
- Milestone performance
- Cost Performance / Control
- Technology Reporting
- University affiliation participation
- Technology Outreach

(See continuation sheet)

Block 8. Preparation Information Continued.

Describe how metrics, both contract level and those required by specific Task Orders, will be collected and validated. Describe how the metrics data will be reported to the Government, or otherwise available for NASA review and insight. Discuss your approach to surveillance and/or measurement of other significant areas of contractor performance, such as, but not limited to:

- Business Management Systems
- Customer Satisfaction
- Resource Management
- Records Management
- Reporting / Deliverables
- Environmental
- Continuous Improvement
- ISO9001:2000 compliance
- VPP compliance
- Equal Opportunity
- Quality & Reliability
- Risk Management
- Labor Relations
- Technology Awards
- Commercialization
- Effectiveness of Outreach program
- Procurement Performance Metrics
- Small Business Subcontracting
- Property and Supply Management
- Customer Complaints
- Housekeeping

In accordance with the Draft Performance Surveillance and Award Fee Plan, for each contract level metric proposed, define a measurable standard of performance (SOP) that reflects exemplary performance (deserving of a rating of 95), and an Acceptable Quality Level (AQL) that reflects satisfactory performance (deserving a rating of 65).

When standards of performance and/or acceptable quality levels cannot be defined adequately, trend metrics may also be proposed to provide insight into performance. If an area of performance is not readily quantifiable, or if the effort and/or cost of measurement cannot be justified other, more qualitative surveillance techniques may be proposed.

Describe your approach to providing and presenting a Internal Surveillance Report (Self Assessment) of contractor performance per the PWS and DRD003.

Note: The Performance Surveillance and Award Fee Plan will be updated after contract award to reflect the agreed metrics and standards.

DATA REQUIREMENT

CONTRACT APPLICATION INFORMATION FOR DRL USTDC

Page 1 of 1

A. ITEM NO.
003

B. LINE ITEM TITLE:

Internal Surveillance Report

C. OPR. YA-A	D. TYPE 1	E. INSPECT/ ACCEPT 3	F. FREQ. QA/AD	G. INITIAL SUB. See Block J	H. AS OF DATE See Block J
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J. REMARKS:

The Internal Surveillance Report shall be submitted within 15 days after each quarter.

K. DISTRIBUTION

YA-A (CTM) (1)	YA-D (1)	GG-C-A2 (1)
OP-OS (1)	YA-E (1)	
YA-B (1)	YA-F (1)	
YA-C (1)	YA (1)	

TOTALS	
NO.	TYPE
9	A

DATA REQUIREMENT DESCRIPTION

1. TITLE Internal Surveillance Report	2. NUMBER
3. USE To report the Contractor's metrics data and self assessment to NASA for evaluation.	4. DATE
	5. ORGANIZATION KSC/YA
7. INTERRELATIONSHIP DRD002	6. REFERENCES

8. PREPARATION INFORMATION

The report shall provide a summary of all metric data required by the Performance Surveillance and Award Fee Plan and by individual Task Orders. The report shall include significant accomplishments on Task Orders, Outreach Program and Work for Others. The report shall also address issues and concerns. Data shall include all available trend history from all previous reporting periods. Metric data related to a specific Task Orders shall include the title, TO number, and Technical Contact of the applicable Task Order.

The report shall also include the following data on a monthly basis, summarized quarterly and yearly:

- Number of task orders and revisions issued;
- Contract value;
- Contract funding level;
- Total contractor and sub-contractor headcounts, both planned and actual;
- Number of new hires;
- Number of losses (resignations, retirements, etc.);
- Amount of paid and unpaid overtime.

The report shall also provide the status of each non-reimbursable commitment, as specified in clause H.21 ASRC Team Investment Profile.

DATA REQUIREMENT

CONTRACT APPLICATION INFORMATION FOR DRL <u>USTDC</u>	Page 1 of 1	A. ITEM NO. 004
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B. LINE ITEM TITLE:

Task Order Plan

C. OPR. YA-A	D. TYPE 1	E. INSPECT/ ACCEPT 2	F. FREQ. AR	G. INITIAL SUB. See Block J	H. AS OF DATE See Block J
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J. REMARKS:

Block G: Task Order Plans should be submitted within 15 working days after the Contractor's receipt of a request for a Task Order Plan from the Contracting Officer.

K. DISTRIBUTION YA-A (CTM) (1) OP-OS (1) Task Order Manager (of the applicable Task Order) (1)	TOTALS	
	NO.	TYPE
	3	A
	*	D

DATA REQUIREMENT DESCRIPTION

1. TITLE Task Order Plan	2. NUMBER
3. USE To describe the Contractor's plan for implementation of the Task Order. Forms the basis of agreement of cost targets, standards, metrics, milestones, etc.	4. DATE
	5. ORGANIZATION KSC/YA
	6. REFERENCES
7. INTERRELATIONSHIP	

8. PREPARATION INFORMATION
The Contractor shall submit a plan describing the proposed approach for performing each Task Order. The following information shall be included:

- 1 Title and number of applicable Task Order.
- 2 Discussion of the technical approach for performing the work, including approaches for assessing the state of the art and avoiding duplication of prior research.
- 3 Description of skill mix requirements, including identification of university-affiliate resources.
- 4 Recommended standards and metrics for use in monitoring and evaluating the Contractor's performance.
- 5 Risk assessments of the ability to accomplish the Task Order (technical goals, cost, schedule).
- 6 Proposed schedule including estimated date of work commencement and major milestones and deliverable dates. Include multiple year schedule, as required for completion of the task / project. For mission support or infrastructure type Task Orders, provide schedule only as necessary.
- 7 Direct Labor hours and burdened labor costs for both prime and sub-contractors, by applicable labor classification, estimated to complete the work. *
- 8 Fee applied to labor costs. *
- 9 Subtotal of labor costs and fees. *
- 10 Travel, training, and material estimates and other indirect costs required to complete the work. *
- 11 Total costs. *
- 12 Other pertinent information.

* Note: Provide current government fiscal year cost estimates in detail, on a monthly basis and total, to establish current year cost targets. Out year data may be summary level, on a yearly basis.

DATA REQUIREMENT

CONTRACT APPLICATION INFORMATION FOR DRL USTDC

Page 1 of 4

A. ITEM NO.
005

B. LINE ITEM TITLE:

Contractor Financial Management Report (NASA Form 533 M)

C. OPR. GG-C-A2	D. TYPE 3	E. INSPECT/ ACCEPT 6	F. FREQ. MO	G. INITIAL SUB. See Block J	H. AS OF DATE See Block J
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J. REMARKS:

Initial submission of NASA Form 533 M shall be no later than 30 working days after incurring costs. Subsequent NF 533 M reports shall be furnished not later than 10 working days following the close of the Contractor's monthly accounting period.

K. DISTRIBUTION

YA-A (CTM) (1) DCAA (1)
GG-B-B (1)
GG-C-A2 (1)
OP-OS (1)

TOTALS	
NO.	TYPE
5	A

DATA REQUIREMENT DESCRIPTION

1. TITLE NASA Contractor Financial Management Report (NASA Form 533 M)	2. NUMBER
3. USE To project costs and hours for a program/project in order to ensure that dollar and labor resources realistically support the schedule, evaluate contractor cost performance, plan and monitor resources for a program/project, and is the basis for recording cost in the NASA accounting system.	4. DATE
	5. ORGANIZATION KSC/YA
7. INTERRELATIONSHIP	6. REFERENCES NPD 9501.1G NPG 9501.2D

8. PREPARATION INFORMATION

- A. Prepare NASA Form 533 M per instructions referenced above (NPG 9501.2D). Refer to sample 533 reporting format for desired report periods and cost elements to be presented. In addition, the contractor will be required to report hours and costs for both actual and planned elements for the government fiscal year to date.
- B. The NF 533 Q reporting has been waived by the NASA Contracting Officer, with concurrence by the Center Chief Financial Officer.
- C. NF 533 M reporting must begin not later than 30 days after incurrence of cost. Subsequent NF 533 M reports shall be furnished not later than 10 working days following the close of the Contractor's monthly accounting period.
- D. Adjustments to prior period's costs and/or workforce, recorded during the reporting period, will be included in the reporting month's (i.e., last closed accounting period) actual cost and cumulative cost columns of the applicable report. The adjustments shall be itemized/explained in the narrative part of the report.

(See continuation sheet)

DRD005 – Contractor Financial Management Report CONTINUATION SHEET**Page 2 of 4**

Block 8. Preparation Information Continued.

- E. The Contractor shall additionally provide data, exclusive of narrative remarks, on electronic medium. The Contractor and NASA will jointly pursue the use of available technologies and transmission capabilities to facilitate electronic reporting, and will endeavor to provide electronic reporting earlier than the standard due dates. The Contractor shall utilize and maintain the existing NASA owned, Contractor Operated accounting system (Costpoint), and the 533 Generator and Accrual systems software that produces 533 reports. Compatibility must be maintained with the FoxPro Accrual program utilized by the NASA Resources Management Office (RMO).
- F. The Contractor shall furnish with the initial NF 533 M, the Contractor's accounting calendar that lists the accounting periods, number of work days included in each period, and all holidays. All subsequent revisions shall be provided at the time of the change. At a minimum, an updated accounting calendar will be provided at the beginning of each government fiscal year.
- G. Data elements listed in this DRD will be reported under the following categories:
1. Total Contract Summary
 2. Indirect Cost Summary
 3. Task Order Summary by Appropriation, Numbers and Nomenclature
 - a. Program Summaries
 - b. Task Order Detail Summaries
 - c. Closed Task Order List
 - d. Summary of Closed Task Orders
 4. Task Order Numbers and Titles
- H. Contractors are required to indicate full incurred costs on the NF 533 Report. They should also show the amount of discounts offered to and taken by NASA. At the end of each fiscal year, upon submittal of final indirect cost rates, provisional billing rates shall be changed to the proposed final rates. The Contractor shall include all adjustments in the current month actual costs column on the NF 533 M, itemizing adjustments in an addendum to the NF 533 M.
- I. Cost figures will be reported to the nearest whole dollar, and equivalent headcount will be reported to the nearest tenth. Hours will be reported to the nearest whole hour.
- J. Subcontractors will provide 533 reports to the prime Contractor in the same format as required by this DRD for the applicable data elements and categories. The prime Contractor shall ensure that subcontract data are available in sufficient time for inclusion in the prime Contractors' NF 533 report for the same reporting period. The prime Contract may call for copies of subcontractor reports to be submitted to NASA.
- K. Indirect costs (such as Non-Task Order related ODC) shall be allocated to the applicable Task Orders based on acceptable accounting practices and statistical techniques. A complete breakdown of all elements of indirect cost and allocation methods will be required. Specific percentages and distributions must be approved by NASA prior to implementation.
- L. Each NF 533 M shall contain a next month estimate for all anticipated hours and costs.
- M. The Contractor shall provide with the NF 533 M, a variance analysis by amount and percent for each element of cost, of the difference between the estimate for the month (made in the previous month) and the actual for the month being reported in the current NF 533 M. This variance analysis will be required for the Contract Summary, as well as for each Appropriation Summary. In addition, the Contractor shall provide a narrative summary of each data element and explain the reason(s) for the variance.

For any indirect rates (such as overhead, G&A, etc.) charged to the contract, the Contractor is to identify in the narrative to the NF 533 M the provisional billing rates and cumulative actual rates for the contract.

DRD005 - Contractor Financial Management Report CONTINUATION SHEET

Page 3 of 4

Block 8. Preparation Information Continued:

N. Data elements to be reported should include the following:

CONTRACTOR FINANCIAL MANAGEMENT REPORTS - NASA FORM 533 M**DATA ELEMENTS****DIRECT LABOR HOURS**

- Straight Time Productive Hours
- Overtime Productive Hours
- Overtime Productive Hours Not Paid
- Subcontract Productive Hours
 - Subtotal Productive Hours
- Non-Productive Hours
- TOTAL DIRECT HOURS**

DIRECT LABOR COST

- Straight Time Productive Cost
- Overtime Productive Cost
 - Subtotal Direct Productive Cost
- Non-Productive Cost
- Fringe Benefits/Payroll Adds
 - Subtotal Non-Productive
- TOTAL DIRECT LABOR COST**

INDIRECT/OVERHEAD COST**SUBCONTRACTS****OTHER DIRECT COSTS (Sub grouped by Task Order and Non-Task Order Related):**

- Material/Equipment
- Maintenance
- Motor Vehicle Expense
- Training
- Travel
- Relocation
- Recruitment
- Supplies
- Other ODC (detail elements in NF 533 M narrative)

TOTAL OTHER DIRECT COST**TOTAL COST BEFORE G&A****G&A****COST OF FACILITIES CAPITAL****TOTAL COST****AWARD FEE****INCENTIVE FEE****TOTAL CONTRACT COST AND FEE**

DRD005 – Contractor Financial Management Report CONTINUATION SHEET Page 4 of 4

Block 8. Preparation Information Continued:

MANAGEMENT INFORMATION ITEMS

- Prompt Payment Discounts
- Unfilled Orders
- Termination Liability
- Equivalent Direct Headcount
- Equivalent Indirect Headcount
- Equivalent Population
- Equivalent Overtime Headcount
- Overtime Rate Percent
- Equivalent Subcontractor Headcount
- Contract Total Physical (Actual) Headcount

O. **SELECTED DATA ELEMENT DEFINITIONS** Elements of cost are defined in general in NPG 9501.2D. This Center feels that additional explanations are necessary for the items listed below, in order to ensure clarity.

1. **Straight Time Hours** – Those hours, exclusive of non-productive hours, which are worked by direct labor personnel. No paid overtime hours are to be reported in this category.
2. **Overtime Hours** - Those premium hours incurred by direct labor personnel. Non-paid overtime hours are not to be reported in this category.
3. **Non-Productive Hours** - Those hours used for vacation, sick leave, holiday, and other non-work periods. This only includes those hours for which the direct labor personnel are paid.
4. **Equivalent Direct Headcount** - The average number of personnel directly performing a specific task or contract (does not include indirect personnel), for a given length of time, and is usually expressed as a monthly average. It is further defined as:

$$\text{Direct Headcount} = \frac{\text{Straight Time Direct Hours} + \text{Non-Productive Hours for Direct Employee}}{8 \times (\text{number of Operating Days and Holidays})}$$

Direct Headcount = $\frac{\text{Straight Time Direct Hours} + \text{Non-Productive Hours for Direct Employee}}{8 \times (\text{number of Operating Days and Holidays})}$

5. **Equivalent Indirect Headcount** - The average number of indirect personnel. Population less direct headcount.
6. **Equivalent Population** - The average number of contractor personnel located at KSC during the month. The total of Direct and Indirect Headcount. It is further defined as:

$$\frac{\text{Straight Time Direct Hours} + \text{Non-Productive Hours} + \text{Indirect Hours}}{8 \times (\text{number of Operating Days and Holidays})}$$

7. **Equivalent Overtime Headcount** –

$$\text{Equivalent Overtime Headcount} = \frac{\text{Total Paid Overtime Hours Expended}}{8 \times (\text{number of Operating Days \& Holidays})}$$

8. **Overtime Rate Percent** -

$$\text{Overtime Rate} = \frac{\text{Overtime Hours Expended}}{\text{Straight Time Hours} + \text{Non-Productive}}$$

DATA REQUIREMENT

CONTRACT APPLICATION INFORMATION FOR DRL USTDC

Page 1 of 1

A. ITEM NO.
006

B. LINE ITEM TITLE:

Management Plan

C. OPR. YA-A	D. TYPE 1	E. INSPECT/ ACCEPT 2	F. FREQ. RT/AD	G. INITIAL SUB. See Block J	H. AS OF DATE See Block J
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J. REMARKS:

The Contractor shall submit its detailed Management Plan with its proposal. The plan shall be maintained throughout the life of the contract.

Subsequent submissions or updates will be submitted per the request of the OPR.

K. DISTRIBUTION

YA (1)	YA-D (1)	OP-OS (1)
YA-A (CTM) (1)	YA-E (1)	
YA-B (1)	YA-F (1)	
YA-C (1)	QA (1)	

TOTALS	
NO.	TYPE
9	A

DATA REQUIREMENT DESCRIPTION

1. TITLE Management Plan	2. NUMBER
3. USE The document shall detail the Contractor approach to implementing the detailed management activities.	4. DATE
	5. ORGANIZATION KSC/YA
7. INTERRELATIONSHIP DRD012, DRD010, DRD007, DRD001	6. REFERENCES

8. PREPARATION INFORMATION

The Management Plan shall include sufficient information to address the Contractor's approach to organization, planning, scheduling, implementing, staffing, subcontracting, application of continuous improvement principles, risk management, earned value management, and all PWS activities. The Plan shall address how the Contractor will interface with the multiple government and contractor organizations which will be required.

DATA REQUIREMENT

CONTRACT APPLICATION INFORMATION FOR DRL USTDC

Page 1 of 1

A. ITEM NO.
007

B. LINE ITEM TITLE:

Safety and Health Plan

C. OPR. YA-B	D. TYPE 1	E. INSPECT/ ACCEPT 2	F. FREQ. RT / AR	G. INITIAL SUB. See Block J	H. AS OF DATE See Block J
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J. REMARKS:

The Contractor shall submit its detailed Safety and Health Plan with its proposal. The plan shall be maintained throughout the life of the contract.

K. DISTRIBUTION

- YA-B (1)
- QA-C (1)
- YA-A (CTM) (1)
- OP-OS (1)
- TA-C1 (1)

TOTALS	
NO.	TYPE
5	A

DATA REQUIREMENT DESCRIPTION

1. TITLE Safety and Health Plan	2. NUMBER
3. USE The document defines the Contractor's safety and work health programs. It addresses activities and related controls for the protection of personnel, equipment, and supplies and compliance with the NASA and KSC Safety programs.	4. DATE
	5. ORGANIZATION KSC /YA
7. INTERRELATIONSHIP DRD 019	6. REFERENCES NPG 8715.3

8. PREPARATION INFORMATION

1. The Safety plan defines a comprehensive safety and health program in accordance with the applicable safety and health policy documents (i.e., NPG 8715.3, Appendix H).
2. The Safety and Health Plan shall be submitted with the Contractor's proposal.
3. The format of this plan shall be at the discretion of the contractor.
4. The Safety Plan shall be maintained current.

DATA REQUIREMENT

CONTRACT APPLICATION INFORMATION FOR DRL <u>USTDC</u>	Page 1 of 1	A. ITEM NO. 008
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B. LINE ITEM TITLE:

IT Security Plan

C. OPR.	D. TYPE	E. INSPECT/ ACCEPT	F. FREQ.	G. INITIAL SUB.	H. AS OF DATE
YA-D6	1	6	RT/AD	See Block J	See Block J

J. REMARKS:

Within 30 calendar days after contract award, the Contractor shall submit a draft IT Security Plan for all IT systems sustained by the Contractor. The NASA IT Security Manager prior to acceptance will review the initial submittal, and the Contractor is required to incorporate review comments as applicable.

K. DISTRIBUTION		TOTALS	
YA-A (3)	TA-1 (1)	NO.	TYPE
TA-C2 (1)	OP-OS (1)	8	A
YA-E5 (1)			
YA-D6 (IRM)(1)			

DATA REQUIREMENT DESCRIPTION

1. TITLE IT Security Plan	2. NUMBER
3. USE To document the Contractor's specific implementation of NPG 2810.1 for all contractor sustained IT systems. Proposed waivers shall be submitted with the plan for Government approval.	4. DATE
	5. ORGANIZATION KSC/YA
7. INTERRELATIONSHIP	6. REFERENCES NPD 2810.1

8. PREPARATION INFORMATION
Prepare an Information Technology Security Plan in accordance with NPG 2810.1 and submit to the YA Information Resources Manager (IRM) as required to maintain current information on IT requirements and changes.

DATA REQUIREMENT

CONTRACT APPLICATION INFORMATION FOR DRL USTDC

Page 1 of 1

A. ITEM NO.
009

B. LINE ITEM TITLE:

Security Plan

C. OPR. TA-E2	D. TYPE 1	E. INSPECT/ ACCEPT 2	F. FREQ. RT/AD	G. INITIAL SUB. See Block J	H. AS OF DATE See Block J
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J. REMARKS:

A preliminary plan shall be submitted two weeks after the contract start and a final plan shall be submitted for approval within 90 days of the contract start.

K. DISTRIBUTION

TA-E2 (1)
YA-A (CTM) (1)

TOTALS	
NO.	TYPE
2	A

DATA REQUIREMENT DESCRIPTION

1. TITLE Security Plan	2. NUMBER
3. USE Document shall detail Contractor approach to implementing NASA KSC security policies and directives.	4. DATE
	5. ORGANIZATION KSC/YA
7. INTERRELATIONSHIP	6. REFERENCES KHB 1610.1C

8. PREPARATION INFORMATION

The Contractor Security Plan shall address the Contractor approach to implementing KSC policy and directive documents. Additionally, other Contractor security initiatives and innovative operating approaches or procedures shall be included.

DATA REQUIREMENT

CONTRACT APPLICATION INFORMATION FOR DRL USTDC

Page 1 of 1

A. ITEM NO.
010

B. LINE ITEM TITLE:

Risk Management Plan

C. OPR. YA-B	D. TYPE 1	E. INSPECT/ ACCEPT 3	F. FREQ. RT	G. INITIAL SUB. See Block J	H. AS OF DATE See Block J
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J. REMARKS:

The Contractor shall submit its detailed Risk Management Plan with its proposal. The plan shall be maintained throughout the life of the contract.

K. DISTRIBUTION

YA-B (1)
YA-A (CTM) (1)
OP-OS (1)
QA-C (1)

TOTALS	
NO.	TYPE
4	A

DATA REQUIREMENT DESCRIPTION

1. TITLE Risk Management Plan	2. NUMBER
3. USE To provide framework for contract risk management activities, including methodologies, processes, and tools to ensure effective risk identification/management.	4. DATE
	5. ORGANIZATION KSC/YA
7. INTERRELATIONSHIP	6. REFERENCES NPG 7120.5A NPG 8000.4

8. PREPARATION INFORMATION

Prepare and maintain a current Risk Management Plan that delineates the tailored processes, methods, and tools for identifying/managing project risks to minimize performance issues.

The plan shall, at a minimum, provide the following elements:

- a. Introduction/Overview of Risk Management process.
- b. Project organization, roles, and responsibilities.
- c. Risk Management activities and practices in detail, including risk identification processes and procedures, analysis/prioritization procedures, procedures to progress from risk identification through risk mitigation, methods to measure the success of risk mitigation efforts, and procedures regarding how the Contractor will provide status to NASA of ongoing risk mitigation efforts.
- d. Budget, resources, and milestones (e.g., project risk reviews, quarterly risk management reviews) for risk management activities and risk mitigation.
- e. Risk management documentation (e.g., procedures for documenting risks, products provided [risk sheets, prioritized risk lists, risk tracking database, milestone review risk charts]).
- f. Method to be used to train the Contractor and support personnel in risk identification and mitigation.
- g. Risk Management assumptions, technical considerations, constraints, and de-scope options.

DATA REQUIREMENT

CONTRACT APPLICATION INFORMATION FOR DRL <u>USTDC</u>					Page 1 of 1	A. ITEM NO. 011
B. LINE ITEM TITLE: Technology Outreach Plan						
C. OPR. YA-C	D. TYPE 1	E. INSPECT/ ACCEPT 2	F. FREQ. AN	G. INITIAL SUB. See Block J	H. AS OF DATE 365/15	
J. REMARKS: Preliminary Plan with proposal. The Contractor shall submit the Technology Outreach Plan in final form within 45 calendar days after start of contract. Progress reports shall be included quarterly in the Internal Surveillance Report (Item No. 003).						
K. DISTRIBUTION YA-A (CTM) (1) YA-C (1) OP-OS (1) XA (1)						TOTALS NO. TYPE 4 A
DATA REQUIREMENT DESCRIPTION						
1. TITLE Technology Outreach Plan					2. NUMBER	
3. USE Document the Contractor's technology outreach approach for seeking and obtaining work (including Work for Others) consistent with or complementary to the activities of the STC					4. DATE	
					5. ORGANIZATION KSC/YA	
7. INTERRELATIONSHIP DRD003					6. REFERENCES	
8. PREPARATION INFORMATION The Technology Outreach Plan shall provide the approach for seeking and obtaining work (including Work for Others) consistent with or complementary to the activities of the STC. The Technology Outreach Plan shall describe the development and implementation of a vigorous technology outreach program that will attract new research and development (R&D) work to NASA KSC, with primary focus on applicability to the NASA mission and the attraction of partners for jointly funded, collaborative R&D and testing. The plan, as a minimum, shall address the following: <ul style="list-style-type: none"> • Indicate which laboratories or facilities might be utilized to support work for others and describe the anticipated marketability of each. • Provide supporting rationale for the uniqueness of the capabilities. • Describe Outreach processes and procedures for identification and marketing of unique capabilities. • Establish a method or process to set and achieve annual technology outreach goals. • Indicate which scientific/technical journals and conferences/symposia are targeted for dissemination of KSC technical accomplishments and capabilities. Contractor format is acceptable.						

DATA REQUIREMENT

CONTRACT APPLICATION INFORMATION FOR DRL <u>USTDC</u>	Page 1 of 1	A. ITEM NO. 012
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B. LINE ITEM TITLE:

Quality Management System Plan

C. OPR. YA-B	D. TYPE 3	E. INSPECT/ ACCEPT 6	F. FREQ. RT / AR	G. INITIAL SUB. See Block J	H. AS OF DATE See Block J
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J. REMARKS:

The Contractor shall submit its detailed Quality Management System plan 30 days after contract start. The plan shall be maintained throughout the life of the contract.

K. DISTRIBUTION		TOTALS	
YA-B (1)	QA-D (1)	NO.	TYPE
YA-A (CTM) (1)		4	A
OP-OS (1)			

DATA REQUIREMENT DESCRIPTION

1. TITLE Quality Management System Plan	2. NUMBER
3. USE This plan defines the Contractor's Quality Management System programs. It addresses activities performed within this contract and in compliance with the NASA and KSC Quality Assurance programs and ISO 9001:2000.	4. DATE
	5. ORGANIZATION KSC /YA
7. INTERRELATIONSHIP	6. REFERENCES ISO 9001:2000 KHB 5310.1

8. PREPARATION INFORMATION
1. The Quality Management System Plan shall serve as the Master planning and control document. The plan shall describe the Contractor's approach describing "what" will be done and method of management of each task in terms of when, by which organization, and be in a format that identifies contractual requirements.
 2. The plan shall show the relationship of individuals managing major elements of the PWS. All elements of performance shall be addressed as defined in ISO 9001:2000, Quality Management Standard.
 3. The Quality Management Plan shall contain the Contractor's methodology of executing his program requirements, approach, and criteria.
 4. As an attachment to the Quality Management Plan, the Contractor shall list his implementing procedures by element.
 5. The Quality plan shall meet the intent of KHB 5310.1 and ISO 9001:2000.

DATA REQUIREMENT

CONTRACT APPLICATION INFORMATION FOR DRL <u>USTDC</u>	Page 1 of 1	A. ITEM NO. 013
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B. LINE ITEM TITLE:

Motor Vehicle Utilization Plan

C. OPR. YA-A	D. TYPE 1	E. INSPECT/ ACCEPT 2	F. FREQ. SA/AD	G. INITIAL SUB. See Block J	H. AS OF DATE 182/10
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J. REMARKS:

The initial plan shall be submitted no later than 30 calendar days after contract award. The NASA Transportation Officer (NTO) will review the submittal prior to acceptance. The plan shall be updated every six months to cover all changes necessary including continuous justification for use of vehicles and a 24 month forecast for motor vehicle requirements.

K. DISTRIBUTION YA-A (CTM) (1) YA-A-A (1) OP-OS (1) TA-E1 (NTO) (1)	TOTALS	
	NO.	TYPE
	4	A

DATA REQUIREMENT DESCRIPTION

1. TITLE Motor Vehicle Utilization Plan	2. NUMBER
3. USE To ensure management of motor vehicles needed to properly perform the requirements of the contract.	4. DATE
	5. ORGANIZATION KSC/YA
7. INTERRELATIONSHIP	6. REFERENCES KHB 6000.1 E

8. PREPARATION INFORMATION

The Motor Vehicle Utilization Plan shall fully describe the management techniques which assure that the proper number of vehicles are continuously justified, that operators are fully aware of "official use only" restrictions, and are properly licensed. The plan shall provide evidence that the Contractor maintains motor vehicle insurance covering bodily injury and property damage, with limits of liability as required by NFS 1852.228-75, Minimum Insurance Coverage. The plan shall detail the periodic checks (by the Contractor, GSA or other Vehicle Provider, and NASA) to ensure that the vehicles are being used exclusively for this contract. Operator discipline for improper use of vehicles shall be described. The plan shall also address operator requirements, processes for obtaining preventative maintenance, processes for accident reporting, and list the type / quantity of vehicles approved by the NASA Transportation Office for use on the contract.

The Contractor shall provide a copy of this plan to all its employees that may use the vehicles and provide continuous awareness of its requirements to its personnel through e-mail, company newsletter announcements, safety meetings, etc.

DATA REQUIREMENT

CONTRACT APPLICATION INFORMATION FOR DRL <u>USTDC</u>	Page 1 of 2	A. ITEM NO. 014
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B. LINE ITEM TITLE:

Technology Transfer Plan

C. OPR. YA-C1	D. TYPE 1	E. INSPECT/ ACCEPT 2	F. FREQ. RT / AR	G. INITIAL SUB. See Block J	H. AS OF DATE See Block J
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J. REMARKS:
The initial plan submittal shall be 30 days after the contract start. The plan shall be maintained throughout the life of the contract.

K. DISTRIBUTION OP-OS (1) YA-A (CTM) (1) YA-C1 (1)	TOTALS	
	NO.	TYPE
	3	A

DATA REQUIREMENT DESCRIPTION

1. TITLE Technology Transfer Plan	2. NUMBER
3. USE To describe the Contractor's plan for implementation of NASA's technology transfer policies.	4. DATE
	5. ORGANIZATION KSC/YA
7. INTERRELATIONSHIP DRD-18	6. REFERENCES See Block 8

8. PREPARATION INFORMATION:
The Contractor shall establish a written, detailed Technology Transfer Plan setting forth the manner in which the contractor will meet the new technology reporting requirements of the Patent Rights – Retention by the Contractor (Short Form) clause (FAR 52.227-11 as modified by NFS 1852.227-11). The plan will also identify how the Contractor will implement NASA's technology transfer policy set forth in NASA's NPG 7500.1 (NASA Technology Commercialization Process), NPD 7500.2 (NASA Technology Commercialization Policy), and NPD 2210.1A (External Release of NASA Software). The plan shall address, at a minimum, the following:

1. Identify the specific areas of technical effort that are considered likely to generate new technology.
2. Describe the means by which project supervisory and technical personnel will be advised of the responsibilities, details, and benefits of new technology reporting.
3. Describe the procedures to be established, maintained, and followed for reviewing the effort to be undertaken for the purposes of identification and reporting (disclosure) of new technology within the time periods and in the manner prescribed by the Patent Rights clause.
4. Describe the procedure for timely submission of the interim and final new technology reports required by the Patent Rights clause.

Describe the procedures for (a) selecting either NASA's New Technology clause (NFS 1852.227-70) or another patent rights clause for inclusion in subcontracts having as a purpose the conduct of experimental, developmental, research, design, or engineering work, and (b) providing prompt notification of either the award of such subcontracts or a subcontractor's refusal to accept the clause.

(See continuation sheet)

Block 8. Preparation Information Continued.

6. Identify the individual(s) assigned substantial and specific responsibilities for ensuring compliance with the requirements of the Patent Rights clause, as well as their qualifications and organizational placement to discharge these responsibilities.
7. Establish a technology transfer point of contact for coordinating all technology transfer activities.
8. Describe the Contractor's commitment to the development of cutting-edge dual use technologies having both application within and outside of the aerospace community.
9. Describe programs aimed at educating and motivating employees to report new technology.
10. Describe programs that assist subcontractors in establishing technology transfer policies and implementing technology transfer plans.
11. Describe programs aimed at conducting collaborative efforts with third parties for the purpose of effectively transferring technology.

Funding for such collaborative efforts will not necessarily include government funds and may consist of totally private funds. These collaborative efforts shall be reviewed and, where Government funds are to be used, approved by the Contracting Officer. Ownership of rights to the technology developed under these collaborative efforts shall be addressed in the individual agreements that are negotiated as part of the technology transfer process.

12. Describe programs aimed at conducting application engineering work for the purpose of adapting the developed technology to a specific commercial use.
13. Describe programs that demonstrate a strong management commitment to technology transfer.

To maximize the benefits received from the program, it will be necessary to identify and protect the intellectual property rights associated with the technology developed under this contract (i.e., patents, copyrights, trade secrets and know-how). To the extent feasible, the Government agrees to use its best efforts to transfer rights in government-owned technology in order to support the Contractor's technology transfer program.

DATA REQUIREMENT

CONTRACT APPLICATION INFORMATION FOR DRL <u>USTDC</u>					Page 1 of 1	A. ITEM NO. 015										
B. LINE ITEM TITLE: Export Control Program (ECP) Plan																
C. OPR. TA-E	D. TYPE 1	E. INSPECT/ ACCEPT 2	F. FREQ. RT/AD	G. INITIAL SUB. See Block J	H. AS OF DATE See Block J											
J. REMARKS: The ECP Plan, hereinafter referred to as Plan, requires approval of the Center Export Administrator (CEA). The Plan shall be submitted in draft form within 30 days after start of contract. The Plan shall be revised and submitted in final form within 90 days after start of contract. The Plan shall be reviewed at least annually thereafter and updated as required. The Plan may be subject to a review at any time by the NASA Office of Inspector General. The Plan may be audited at least yearly.																
K. DISTRIBUTION YA-A (CTM) (1) QA-C (1) OP-OS (1) TA-E (1) YA-C2 (1)						<table border="1" style="width:100%; border-collapse: collapse;"> <tr><th colspan="2">TOTALS</th></tr> <tr><th>NO.</th><th>TYPE</th></tr> <tr><td style="text-align: center;">5</td><td style="text-align: center;">A</td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </table>	TOTALS		NO.	TYPE	5	A				
TOTALS																
NO.	TYPE															
5	A															
DATA REQUIREMENT DESCRIPTION																
1. TITLE Export Control Program (ECP) Plan				2. NUMBER												
3. USE Document the Contractor's approach for export control and ensure that KSC and NASA export control are implemented.				4. DATE												
				5. ORGANIZATION KSC/YA												
7. INTERRELATIONSHIP				6. REFERENCES NFS 1852.225-70												
8. PREPARATION INFORMATION The Export Control Program Plan shall describe all export control activities related to the performance of USTDC contract requirements. The Plan shall specifically address the process and procedure for access of foreign nationals and university-affiliate personnel to KSC facilities, personnel, and information. The Plan shall describe the Contractor's planned approach for accomplishing contract functions while assuring adherence to export laws, regulations, and directives. The Plan shall include a compliance program. The Plan shall include an export control official who will serve on the KSC Export Control Working Group. Contractor format is acceptable. The Plan shall be reviewed annually to ensure accuracy. Any updates to the Plan require a resubmission of the Plan.																

DATA REQUIREMENT

CONTRACT APPLICATION INFORMATION FOR DRL USTDC Page 1 of 1

A. ITEM NO.
016

B. LINE ITEM TITLE:

Information Technology (IT) Plan

C. OPR. YA-D6	D. TYPE 1	E. INSPECT/ ACCEPT 6	F. FREQ. See Block J	G. INITIAL SUB. See Block J	H. AS OF DATE See Block J
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J. REMARKS:

Block F: Yearly as required for Level A plan with updates as necessary. Initially and as required for updates for Level B plan.
Block G: Within 45 days after contract start.
* Block K - Code D: Data to be provided on electronic medium. OPR will determine the type and quantity.

K. DISTRIBUTION

YA-A (CTM) (1)
YA-D6 (1)

TOTALS	
NO.	TYPE
2	A
*	D

DATA REQUIREMENT DESCRIPTION

1. TITLE Information Technology (IT) Plan	2. NUMBER
3. USE To document Contractor Information Technology requirements for NASA approval and reporting to other government activities.	4. DATE
	5. ORGANIZATION KSC/YA
7. INTERRELATIONSHIP DRD 18	6. REFERENCES

8. PREPARATION INFORMATION

Prepare Level A and Level B Information Technology Plans and submit to the Information Resources Manager (IRM) Representative as required to maintain current information on I/T requirements and changes thereto. Section J, Attachment J-1, Appendix 6 contains the NASA KSC Chief Information Officer (CIO) direction currently in use pending NASA agency directives.

DATA REQUIREMENT

CONTRACT APPLICATION INFORMATION FOR DRL <u>USTDC</u>	Page 1 of 1	A. ITEM NO. 017
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B. LINE ITEM TITLE:

Equal Employment Opportunity Report

C. OPR.	D. TYPE	E. INSPECT/ ACCEPT	F. FREQ.	G. INITIAL SUB.	H. AS OF DATE
AJ	3	2	QU	See Block J	See Block J

J. REMARKS:

The Contractor shall provide this report no later than 7 calendar days after the close of each reporting period which end March 31st, June 30th, September 30th, and December 31st.

K. DISTRIBUTION AJ (1) OP-OS (1) YA-A (CTM) (1)	TOTALS	
	NO.	TYPE
	3	A

DATA REQUIREMENT DESCRIPTION

1. TITLE Equal Employment Opportunity Report	2. NUMBER
3. USE This document will be used by Government personnel to assess the contractor's equal employment and affirmative action management of the contract effort.	4. DATE
	5. ORGANIZATION KSC/YA
7. INTERRELATIONSHIP	6. REFERENCES

8. PREPARATION INFORMATION

A. Format and content of the report shall be in accordance with KSC Forms 32-58 C/G 1/91, Quarterly Equal Opportunity Statistical Report, and a narrative report for Equal Employment Activities containing, as a minimum the following:

- Contract Number
- Community Activities
- Recruiting Activities
- Special Events
- Other pertinent information

B. Reports shall be provided not later than 7 calendar days after the end of the quarter, as defined in Block J.

C. The Contractor may reproduce the forms or obtain an electronic version from the NASA KSC EO Office.

DATA REQUIREMENT

CONTRACT APPLICATION INFORMATION FOR DRL <u>USTDC</u>					Page 1 of 1	A. ITEM NO. 018	
B. LINE ITEM TITLE: Technology Transfer Report							
C. OPR. YA-C1	D. TYPE 1	E. INSPECT/ ACCEPT 2	F. FREQ. QU	G. INITIAL SUB. See Block J	H. AS OF DATE 90/10		
J. REMARKS: The initial report submittal shall be submitted 3 months after the contract start.							
K. DISTRIBUTION YA-A (CTM) (1) YA-C1 (1) OP-OS (1)						TOTALS	
						NO.	TYPE
						3	A
DATA REQUIREMENT DESCRIPTION							
1. TITLE Technology Transfer Report					2. NUMBER		
3. USE To describe the Contractor's new technology activity.					4. DATE		
					5. ORGANIZATION KSC/YA		
7. INTERRELATIONSHIP DRD-014					6. REFERENCES See Block 8		
8. PREPARATION INFORMATION Prepare and submit a Technology Transfer Report on the following technology transfer activities:							
<ol style="list-style-type: none"> 1. Identify all reportable new technology items developed under this contract during the reporting period in accordance with the Patent Rights clause (FAR 52.227-11 as modified by NFS 1852.227-11). 2. Identify promising technologies developed under this contract during the reporting period having dual-use or partnership potential. 3. Report on the activities conducted under the Contractor's Technology Transfer Plan during the reporting period. 							

DATA REQUIREMENT

CONTRACT APPLICATION INFORMATION FOR DRL <u>USTDC</u>					Page 1 of 1	A. ITEM NO. 019
B. LINE ITEM TITLE: Safety Statistics Report (SSR)						
C. OPR. TA-C1	D. TYPE 3	E. INSPECT/ ACCEPT 6	F. FREQ. See Block J	G. INITIAL SUB. See Block J	H. AS OF DATE 30/10	
J. REMARKS: Block F: Monthly on or before 10 th of each month, for the previous month. Block G: By the 10 th of the month after the month of contract start.						
K. DISTRIBUTION					TOTALS	
TA-C1 (1) QA-D (1)					NO.	TYPE
YA-A (CTM) (1) OP-OS (1)					5	A
YA-B (1)						
DATA REQUIREMENT DESCRIPTION						
1. TITLE Safety Statistics Report (SSR)					2. NUMBER	
3. USE To provide quantitative measure of contractor safety performance.					4. DATE	
					5. ORGANIZATION KSC/TA-C1	
7. INTERRELATIONSHIP DRD 7					6. REFERENCES KHB 1710.2E	
8. PREPARATION INFORMATION The Safety Statistics Report (SSR) provides information on mishaps affecting the Contractor's performance. Mishap statistical information shall be reported/submitted using KSC Form 6-22. Cumulative totals shall be by fiscal year. The report shall be submitted monthly as specified in Block J above.						

DATA REQUIREMENT

CONTRACT APPLICATION INFORMATION FOR DRL <u>USTDC</u>	Page 1 of 1	A. ITEM NO. 020
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B. LINE ITEM TITLE:

Pressure Vessel/System Certification Report

C. OPR. TA-C1	D. TYPE 3	E. INSPECT/ ACCEPT 6	F. FREQ. QU	G. INITIAL SUB. See Block J	H. AS OF DATE 90/10
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J. REMARKS:

Block G: The initial report submittal shall be thirty days after contract start.

K. DISTRIBUTION TA-C1 (1) YA-A (CTM) (1) OP-OS (1 – transmittal letter only)	TOTALS	
	NO.	TYPE
	2	A
	1	D

DATA REQUIREMENT DESCRIPTION

1. TITLE Pressure Vessel/System Certification Report	2. NUMBER
3. USE Data required to demonstrate Pressure Vessel/System Certification KHB 1710.2E requirements, to ensure all assigned ground-based pressure vessels and pressurized systems are certified safe to operate and are re-certified periodically.	4. DATE
	5. ORGANIZATION KSC/YA
7. INTERRELATIONSHIP	6. REFERENCES KHB 1710.2E

8. PREPARATION INFORMATION

The Pressure Vessel/System Certification Report covers all pressure vessels and pressurized systems under the Contractor's responsibility. Contents shall be in accordance with requirements in KHB 1710.2E.

DATA REQUIREMENT

CONTRACT APPLICATION INFORMATION FOR DRL <u>USTDC</u>	Page 1 of 1	A. ITEM NO. 021
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B. LINE ITEM TITLE:

Government Industry Data Exchange Program (GIDEP) Alert System Report

C. OPR. YA-B	D. TYPE 3	E. INSPECT/ ACCEPT 6	F. FREQ. See Block J	G. INITIAL SUB. See Block J	H. AS OF DATE See Block J
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J. REMARKS:

Block F: Responses to Alerts affecting flight hardware within 90 days. Contractor initiated Alerts due to NASA within 10 days.
Block G and H: Submission as required.

K. DISTRIBUTION YA-B (1) YA-A (CTM) (1) QA-C (1) TA-C1 (1)	TOTALS	
	NO.	TYPE
	4	A

DATA REQUIREMENT DESCRIPTION

1. TITLE GIDEP Alert System	2. NUMBER
3. USE To report disposition of application problems encountered with parts/materials.	4. DATE
	5. ORGANIZATION KSC/YA
7. INTERRELATIONSHIP	6. REFERENCES NPG 8735.1 KHB 5310.1D

8. PREPARATION INFORMATION

The GIDEP Alert System notifies all organizations of problems associated with GSE items which could cause loss of GSE, flight hardware or personnel.

DATA REQUIREMENT

CONTRACT APPLICATION INFORMATION FOR DRL <u>USTDC</u>	Page 1 of 2	A. ITEM NO. 022
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B. LINE ITEM TITLE:
Headcount Report

C. OPR. YA-A	D. TYPE 3	E. INSPECT/ ACCEPT 6	F. FREQ. QU	G. INITIAL SUB. See Block J	H. AS OF DATE 90/10
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J. REMARKS:
Block G: Initial submittal 10 days after contract start.

K. DISTRIBUTION YA-A (CTM) (1) OP-OSO (1) GG-C-A2 (1) BA-D (1) QA-A-1 (1)	TOTALS	
	NO.	TYPE
	5	A

DATA REQUIREMENT DESCRIPTION

1. TITLE Headcount Report	2. NUMBER
3. USE Information for workforce reporting requirements.	4. DATE
	5. ORGANIZATION KSC/YA
7. INTERRELATIONSHIP	6. REFERENCES

8. PREPARATION INFORMATION

A. Labor Reports should be submitted quarterly, not later than the 5th day of the following month.

B. A complete organization chart including all employees by skill or job classification shall be provided.

C. Labor data should be submitted and should be formatted as follows:

Total Headcount at KSC

Prime

On Site
Off Site
Dispossessed
Other Off Site

Total: _____

Subcontractors (by name): **(Include only Subcontractors with on site personnel)**

On Site
Off Site
Dispossessed
Other Off Site

Total: _____

Construction

<u>Subcontractors (by name):</u>	<u>Brief Description</u>	<u>Total</u>
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(See continuation sheet)

DRD022 – Headcount Report**CONTINUATION SHEET****Page 2 of 2**

Block 8. Preparation Information Continued.

The following definitions apply to the above items:

1. On Site - Those personnel performing on the contract occupying physical space on the Kennedy Space Center or the Cape Canaveral Air Station. This includes those personnel temporarily absent from assigned duty stations (e.g., on leave without pay, annual/sick leave).
 2. Off Site - Total of those personnel performing on the contract, but physically located outside the environs of KSC or CCAS.
 - a. Dispossessed - Those personnel who normally would occupy physical space within the environs of KSC, but who have been located outside due to non-availability of space.
 - b. Others Off Site - Those personnel within total contract headcount who are not planned to occupy physical space within the environs of KSC or CCAS.
 3. Construction Subcontractors - Those personnel performing on the contract within the environs of KSC or CCAS. Include a brief description or title of the effort.
- D. Also report number of On Site and Off Site Union represented employees, as applicable.

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Performance Work Statement - Appendix B Applicable Documentation List

Document Number	<u>Document Title</u>
GP-435	Engineering Drawing Practices, Volumes I and II
ISO 8402	American National Standard: Quality Management and Quality Assurance-- Vocabulary
ISO9001:2000	Quality Management Standard
JDP-KSC-P-3014	Generic Emergency Procedures Document
JHB 2000	Consolidated Comprehensive Emergency Management Plan
JSC-SW-E-002	Space Shuttle Program GSE General Design Requirements
KDP-KSC-P-1334	KSC Network Scan Process
KDP-KSC-P-1535	Design Review Process
KDP-KSC-P1537	Document Release Authorization Process
KDP-KSC-S-2001	KSC Roadmap: Center of Excellence: Launch and Payload Processing Systems
KHB 1200.1	Facilities, Systems, and Equipment Management Handbook
KHB 1610.1	KSC Security Handbook
KHB 1710.2	Kennedy Space Center Safety Practices Handbook
KHB 1860.1	KSC Ionizing Radiation Protection Program
KHB 1860.2	KSC Nonionizing Radiation Protection Program
KHB 1870.1	KSC Sanitation Handbook
KHB 2570.1	KSC Radio Frequency Spectrum Management Handbook
KHB 4000.1	Supply Support System Manual
KHB 5310.1	Reliability, Maintainability, and Quality Assurance Handbook
KHB 6000.1	Transportation Support System Handbook
KHB 8800.6	KSC Environmental Control Handbook
KHB 8800.7	Waste Management Handbook
KMI 1710.18	KSC Safety Assurance Policy
KMI 1800.2	KSC Hazard Communication Program
KMI 1810.1	KSC Occupational Medicine Program
KMI 1860.1	KSC Radiation Protection Program
KMI 8800.8	KSC Environmental Management
KNPD 1440.1	KSC Records Management and Vital Records Program
KSC-DE-512-SM	Facility, System, and Equipment General Design Requirements
KSC-DF-107	DE Technical Documentation Style Guide
MIL-STD-1472	Human Engineering Design Criteria For Military Systems, Equipment and Facilities
NASA-STD-2201-93	Software Assurance Standard
NASA-STD-8729.1	Planning, Developing, and Managing an Effective Reliability and Maintainability (R&M) Program
NPD 1371.5	Coordination and Authorization of Access by Foreign Nationals and Foreign Representatives to NASA

	NASA
NPD 1440.6F	NASA Records Management
NPD 2210.1A	External Release of NASA Software
NPD 2810.1	Security of Information Technology
NPD 2820.1	NASA Software Policies
NPD 4200.1A	Equipment Management
NPD 7120.4B	Program/Project Management
NPD 7500.2	NASA Technology Commercialization Policy
NPD 8700.1	NASA Policy for Safety and Mission Success
NPD 8700.2	Policy for Safety and Mission Assurance (SMA) for Experimental Aerospace Vehicles (EAV)
NPD 8710.2C	NASA Safety and Health Program Policy
NPD 8710.5	NASA Safety Policy for Pressure Vessels and Pressurized Systems
NPD 8720.1	NASA Reliability and Maintainability Program Policy
NPD 8730.3	NASA Quality Management System Policy (ISO 9000)
NPD 9501.1G	NASA Contractor Financial Management Reporting System
NPG 1441.1C	NASA Records Retention Schedules
NPG 2810.1	Security of Information Technology
NPG 4200.1E	NASA Equipment Management Manual
NPG 4200.2B	Equipment Management Manual for Property Custodians
NPG 7120.5A	NASA Program and Project Management Processes and Requirements
NPG 7500.1	NASA Technology Commercialization Process
NPG 8000.4	Risk Management Procedures and Guidelines
NPG 8621.1	NASA Procedures and Guidelines for Mishap Reporting, Investigating, and Recordkeeping
NPG 8715.3	NASA Safety Manual
NPG 8735.1	Procedure for Exchanging Parts, Materials, and Safety Problem Data Utilizing the Government-Industry Data Exchange Program and NASA Advisories
NPG 8820.2C	Facility Project Implementation Handbook
NPG 9501.2D	NASA Contractor Financial Management Reporting
NSTS 22206	Requirements for Preparation and Approval of Failure Modes and Effects
NSTS 22254	Methodology for Conduct of Space Shuttle Program Hazard Analysis
SSP 50004	Ground Support Equipment Design Requirements

**Performance Work Statement
Appendix C
Facilities, Laboratories, and Testbeds List**

Launch Equipment Test Facility (LETf) M7-505

- Special Instrumentation and Development Laboratory (LETf M7-505 Rm1314A-C)
- GSE Development Laboratory (LETf M7-505 HB)
- Data Acquisition Systems Laboratory (LETf M7-505 Rms101, 1313, 1307)LETfFabrication/Welding Shops (LETf M7-505)
- 600-Ton Test Fixture (LETf Yard M7-505A)
- Holddown Post Test Fixture (LETf Yard M7-505A)
- Random Motion Simulators (2) (LETf Yard M7-505A)
- Lift-Off Simulator (LETf Yard M7-505A)
- Water Flow Test Loop (LETf M7-505A)
- LETf Test Control Room (LETf M7-505)
- Corrosion Facility (LETf M7-505)
- Cryogenics Testbed Facility (GSE Storage Building M7-557)
- Launch Systems Testbed Laboratory (GSE Storage Building M7-557)

Operations and Checkout Building (O&C) M7-355

- Optical Instrumentation Laboratory (O&C M7-355 Rms 2291, 2289, 2287)
- Chemical Instrumentation and Processes Wet Laboratory/Toxic Vapor Detection Laboratory/Contamination Monitoring Laboratory (O&C M7-355 Rms 2214, 2219) ESD Testbed (O&C M7-355 Rms 2275)
- Beach Corrosion Test Site (Bld. K8-237)
- Corrosion Testbed (O&C M7-355 Rm 2211, 2223)
- Applied Physics Laboratory (O&C Rm 4279)

Engineering Development Laboratory (EDL) M7-409

- Fiber Optics and Communications Laboratory (EDL M7-409 Rm 198)
- Advanced communications systems lab (EDL M7-409 Rms 123&140-144)
- Range systems lab(EDL M7-409 Rm 101)
- Data Acquisition Systems Laboratory (EDL M7-409 Rms 160A-C)
- Transducers and Sensors Laboratory (EDL M7-409 Rms 111,119,121,128)
- Landing Systems Development Laboratory (EDL M7-409 Rm 103)
- Hazardous Gas Detection Laboratory (EDL M7-409 Rms 115,117)
- Control, Checkout, and Data Systems Laboratory (EDL M7-409 Rms 207, 209)

Central Information Facility (CIF) M6-342

- Audio and Radio Frequency (RF) Lab (CIF M6-342 Rm 348)
- Control, Checkout, and Data Systems Laboratory (CIF M6-342 Rms 239, 295, 295A, 295B, 297, 297A)

Headquarters (HQ) M6-399

- Computer Systems and Network Support Laboratory (HQ M6-399 Rm 3310)
- Digital Media and Training Laboratory (HQ M6-399 Rm 3302A)
- Information Systems Laboratory (HQ M6-399 Rm 1501)
- Information Systems Development Lab (HQ M6-399 Rm 1529)

**Performance Work Statement
Attachment J-2
Installation Provided Property List**

ECN	ITEM	BLDG	DATE (YYYYMMDD)	COST (\$)	ROOM
0026412	STEREO CASSETTE DECK	M6399	19960823	995	3302
0026424	DISK ARRAY	M6399	19960920	3380	3302
0026496	VCR	M6399	19961029	3895	3302
0026503	HARD DRIVE ARRAY	M6399	19961104	3078	3302
0026504	HARD DRIVE ARRAY	M6399	19961104	3078	3302
0026505	HARD DRIVE ARRAY	M6399	19961106	3078	3302
0026524	RECORDER, VIDEO CASSETTE	M6399	19961210	1470	3302
0026527	DECODER UNIT	M6399	19970109	1875	3302
0026534	LENS, CAMERA	M6399	19961217	950	3302
0026566	RECORDER, TAPE	M6399	19940830	2763	3302
0026575	COMPUTER, LAPTOP	M6399	19970303	3270	3302
0026695	MESSAGE PAD 2000	M6399	19970719	999	3302
0026715	MESSAGE PAD 2000	M6399	19970801	3295	3302
0026782	HUB	M6399	19970909	1115	3364
0026796	COMPUTER, NOTEBOOK	M6399	19970912	3691	3302
0026871	DISK DRIVE UNIT, CD-RW	M6399	19980917	651	3302
0026884	COMPUTER, DIGITAL	M6399	19981005	2901	3302
0027003	CAMERA, VIDEO CAMCORDER	M6399	20000818	4000	3130
0027014	COMPUTER SYSTEM, DIGITAL	M6399	20001030	1723	3302
0027024	RECORDER, VIDEO CASSETTE	M6399	20010316	2858	3130
0027025	CAMCORDER, DIGITAL	M6399	20010316	2801	3130
0027030	DISK DRIVE UNIT	M6399	20011010	966	3302
0027034	CAMERA, DIGITAL	M6399	20011203	1024	2106
0817699	CAMERA, VHS	M6399	19930723	4730	3130
0817709	ADAPTER, CAMERA	M6399	19930730	858	3130
0817710	LENS, CAMERA	M6399	19930730	1074	3302
0817722	RECORDER, REPRODUCER	M6399	19930805	3096	3130
0817754	CAMERA, COLOR	M6399	19930901	6017	3302
0817760	LENS, CAMERA, ZOOM	M6399	19930903	1074	3302
0817781	CAMERA, DIGITAL SYSTEM	M6399	19930910	8395	3302
0817826	LENS, TV CAMERA	M6399	19940106	5081	3302
0818369	CAMCORDER, VIDEO	M6399	19950620	2700	3302
0818412	TAPE RECORDER, DIGITAL	M6399	19960404	2175	3302
0818417	RECORDER, PORTABLE	M6399	19960404	15050	3302
0818452	CONVERTER	M6399	19960430	1035	3302
0818456	COMPUTER, LAPTOP	M6399	19960503	4350	3302
0818457	COMPUTER, LAPTOP	M6399	19960503	4350	3302
0818460	MONITOR, VIDEO, COLOR	M6399	19960503	1000	3130
0818461	MONITOR, VIDEO, COLOR	M6399	19960503	1005	3302
0818470	TAPE BACK-UP	M6399	19960731	4365	3302
0818480	RECORDER, CD	M6399	19960701	1699	3302
0818514	HARD DRIVE	M6399	19960705	1270	3302
0818530	HARD DRIVE	M6399	19960716	600	3302
1128452	TAPE RECORDER	M6399	19931005	3693	3302
1128890	PRINTER, ADP, COLOR	M6399	19940811	5752	3302
1128898	MIXER, AUDIO	M6399	19940829	1385	3130
1131471	RECORDER/REPRODUCER VIDEO	M6399	19920608	5250	3302
1131472	RECORDER/REPRODUCER VIDEO	M6399	19920608	3750	3302
1131487	RECORDER, REPRODUCER, VIDEO	M6399	19920618	840	3302

1131802	PROJECTOR, OVERHEAD SOLOR	M6399	19921007	2779	3302
1131804	RECORDER/REPRODUCER, VCR SUPER	M6399	19921007	830	3302
1131837	PROJECTOR, LITE	M6399	19921111	5947	3302
1132087	CAMERA, VIDEO HI-8	M6399	19930329	2085	3302
1132114	DECK, VIDEO DISTR. SYSTEM	M6399	19930428	5318	3130
1132115	EDIT CONTROLLER	M6399	19930428	1617	3302
1132156	MONITOR, VIDEO, COLOR	M6399	19930506	847	3130
1132171	DISPLAY UNIT, 21" COLOR	M6399	19930601	2328	3225
1132468	RECORDER-REPRODUCER, VIDEO	M6399	19930903	3096	3130
1132478	CAMERA, CCD COLOR PACKAGE	M6399	19930903	4730	3130
1377935	CCMS CONSOLE SYSTEM	M6399	19991217	7400	3302
1383189	HARD DRIVE	M6399	19950613	6975	3302
1383195	MONITOR	M6399	19950620	1000	3130
1383196	RECORDER, VIDEO, CASSETTE	M6399	19950620	1400	3130
1383466	BATTERY CHARGER	M6399	19950914	1179	3130
1383554	CPU	M6399	19950929	5085	3302
1383591	COMPUTER	M6399	19960130	10101	3364
1383592	HARD DRIVE, EXTERNAL	M6399	19960130	2144	3364
1383593	TAPE BACK-UP	M6399	19960130	2160	3364
1383597	DISPLAY UNIT, COLOR	M6399	19960130	999	3302
1388104	DISPLAY UNIT, COLOR	M6399	19950315	1800	3364
1388106	DISK DRIVE UNIT	M6399	19950315	1005	3364
1393601	COMPUTER, DIGITAL	M6399	19951130	22896	3364
1393605	DISK DRIVE UNIT	M6399	19951130	3953	3364
1393606	TAPE DRIVE UNIT	M6399	19951130	3953	3364
1504433	SPEAKER	M6399	19960109	1350	3302
1504434	SPEAKER	M6399	19960109	1350	3302
1504435	SPEAKER	M6399	19960109	1350	3302
1504436	SPEAKER	M6399	19960109	1350	3302
1504439	MONITOR, COLOR 17"	M6399	19970114	680	3130
1504472	SCANNER	M6399	19970425	4495	3302
1504483	COMPUTER	M6399	19970529	6649	3364
1504484	COMPUTER	M6399	19970529	6649	3364
1504506	PROJECTOR	M6399	19970703	6004	3231
1504538	MONITOR 15"	M6399	19970729	500	3130
1504555	MONITOR 17"	M6399	19970806	625	3302
1504557	MONITOR 17"	M6399	19970806	625	3130
1504558	MONITOR 17"	M6399	19970806	625	3302
1504579	SERVER	M6399	19970826	7310	3364
1504630	RECORDER, AUDIO	M6399	19970915	5775	3302
1504653	DISPLAY UNIT, COLOR	M6399	19970922	1910	3302
1504654	DISPLAY UNIT, COLOR	M6399	19970922	1910	3302
1504695	DISPLAY UNIT, COLOR	M6399	19970923	1910	3130
1504705	CONSOLE, MIXING	M6399	19960216	2995	3302
1504707	TELEPROMPTER	M6399	19960216	1925	3302
1504711	HARD DRIVE	M6399	19960328	1020	3302
1504712	HARD DRIVE	M6399	19960328	1020	3302
1504735	KEYBOARD	M6399	19960404	3450	3302
1504746	DUPLICATOR	M6399	19960410	4452	3302
1504783	COMPUTER	M6399	19960708	18000	3130
1504863	COMPUTER	M6399	19960709	4400	3302
1504875	COMPUTER	M6399	19960718	9600	3364
1504907	MONITOR	M6399	19960809	4000	3364
1822133	DISPLAY UNIT	M6399	19970905	656	3302
1867383	POWER SUPPLY, RK MTD	M6399	19970905	656	3364

1872392	RECORDER, FILM	M6399	19980416	12875	3302
1872394	SERVER	M6399	19980416	5946	3364
1979255	COMPUTER, DIGITAL	M6399	19980707	5135	3302
1979256	DISPLAY UNIT, COLOR	M6399	19980707	1500	3302
1979257	DISPLAY UNIT, COLOR	M6399	19980707	1500	3302
1979273	DISK DRIVE UNIT	M6399	19980730	840	3364
1981218	TAPE DRIVE UNIT	M6399	19981007	4565	3364
1981253	SERVER, INTERNET	M6399	19990211	2475	3364
1981296	DISK DRIVE UNIT	M6399	19990622	3500	3302
1981300	DISPLAY UNIT, COLOR	M6399	19990609	610	3302
1981302	COMPUTER, DIGITAL	M6399	19990629	3579	3302
1981315	WORKSTATION	M6399	19990714	4800	3302
1982031	TAPE RECORDER	M6399	19930806	3693	3302
2023977	DISPLAY UNIT, COLOR	M6399	20000815	989	3302
2024003	DISK DRIVE UNIT	M6399	20010921	2995	3302
2024045	GUITAR, MIDICONTROLLER	M6399	20011010	2149	3302
2024050	RECORDER, VIDEO SYSTEM	M6399	20010921	3349	3302
2024109	LIGHT, VIDEO SETS	M6399	20011005	1165	3130
2024110	LIGHT, VIDEO SETS	M6399	20011005	1165	3130
2024129	POWER SUPPLY, UNINTERRUPTED	M6399	20011127	605	3364
2024130	POWER SUPPLY, UNINTERRUPTED	M6399	20011127	605	3364
2024131	POWER SUPPLY, UNINTERRUPTED	M6399	20011127	605	3364
0817686	PROGRAMMER, UNIVERSAL	M7409	19930715	2495	132
0011740	MULTIMETER, DIGITAL	M7409	19901126	269	115
0684276	POWER SUPPLY	M7409	19930715	2400	198
0748609	MULTIMETER	M7409	19850227	450	115
2024120	GAS DILUTION SYSTEM	M7409	20011005	14345	115
1041030	TERMINAL, ELECTROLUMINESCENT	M7409	19944204	1495	132
0161486	THERMAL MASS FLOWMETER SYS	M7409	19870303	9999	117
0161780	FIELD TEST BOX	M7409	19870407	1800	117
0161860	SPECTROMETER	1385	19870407	94593	ANNEX
2021826	POWER SUPPLY	M7409	19991208	960	117
1375563	DETECTOR, LEAK, HELIUM	M7409	19940813	18465	115
0165414	MULTIMETER	M7409	19880219	349	115
1041031	TERMINAL, ELECTROLUMINESCENT	M7409	19911204	1495	132
1383418	CPU	M7409	19950824	1788	117
1379839	PRINTER, ADP, DESKJET	M7409	19941209	785	117
1379841	COMPUTER, DIGITAL	M7355	19941209	4000	2289
1379842	ANALYZER, GAS DETECTOR II	M7409	19941209	52076	ANNEX
1504590	MONITOR 17"	M7409	19970828	625	117
0026672	CAMERA, DIGITAL	M7409	19970701	879	115
0026959	COMPUTER SYSTEM, DIGITAL	M7409	20000321	4349	132
0026960	COMPUTER SYSTEM, DIGITAL	M7409	20000321	4349	132
0026961	COMPUTER SYSTEM, DIGITAL	M7409	20000321	4349	132
0817665	DISK DRIVE UNIT, EXTERNAL	M7409	19930616	920	132
1504747	INTERFACE, ETHERNET	M7409	19960410	1095	117
1132457	WELDING MACHINE, MICROCONTROL	M7409	19930901	15030	115
1041044	COMPUTER, DIGITAL	M7409	19911115	5063	132
1041045	COMPUTER, DIGITAL	M7409	19911115	5063	132
1393772	DISPLAY UNIT, COLOR	M7409	19980810	410	117
1504501	GAS ANALYZER	M7409	19970702	3750	117
1383312	SCOPEMETER	M7409	19950811	2642	117
1131642	SOLDERING STATION, PRC-2000	M7409	19920806	2970	115
1383510	VACUUM CONTROLLER	M7409	19950926	2380	117
1383485	VACUUM CONTROLLER	M7409	19950922	2380	117

0592685	SPECTROMETER, MASS	1385	19900125	49794	ANNEX
0651781	DATA LOGGER	M7409	19830930	7490	ANNEX
0683501	INTERFACE BUFFER SPECTROMETER	M7409	19851015	7500	ANNEX
0683503	ELECTRONIC CONTROL ASSEMBLY	1385	19851015	1500	ANNEX
0684277	POWER SUPPLY	M7409	19841107	2400	ANNEX
1132210	COMPUTER, GRAPHICS XS24	M7409	19930610	12996	132
1132211	DISPLAY UNIT, 16" COLOR	M7409	19930610	2000	132
0695813	MAINFRAME	M7409	19841107	1280	ANNEX
0695839	MULTIMETER	M7409	19841107	1315	117
0698790	ANALYZER	M7355	19841029	9999	4281
0747591	POWER SUPPLY	M7409	19841214	2521	ANNEX
2022530	COMPUTER, DIGITAL	M7409	20000613	5812	115
0748855	CONTROL UNIT	M7409	19850402	6965	115
0749684	SPECTRALINK, MS. CONTROLLER	1385	19850708	16833	ANNEX
0750417	OSCILLOSCOPE, DIGITAL	M7409	19850819	8869	ANNEX
0764752	MULTIMETER	M7409	19841214	2130	ANNEX
0764753	POWER SUPPLY	M7409	19841214	2930	ANNEX
2022446	DISPLAY UNIT, COLOR	M7409	20000619	2972	115
0788401	MULTIMETER	M7409	19841107	730	ANNEX
0788402	MULTIMETER	M7409	19841107	730	ANNEX
0788403	MULTIMETER	M7409	19841107	730	ANNEX
0822053	SPECTROMETER, MASS	M7409	19880301	73825	117
0861694	POWER SUPPLY	M7409	19880318	1000	BLKHS
0861696	POWER SUPPLY	M7409	19880318	1000	BLKHS
1379837	PRINTER	M7409	19941114	2750	117
0866289	POWER SUPPLY, TURBO PUMP	M7409	19890519	1725	ANNEX
0817659	MEASUREMENT & CONTROL SYSTEM	M7409	19930610	3220	117
0867956	ANALYZER, PROTOCOL	M7409	19910312	4831	132
0870246	CONTROLLER W/TURBOMOLEC. PUMP	M7409	19891004	6180	ANNEX
0870460	CENTRAL ATMOSPHERE MONITOR SYS	1385	19910911	335000	ANNEX
0871584	PRINTER, ADP	M7409	19891201	4465	117
0875745	MULTIMETER, DIGITAL	M7409	19880715	295	115
1981352	COMPUTER SYSTEM, DIGITAL	M7409	20000829	3995	132
0026993	OSCILLOSCOPE	M7409	20000829	5897	117
0026994	OSCILLOSCOPE	M7409	20000829	2410	117
0026998	PRINTER, ADP	M7409	20000829	1048	111
0027008	MANOMETER	M7409	20000915	2740	115
0027007	SPECTROMETER, MASS	M7409	20000915	19636	117
2023365	COMPUTER, DIGITAL	M7409	20000925	3059	115
2023394	CONTROLLER, MULTIGAS	UF	20010004	5895	304W
1374150	TOOL KIT, INTERFACE SET	M7409	19941108	14700	ANNEX
0816823	GENERATOR, FUNCTION	M7409	19911108	3734	ANNEX
0240292	AMPLIFIER	M7409	19851107	3000	ANNEX
0651786	DATA LOGGER	M7409	19821231	13195	117
1128666	SPECTROMETER, MASS	M7409	19940331	73825	117
1131528	DISK DRIVE UNIT	M7409	19920421	876	132
1393780	SPECTROMETER, MASS, SYSTEM	M7409	19960405	100000	117
2023997	COMPUTER, DIGITAL	M7409	20001212	3575	132
2023998	DISPLAY UNIT, COLOR	M7409	20001212	1175	132
1872353	COMPUTER, DIGITAL	M7409	19980112	2824	132
1872354	DISPLAY UNIT, COLOR	M7409	19980112	625	132
0027017	MICROSCOPE, STEROSCOPE	M7409	20010108	8895	117
1040909	POWER SUPPLY, DC	M7409	19911009	2726	ANNEX
1131442	COMPUTER, MODULAR	M7409	19920406	5063	132
0026877	SCOPE, VIDEO IMAGE SYSTEM	M7409	19980914	4475	ANNEX

0816856	MULTIMETER, DIGITAL	M7409	19920714	295	115
0750428	ANALYZER, PROTOCOL W/OPT	M7409	19850904	4957	103
0026807	GAUGE, CLUSTER	M7409	19970929	2475	117
0817663	TAPE DRIVE	M7409	19930616	587	132
1132340	POWERSCOPE	M7409	19930708	5115	ANNEX
0817757	GENERATOR, TIME CODE TRANSLATOR	M7409	19930903	2410	132
1383446	SPECTROMETER, TURBO, SCALER	M7409	19950811	14594	ANNEX
1383361	GENERATOR, PULSE	M7409	19950822	4174	117
1383385	POWER SUPPLY	M7409	19950822	1160	117
1981892	MEASURING SYSTEM	M7409	19990809	1685	117
1981893	MEASURING SYSTEM	M7409	19990809	1685	117
2024021	PRINTER, ADP	M7409	20010608	2089	115
2024073	COMPUTER SYSTEM, DIGITAL	M7409	20010706	3196	115
2024074	COMPUTER SYSTEM, DIGITAL	M7409	20010706	3196	115
2021566	MANOMETER, CAPACITANCE	M7409	19991012	2435	117
2021564	DIGITAL READ DISPLAY	M7409	19991012	2700	117
2021565	DIGITAL READ DISPLAY	M7409	19991012	1670	117
0818471	GAUGE, VACUUM	M7409	19960731	2510	117
2026154	GAS, HAZARDOUS SYSTEM	MLP2	20010904	144250	7A
2026155	GAS, HAZARDOUS SYSTEM	MLP2	20010904	144250	7A
2026156	GAS, HAZARDOUS SYSTEM	MLP2	20010904	144250	7A
2026157	GAS, HAZARDOUS COMPONENT	M7409	20010904	144250	115
2026158	GAS, HAZARDOUS COMPONENT	M7409	20010904	144250	115
2026159	GAS, HAZARDOUS COMPONENT	M7409	20010904	144250	115
2026160	GAS, HAZARDOUS COMPONENT	M7409	20010904	144250	115
2026161	GAS, HAZARDOUS COMPONENT	M7409	20010904	144250	115
2026162	GAS, HAZARDOUS COMPONENT	M7409	20010904	144250	115
0012039	GENERATOR, FUNCTION	M7505	19881206	1450	1160
0012052	OSCILLOSCOPE, DIGITAL	M7505	19890116	4745	1160
0012053	OSCILLOSCOPE, DIGITAL	M7505	19890116	4745	1160
0012064	MULTIMETER, DIGITAL	M7505	19890215	1120	1160
0012065	MULTIMETER, DIGITAL	M7505	19890215	1120	1160
0026525	LABELMAKER	M7505	19961210	1095	1160
0026619	SCOPE, PORTABLE	M7557	19971210	925	112
0026620	SCOPE, PORTABLE	M7505	19970403	925	1160
0026630	POWER SUPPLY	M7505	19970403	1249	1160A
0026631	POWER SUPPLY	M7505	19970506	1249	1160
0026665	SOLDERING SYSTEM	M7505	19970619	785	1160A
0026666	SOLDERING SYSTEM	M7505	19970619	785	1160
0026716	CAMERA, COLOR CCD	M7505	19970822	1100	1160
0026893	COMPUTER SYSTEM, DIGITAL	M7505	19990712	2270	1160A
0026894	COMPUTER SYSTEM, DIGITAL	M7505	19990712	2270	1160A
0026895	COMPUTER SYSTEM, DIGITAL	M7505	19990712	2270	1160A
0026902	COMPUTER SYSTEM, DIGITAL	M7505	20010505	540	1160
0817798	PRINTER, ADP	TRM052	20010505	540	N/A
0818534	COMPUTER	TRM039	20010505	540	1
0867545	MONITOR, VIDEO, COLOR	M7505	19990816	1950	1160
0867592	ANALYZER, LOGIC	M7505	19990816	1950	1160
0876622	ANALYZER, PROTOCOL	M7505	20010706	2258	1160
1121249	ANEMOMETER	M7505	19940120	1300	1160
1128681	TRAILER, TOTE	M7505	19960814	975	YARD
1383064	SCOPEMETER	M7505	19960724	600	1160
1383090	PROGRAMMER	M7505	19960802	667	1160
1383137	MILLING MACHINE	M7505	19960802	667	M7457
1394370	CABINET, TOOL, MOBIL	M7505	19960802	667	1160

1504428	SOLDER STATION	M7505	19960730	3320	1160
1504463	COMPUTER	M7505	19960717	1255	1310
1504464	MONITOR	M7505	19960724	720	1310
1504586	INTERNET ADVISOR	M7505	19970728	1850	1160
1504619	COMPUTER	M7505	19970909	2460	1160A
1504620	MONITOR	M7505	19970909	1500	1160A
1504720	MONITOR	M7505	19960401	500	1160A
1659002	ANALYZER, RF	M7505	19980821	2300	1160
1869081	SANDER, DISC, BELT	M7607	19970808	1571	SHOP
2021380	SOLDERING UNIT	M7505	20000411	3515	1160
2022137	SOLDERING UNIT	M7505	20000411	3515	1160A
0011459	LENS, TELESCOPE	M7409	19901126	330	170B
0011460	LENS, TELESCOPE	M7409	19901126	330	170B
0011833	BORESCOPE	M7409	19890203	12750	170B
0011857	BORESCOPE	M7505	19881117	8425	1313
0011859	BORESCOPE	M7505	19881117	8425	1313
0026522	CAMERA	M7409	19961203	1795	170B
0026563	CAMERA, VIDEO	M7409	19970128	1190	170B
0026564	CAMERA, VIDEO	M7409	19970128	1190	STORG
0026571	CAMERA	M7409	19970226	1795	170B
0026634	CAMERA	M7409	19951102	1200	170B
0026635	CAMERA, VIDEO	M7409	19970523	1190	170B
0026636	CAMERA	M7409	19970515	1795	170B
0026651	OSCILLOSCOPE	M7409	19970604	925	170B
0026671	EXTERNAL COMPACT DISK	M7409	19970701	700	170B
0026673	COMPUTER, DIGITAL	M7409	19970701	879	170B
0026682	PRINTER	M7355	19970707	500	4281
0026684	COMPUTER	M7409	19970707	4429	170B
0026685	PRINTER	M7409	19970707	500	170B
0026690	COMPUTER	M6399	19970706	2490	3130
0046012	CAMERA, VIDEO, COLOR	M7409	19960405	1050	STORG
0046013	CAMERA, VIDEO, BLACK & WHITE	M7409	19960405	935	STORG
0104656	RECORDER, VIDEO	M7409	19890420	3045	170B
0161782	CAMERA, TELEVISION	M7409	19870407	2789	STORG
0162575	CAMERA, TELEVISION	M7409	19870713	639	170B
0162576	CAMERA CONTROL UNIT	M7409	19870713	1140	170B
0268514	PLOTTER, ADP	M7409	19861121	11610	STORG
0650099	VOLTMETER, DIGITAL	M7409	19771231	3208	STORG
0651463	MICROSCOPE	M7409	19751231	626	STORG
0651467	HOLOGRAPH SYS	M7409	19731231	4280	STORG
0651492	METER	M7409	19751231	893	170B
0658657	PLOTTER	M7409	19821231	12206	STORG
0690684	ACTIVATOR, ADHESIVE, UV	M7409	19801231	3666	170B
0788030	GENERATOR, PULSE	M7409	19781231	849	170B
0813347	BORESCOPE, 20" LONG ADJ	M7409	19911007	637	STORG
0813365	COLLIMATOR, AUTO	M7409	19911025	574	STORG
0814388	BORESCOPE	M7505	19900709	9150	1313
0816385	VOLTMETER, DIGITAL	M7409	19910405	385	170B
0816800	BOROSCOPE	M7505	19910807	9415	1313
0816852	READER, BARCODE	M7409	19920618	395	170B
0816920	CAMERA, VIDEO	M7409	19950126	1600	170B
0816921	CAMERA, VIDEO	M7409	19950126	1600	170B
0817660	CAMERA, 10M COLOR, MINIATURE	M7409	19930610	1920	170B
0817674	CAMERA, MINITURE	M7409	19930709	1920	170B
0817675	CAMERA, MINITURE	M7409	19930709	1920	170B

0817676	CAMERA, MINITURE	M7409	19930709	1920	170B
0817677	CAMERA, MINITURE	M7409	19930709	1920	170B
0817725	COMPUTER, MICRO, PORTABLE	M7409	19930805	7195	170B
0817805	SCANNER SYSTEM, OPTICAL	M7409	19931011	5925	170B
0817847	CAMERA UNIT	M7409	19940211	2210	170B
0817888	CAMERA, CCD COLOR	M7409	19890203	1630	170B
0817894	MICROSCOPE, VIDEO	M7409	19940713	2977	170B
0817895	METER, OPTICAL POWER	M7355	19940719	637	1213
0818373	MONITOR, VIDEO	M7409	19950718	1745	STORG
0818422	CAMERA	M7355	19960611	1795	1155
0818423	CAMERA	M7409	19960611	1795	STORG
0818424	CAMERA	M7409	19960611	1795	STORG
0818477	VCR	M7409	19960515	500	STORG
0818478	VCR	M7505	19960515	500	HIBAY
0818532	HARD DRIVE	M7409	19960716	500	170B
0862503	IMAGING SYSTEM, THERMAL	M7409	19880525	15474	STORG
0865057	LIGHT SOURCE	M7409	19890203	2400	STORG
0865157	LIGHT SOURCE, INTENSITY	M7409	19880823	2400	STORG
0865158	LIGHT SOURCE, INTENSITY	M7409	19880823	2400	170B
0865367	CAMERA, TELEVISION	M7409	19890206	6481	STORG
0865442	PRINTER, ADP	M7409	19890201	4937	STORG
0866116	CAMERA, VIDEO	M7409	19881117	3705	170B
0866117	CAMERA, VIDEO CCD	M7409	19881117	3705	170B
0867540	DISPLAY UNIT, COLOR	M7409	19900417	1098	STORG
0867974	DISK DRIVE UNIT	M7409	19910327	748	170B
0868002	OSCILLOSCOPE	M7409	19910405	1599	170B
0870405	OSCILLOSCOPE, ANALOG	M7409	19910614	2965	170B
1021530	CAMERA, VIDEO	M7409	19901009	1925	170B
1040855	CAMERA, VIDEO, COLOR	M7409	19910807	2981	170B
1040967	LIGHT SOURCE, 300W	M7409	19920214	3090	170B
1041971	GUN, OPIICURE, LIGHT	M7409	19911007	799	170B
1042289	CAMERA, OSCILLOSCOPE	M7409	19920211	250	170B
1128684	DISPLAY UNIT, COLOR	M7409	19940429	2100	170B
1128685	COMPUTER, DIGITAL	M7409	19940429	15400	170B
1128686	CAMERA CONTROL UNIT	M7409	19940429	4500	170B
1128687	CAMERA, INFRARED	M7409	19940429	49900	170B
1128743	UNINTERRUPTIBLE POWER SUPPLY	M7409	19940616	1716	170B
1128821	GAGE, HEIGHT, DIGITAL	M7409	19940706	538	170B
1128822	PRINTER, COLOR	M7505	19940701	7869	1307
1128886	COMPUTER SYSTEM, PORTABLE	M7409	19940811	5288	170B
1131470	DISPLAY UNIT, COLOR	M7409	19920603	695	STORG
1131542	FIND-R-SCOPE	M7409	19920714	1355	STORG
1131543	CAMERA, CCD COLOR	M7409	19920707	2580	STORG
1131609	DISPLAY UNIT, COLOR	M7409	19920721	592	STORG
1132048	MULTIMETER, DIGITAL, LCR	M7409	19930304	674	170B
1132055	CAMERA, VIDEO, CCD	M7409	19930322	1460	STORG
1132088	CAMERA, CCD, COLOR	M7409	19930412	1460	170B
1132089	CAMERA, CCD, COLOR	M7409	19930412	1460	170B
1132249	COMPUTER, TRANSPUTER	M7409	19930624	1770	170B
1132254	MONITOR, COLOR SVGA	M7409	19930628	930	STORG
1132266	MONITOR, VIDEO, COLOR	M7409	19930712	948	STORG
1132267	MONITOR, VIDEO, COLOR	M7409	19930712	948	STORG
1132268	MONITOR, VIDEO, COLOR	M7409	19930712	948	STORG
1132269	MONITOR, VIDEO, COLOR	M7505	19930712	948	HIBAY
1132270	MONITOR, VIDEO, COLOR	M7409	19930712	948	STORG

1132368	DISK DRIVE UNIT	M7409	19930802	2550	STORG
1132441	COMPUTER	M7505	19930824	1293	IVAN
1143039	COMPUTER, DIGITAL	M7409	19930607	4483	STORG
1373285	DISPLAY UNIT, COLOR	M7409	19931018	1115	STORG
1375330	SAW, BAND	M7505	19940713	1499	1313
1379715	COMPUTER, PORTABLE	M7409	19940912	19379	STORG
1379716	INTERFACE UNIT	M7409	19940919	2213	STORG
1379812	COMPUTER, DIGITAL	M7505	19940929	2055	1313
1383061	RECORDER, VIDEO	M7409	19950222	530	170B
1383068	HEADSET, VIRTUAL REALITY	M7409	19950310	568	170B
1383069	TRACKER	M7409	19950310	1299	170B
1383086	POWER SUPPLY	K6848	19950322	2045	1A11
1383120	SOLDER STATION	M7409	19950420	1372	170B
1383124	CAMERA, VIDEO, MICRO	M7409	19950427	1600	170B
1383125	CAMERA, VIDEO, MICRO	M7409	19950427	1600	170B
1383199	CPU	M7409	19950626	1130	STORG
1383200	CPU	M7409	19950626	1130	STORG
1383242	CPU, POWERMAC	M7409	19950724	1612	STORG
1383325	ANALYZER	K6848	19950814	15795	1A11
1383352	CAMERA, CCD, COLOR	M7409	19950818	1860	170B
1383359	CAMERA, CCD, COLOR	M7409	19950818	1860	170B
1383393	MONITOR	M7409	19950817	2099	170B
1383411	CAMERA, CCD, COLOR	M7409	19950818	1860	STORG
1383445	SCANNER, FLAT BED	M7505	19950804	999	1308
1383449	MONITOR, VIDEO	M7505	19950905	2495	CNTRM
1383536	TEST EQUIPMENT	M7409	19950928	57120	STORG
1383552	PRINTER	M7409	19950929	865	STORG
1383578	MONITOR	M7505	19950209	110	1313
1383585	SCALE, ELECTRONIC BENCH	M7409	19951213	687	170B
1383587	STATIC METER	M7409	19951215	399	170B
1393347	MULTIMETER, DIGITAL	M7409	19950929	1395	STORG
1504430	COMPUTER	M7409	19970107	1199	STORG
1504485	POWER SUPPLY	M7409	19970530	2099	STORG
1504500	MONITOR	M7409	19970701	724	170B
1504621	COMPUTER	M7409	19970908	834	170B
1504634	JUKEBOX, CD-ROM	M7505	19970916	12499	1307
1504640	MONITOR	M7409	19970917	625	170B
1504641	COMPUTER	M7409	19970917	2838	170B
1504690	COMPUTER, DIGITAL	M7409	19971117	3616	170B
1504904	PLOTTER, COLOR	TRM017	19960715	5880	OFFIC
1504906	MONITOR	TRM017	19960703	455	OFFIC
1660304	CAMERA SYSTEM	M7505	19920820	900	1314
1660306	SCOPE	M7505	19950601	4100	1314
1871521	DISPLAY UNIT, COLOR, 21"	M7409	19920624	2889	170B
1872399	CONTROLLER, PROGRAMMABLE	M7409	19980225	2250	170B
1979291	COMPUTER, DIGITAL	M7409	19980812	575	STORG
1979292	DISPLAY UNIT, COLOR	M7409	19980812	625	STORG
1981304	OSCILLOSCOPE, DIGITAL	M7409	19990622	1842	170B
1981374	COMPUTER, DIGITAL	M7409	20000719	1279	170B
1981385	PRINTER, ADP	M7409	20011211	2327	170B
0026497	MULTIMETER	M7505	19961030	283	1307
0026498	INSULATION TESTER	M7505	19961030	1930	1314A
0026516	HARD DRIVE	M7505	19961126	600	1313
0026519	HARD DRIVE	TRM052	19961126	600	N/A
0026589	POWER SUPPLY	M7505	19970401	1345	1307

0026627	COMPUTER	M7505	19970425	5900	1313
0026639	COMPUTER	M7505	19970528	1984	1160A
0026655	HARD DRIVE	TRM039	19970609	385	N/A
0026693	SCANNER, COLOR	M7505	19970719	653	1307
0026696	COMPUTER	M7505	19970719	3985	1313
0026709	MULTIMETER	M7505	19970729	613	1307
0026710	SCOPE METER	M7505	19970729	3076	1307
0026718	COMPUTER	M7505	19970730	2835	1307
0026791	VACUUM GAUGE CONTROLLER	M7505	19970915	875	PNEUM
0026799	RECORDER, DATA	M7409	19970915	19200	128
0026803	MULTIMETER, DIGITAL	M7505	19970919	323	SHOP
0026804	MULTIMETER, DIGITAL	M7505	19970919	323	1314
0026824	DISK DRIVE, CD-ROM	M7505	19980304	329	1308
0026860	CALIBRATOR	M7557	19980824	2230	112
0026899	COMPUTER, DIGITAL, NOTEBOOK	M6399	19981112	3541	3453K
0026965	COMPUTER SYSTEM, DIGITAL	M7557	19930903	4314	112
0026967	COMPUTER SYSTEM, DIGITAL	M6399	19941013	10780	3540
0026977	COMPUTER, DIGITAL	M7505	19961030	283	1313
0026980	COMPUTER, DIGITAL	M7505	19961030	1930	1313
0026981	DISPLAY UNIT, COLOR	M7505	19960611	779	1313
0027021	COMPUTER SYSTEM, DIGITAL	M7505	19961126	600	1160A
0027026	RECORDER	M7505	19961126	600	1160A
0816434	DATA RECORDER	M7557	19840827	2168	VIBAC
0817763	COMPUTER SYSTEM, NOTEBOOK	M7505	20001110	6118	MSHOP
0818421	HARD DRIVE, EXTERNAL	M7505	20001110	1119	1308
0818501	PRINTER	M7505	20001110	1119	1314
0861968	CLOCK DISPLAY, SATELLITE SCHCH	M7505	19970305	5500	1307
0865084	DISK MEMORY UNIT	M7505	19980113	4000	1308
0866625	MONITOR, COLOR, VIDEO, 20"	M7505	19980402	242	1310
0867531	MONITOR, COLOR, VIDEO, 20"	M7505	19900601	2614	1157
0867761	COMPUTER, DIGITAL	M7505	19970422	5150	1313
0867950	DISPLAY UNIT	M7505	19970425	5900	1307
0870441	DISPLAY UNIT, COLOR	M7505	19970401	1345	1307
1121763	PRINTER, LASERJET III	M7505	19970415	4165	TR052
1128568	DISPLAY UNIT, COLOR	M7505	19970401	690	1157
1128876	DISPLAY UNIT, COLOR	M7505A	19970418	2274	1
1131814	CHASSIS, 8 CHANNEL ELIP.FILTER	M7505	19890203	3652	1157
1131815	CHASSIS, 8 CHANNEL ELIP.FILTER	M7505	19970609	385	1157
1131816	CHASSIS, 8 CHANNEL ELIP.FILTER	M7505	19980204	11900	1157
1131817	CHASSIS, 8 CHANNEL ELIP.FILTER	M7505	19940726	2080	1157
1132091	DATA LOGGER	M7505	19990415	600000	1307
1132104	DISPLAY UNIT, COLOR 16"	M7505	19930507	22800	1157
1132105	DISPLAY UNIT, COLOR 16"	M7505	19990408	3545	1157
1132108	DISPLAY UNIT, COLOR 16"	M7505	19990305	1438	1157
1132497	DISPLAY UNIT, COLOR	M7505	19911023	39018	1157
1142495	COMPUTER, DIGITAL	M7505	19911009	24793	SHOP
1375409	DISK DRIVE UNIT, CD-ROM	M7505	19970908	24990	CADRM
1383015	MONITOR	M7505	19960502	749	1157
1383016	MONITOR	M7505	19940723	592	1307
1383017	MONITOR	M7505	19970915	875	1157
1383018	MONITOR	M7505	19970905	2695	1157
1383338	CD RECORDER	M7505	19970905	1935	1307
1383356	MONITOR	M7505	19970909	2460	1307
1383382	CPU	M7505	19970909	1500	1313
1389179	POWER SUPPLY	M7505	19910925	4125	1307

1393005	COMPUTER, DIGITAL	M7505	19970916	1121	1310
1393286	COMPUTER, DIGITAL	M7505	19920310	1220	1310
1393312	COMPUTER, DIGITAL	M7505	19920310	1822	1310
1394395	COMPUTER, DIGITAL	M7505	19920310	1995	1310
1394397	COMPUTER, DIGITAL	M7505	20010201	6995	1310
1394465	DISPLAY UNIT, COLOR	M7505	20010201	5325	SHOP
1504405	MONITOR	M7505	20010201	24500	PRORM
1504440	MONITOR	M7505	20010201	2814	BKRM
1504449	COMPUTER	M7505	20010201	33500	1157
1504460	MONITOR	M7505	20010201	12600	1307
1504481	MONITOR	M7505	19920721	1521	1160A
1504537	CONTROLLER	M7581	19970729	1950	114
1504615	SCALE BASE	M6595	19970905	2695	UPSTR
1504616	CONTROLLER, TERMINAL	M6595	19970909	2460	UPSTR
1504909	MONITOR	M7505	19960814	975	1310
1504918	PLOTTER	M7505	19960520	900	PRORM
1504962	UPS	M7505	19960918	1120	1307
1504972	DISPLAY UNIT, COLOR	M7505	19960928	500	1157
1504974	DISPLAY UNIT, COLOR	M7505	19960928	500	1307
1504975	COMPUTER	M7505	19960928	6499	1307
1504977	DISPLAY UNIT, COLOR	M7505	19960928	500	1157
1504978	DISPLAY UNIT, COLOR	M7557	19960928	500	107
1613621	PRINTER	M7505	19930301	3495	1314
1865933	DISPLAY UNIT, COLOR	M7505	19970217	2863	1310
1868126	DISPLAY UNIT, COLOR	M7505	19970717	734	1157
1870433	TERMINAL, ADP	M7505	19970916	1121	1310
1872359	COMPUTER, DIGITAL	M7505	19980128	2461	1307
1872360	DISPLAY UNIT, COLOR	M7505	19980128	1586	1157
1872362	DISPLAY UNIT, COLOR	TRM052	19980128	1586	N/A
1872387	PRINTER, ADP	M7409	19980402	242	240
1872401	ROUTER, NETWORK, COMM	M7505	19980505	1183	1308
1872428	DISPLAY UNIT, COLOR	M7505	19980522	1492	1310
1872432	COMPUTER, DIGITAL	TRM052	19980626	3600	N/A
1872433	COMPUTER, DIGITAL	M7505A	19980522	3169	1
1979247	DISPLAY UNIT, COLOR	TRM052	19980630	1505	N/A
1979258	COMPUTER SYSTEM, DIGITAL	M7505	19980707	3640	1308
1979259	COMPUTER SYSTEM, DIGITAL	M7505	19980707	3640	1308
1979261	PRINTER, ADP	M7581	19980720	932	114
1979302	PRINTER, ADP	M7505	19980807	1242	1157
1979308	PRINTER, ADP	M7505	19980811	3380	1307
1979774	COMPUTER, DIGITAL	M7581	19980821	1810	114
1979775	DISPLAY UNIT, COLOR	M7581	19980821	1500	114
1979787	PRINTER, ADP	M7505	19980827	300	CADRM
1979809	DISPLAY UNIT, COLOR	TRM017	19980908	1500	104
1979810	DISPLAY UNIT, COLOR	TRM052	19980908	1500	N/A
1979811	DISPLAY UNIT, COLOR	M7557	19980909	1495	203
1979834	COMPUTER, DIGITAL	M7557	19980917	3165	203
1981234	BALANCE	M7557	19981116	1795	105
1981238	DISPLAY UNIT, COLOR	M7581	19981119	380	114
1981239	DISPLAY UNIT, COLOR	M7557	1981119	680	108
1981240	COMPUTER, DIGITAL	M7505	1981124	3331	1307
1981241	COMPUTER, DIGITAL	M7581	19981124	3208	114
1981266	COMPUTER, DIGITAL	M7505A	19990408	3545	1
1981275	DISPLAY UNIT, COLOR	M7505	19990526	560	1157
1981276	COMPUTER, DIGITAL	M7505	19990526	2890	1157

1981344	COMPUTER, DIGITAL	M7505	19920603	1616	BKRM
1981345	DISPLAY UNIT, COLOR	M7505	19980626	3600	1310
1981350	SERVER, NETWORK	M7557	19980630	1505	108
1981355	COMPUTER, DIGITAL	M7557	19980707	3640	112
1981356	DISPLAY UNIT, COLOR	M7557	19980707	3640	112
1981357	COMPUTER, DIGITAL	M7557	19920814	1225	112
1981358	DISPLAY UNIT, COLOR	M7557	19920804	1250	112
1981359	ROUTER, NETWORK	M7557	19950603	848	108
1981360	DISPLAY UNIT, COLOR	M7557	19930720	2329	104
1981361	COMPUTER, DIGITAL	M7557	19930720	2329	203
1981362	COMPUTER, DIGITAL	M7557	19930720	2329	105
1981364	COMPUTER, DIGITAL	M7557	19930720	2329	104
1981365	DISPLAY UNIT, COLOR	M7557	19881117	1230	105
1981368	COMPUTER, DIGITAL	M7607	19880823	3652	SHOP
1981371	COMPUTER, DIGITAL	M7607	20010212	5172	SHOP
1981372	COMPUTER, DIGITAL	M7505	20010212	11496	BKRM
2023306	COMPUTER SYSTEM, DIGITAL	M7557	20010212	8193	112
2023965	PROJECTOR, VIDEO	TRM017	20010212	3488	112
2023978	DISPLAY UNIT, COLOR	TRM017	20010212	12173	112
2023979	COMPUTER, DIGITAL	TRM017	20010212	787	112
2023999	CONTROLLER	M7505	20010212	11651	1308
2024012	RECORDER, VIDEO CASSETTE	M7505	20010212	1721	1157
2024013	RECORDER, VIDEO CASSETTE	M7505	20010228	4000	1157
2024014	RECORDER, VIDEO CASSETTE	M7505	20010228	1140	1157
2024054	COMPUTER, DIGITAL	M7505	19970919	323	FRIV
2024081	RECORDER, DATA	M7505	19970919	323	1160A
2024158	COMPUTER, DIGITAL	M7505	19930629	4000	1313
2024159	DISPLAY UNIT, COLOR	M7505	19930420	1115	1313
2026244	DISPLAY UNIT, COLOR	M7581	19970729	1950	114
0011438	DRILL, MAGNETIC	M7505	19860715	10000	MECHS
0011439	DRILL, MAGNETIC	M7505	19930810	33156	MECHS
0011482	FILER, RECIPROCATING, PNEU	M7409	19930922	1300	130
0026624	PORTABLE GAUGE TEST PUMP	M7505	19930910	33130	PSHOP
0027022	CONTROLLER, PRESSURE FLOW	M7557	19930804	5787	CRYOL
0027040	METER, VACUUM	M7505	19940622	882	PSHOP
0027041	METER, VACUUM	M7505	19940819	1186	SHOP
0027047	METER, VACUUM	M7505	19940810	1980	SHOP
0027048	METER, VACUUM	M7505	19880223	4955	SHOP
0162864	CUTTER, ABRASIVE	M7505	19880223	4466	MSHOP
0163368	SURFACE PLATE, GRANITE	M7505	19880223	6042	MSHOP
0163535	COMPARATOR, OPTICAL	M7505	19950331	2292	MSHOP
0165042	SOLDERING/WELDING UNIT	M7505	19950822	3295	ESHOP
0165050	INDICATOR, STRAIN	M7505	19950818	3464	ESHOP
0165125	BANDSAW	M7505	19950818	765	MSHOP
0165153	INCLINOMETER	M7505	19960523	18727	MECHS
0165418	HEATER	M7505	19960719	3800	YARD
0165419	CONTROLLER, HEATER	M7505	19960716	1500	YARD
0165420	CONTROLLER, HEATER	M7505	19960722	2019	YARD
0165432	SANDER	M7505	19990712	2270	MSHOP
0165433	FORMING MACHINE	M7505	19960724	2750	PSHOP
0165434	BENDING MACHINE	M7505	19980223	705	PSHOP
0268584	GAGE, VACUUM	M7505	19861107	502	PSHOP
0268585	GAGE, VACUUM	M7505	19861107	502	PSHOP
0401707	PUNCH SYS	M7409	19831015	3750	130
0401718	TEST SET	M7505	19831015	808	CSHOP

0488156	TRAILER, LOW BED	M638	19861118	6131	YARD
0500487	LIFT TABLE HYDRAULIC	M7557	19850517	1450	WSHOP
0620919	PUNCHING MACH	M7409	19841107	3750	130
0632088	TESTER	M7505	19840613	727	ESHOP
0651262	PLATEN	M7557	19701231	1085	WSHOP
0651449	MICROSCOPE	M7505	19711231	758	PSHOP
0651711	LATHE	M7409	19701231	5539	130
0651712	SAW, BAND	M7409	19711231	1100	130
0653108	MILLING MACHINE	M7505	19731231	9730	MSHOP
0653110	PRESS	M7505	19751231	1166	MSHOP
0654305	COMPARATOR	M7505	19701231	1710	MSHOP
0668144	DETECTOR	M7505	19840904	950	PSHOP
0695846	AMPL-CALIBRATOR	M7505	19841105	6402	PSHOP
0698582	PUMP	M7557	19840827	2168	HIBAY
0748763	LATHE	M7505	19850325	11700	MSHOP
0817678	DETECTOR, LEAK	M7505	19930709	1600	PSHOP
0817683	TESTER	M7505	19930715	738	ESHOP
0817684	TESTER, MEGGER	M7505	19930715	738	ESHOP
0817711	PUMP, TURBO	M7557	19930730	3010	HIBAY
0817712	PUMP, TURBO	M7557	19930730	3010	HIBAY
0817713	CONVERTER	M7557	19930730	1195	HIBAY
0817812	MULTIMETER, DIGITAL	M7505	19931122	459	MSHOP
0817878	MULTIMETER, BENCH	M7557	19940622	665	CRYOL
0818455	TELESCOPE	M7557	19960502	749	WSHOP
0818490	STARTER, ARC	M7557	19960724	720	WSHOP
0818529	SOLDERING STATION	M7505	19960716	1500	ESHOP
0818535	SCOPEMETER	M7505	19960722	2019	ESHOP
0861622	DRILLING MACHINE	M7505	19880225	17409	MSHOP
0863190	TORCH, TRACK	M7557	19900330	858	WSHOP
0863336	FLOWMETER	M7557	19901205	1577	HIBAY
0863337	FLOWMETER	M7557	19901127	1577	HIBAY
0863339	FLOWMETER	M7557	19901127	1577	HIBAY
0863451	GRINDER	M7505	19920310	1822	MSHOP
0863454	WELDING MACHINE	M7557	19920310	1995	WSHOP
0864703	CRYOGENIC REFRIGERATION SYS	M638	19881019	381007	YARD
0864709	SHEARING MACHINE	M7557	19881103	39500	WSHOP
0866135	VACUUM PUMP	M7505	19890531	8850	PSHOP
0867070	MILLING MACHINE	M7505	19880223	3236	MSHOP
0867525	PUMP, VACUUM	M7505	19900227	4950	PSHOP
0867612	POWER SUPPLY	M7505	19900717	1960	ESHOP
0867660	DYNAMOMETER, 30000LB	M7505	19900730	1462	MECHS
0867661	DYNAMOMETER, 50000LB	M7505	19900730	1462	MECHS
0867715	HYGROMETER	M7505	19900926	6590	PSHOP
0867821	DYNAMOMETER, 100,000 LB	M7505	19900126	3353	MECHS
0868023	ICE MACHINE	M7505	19910508	3172	MSHOP
0869615	SAW, CUTOFF	M7505	19890619	259	PSHOP
0870080	PUMP	M7557	19890810	1080	HIBAY
0870081	PUMP	M7557	19890810	1080	HIBAY
0876007	CRANE, TRUCK MTD, 65T	M7505	19880830	298627	1304
0876757	SHARPENER, TOOL	M7409	19890119	649	130
0884679	DYNAMOMETER	M7505	19891130	8600	YARD
1027817	TEST STAND, GASCOMP	M638	19990415	600000	PATIO
1032657	ANALYZER, OXYGEN	M7557	19910813	3736	HIBAY
1040910	LATHE	M7505	19911009	24793	MSHOP
1040911	MILLING MACHINE	M7505	19911009	39197	MSHOP

1040925	FORKLIFT	M7505	19911023	39018	YARD
1120829	COUNTER, DIGIPAC	M7505	19920310	1220	MSHOP
1128558	ANALYZER, MOISTURE	M7557	19931220	9000	HIBAY
1128744	READOUT, DIGITAL	M7505	19940628	2169	MSHOP
1128885	TORUE DRIVER	M7505	19940830	6339	MECHS
1128894	VENTILLATION SYSTEM, PORTABLE	M7409	19940810	1980	130
1131235	ADAPTER, PROOFLOAD	M7505	19930407	2000	YARD
1131605	SANDER, POWERMATIC	M7409	19920721	1521	130
1131739	ARC WELDER	M7557	19920902	2350	WSHOP
1131776	MILLING MACHINE, EZ TRAK SX	M7505	19930507	22800	MSHOP
1131828	LIFT, TELESCOPIC BOOM	M7505	19921019	73695	YARD
1131891	READOUT, DITITAL	M7505	19930105	1848	MSHOP
1132094	WELDER, CC/CV	M7557	19930419	1877	WSHOP
1132095	WIRE FEEDER	M7557	19930419	699	WSHOP
1132224	SENSOR, MOISTURE	M7557	19930616	2499	CRYOL
1132288	BRAKE, 60-TON	M7505	19930630	37033	MSHOP
1132289	DRILL PRESS	M7557	19930720	3015	WSHOP
1132320	SCALE, DIGITAL, 3PCS.	M7505	19930630	12290	HIBAY
1132400	WELDING MACHINE, COBRAMIG 250	M7557	19930806	3906	WSHOP
1132401	BAND SAW, MARK II	M7557	19930809	16830	WSHOP
1132402	PUNCH, EUROMAC	M7505	19930810	33156	MSHOP
1132483	MACHINE, PIPE THREADING	M7505	19930908	6032	MECHS
1132488	LATHE, AUTO. TURNING CENTER	M7505	19930910	83650	MSHOP
1132489	MILLING MACHINE, COMPUTERIZED	M7505	19930910	33130	MSHOP
1132490	PUMP, VACUUM	M7505	19930917	13600	PSHOP
1132492	PUMP, W/MOTOR AND CONTROLLER	M7505	19930928	20300	YARD
1373562	PRESS BRAKE, POWER OPERATED	M7505	19931122	22155	MSHOP
1378542	MILLING MACHINE	M7409	19941013	10780	130
1379702	GRINDER	M7557	19940819	1186	WSHOP
1379703	LATHE	M7409	19940819	23445	130
1379796	PIPE FINISHING/FLARING MACHINE	M7505	19940928	19765	PSHOP
1379797	IRONWORKER	M7557	19941005	18960	WSHOP
1379799	TORCH, TRACK	M7557	19941005	1400	WSHOP
1383096	WELDER	M7557	19910305	1499	WSHOP
1383258	LATHE	M7505	19910305	651	MSHOP
1383310	WELDER	M7557	19960523	18727	WSHOP
1383311	WELDER, TIG	M7557	19910508	3172	WSHOP
1383322	WELDER	M7557	19910509	2891	WSHOP
1383357	DRILL, PORTABLE	M7505	19910509	2891	MECHS
1383435	MILLING MACHINE	M7505	19910509	2891	MSHOP
1383560	POWER SUPPLY	M7505	19880225	17409	ESHOP
1391538	DRILL, ELECTROMAGNETIC	M7409	19930806	3906	130
1504413	AIR CLEANER	M7557	19970403	925	WSHOP
1504524	WELDER	M7557	19970403	925	WSHOP
1504526	TUNGSTEN ELECTRODE GRINDER	M7557	19970717	734	WSHOP
1504628	MILLING MACHINE	M7409	19970217	2863	130
1504870	WEIDER	M7557	19890619	259	WSHOP
1504882	WELDER	M7557	19890810	1080	WSHOP
1504981	POWER SOURCE, PLASMA ARC	M7557	19890810	1080	WSHOP
1516126	CABINET, TOOL, MOBILE	M7505	19890925	557	MSHOP
1660305	MULTIMETER, DIGITAL	M7505	19910722	646	MSHOP
1660307	PUMP, VACUUM	M7505	19910726	4125	PSHOP
1660308	PUMP, VACUUM	M7505	19981124	3331	PSHOP
1660335	GRINDER, ANGLE	M7505	19981124	3202	MECHS
1860485	FWD ADAPT/LOAD CELL ORB TO MST	M638	19981119	680	PATIO

1860486	AFT ADAPT/LOAD CELL ORB TO SAB	M638	19981119	680	PATIO
1872364	BENDING MACHINE, TUBE, PORT	M7505	19980529	2795	PSHOP
1872384	PALLET, HOLD DOWN POST	M7505	19980522	3169	YARD
1872385	BEAD BLASTER	M7557	19850525	29850	WSHOP
1978731	CHILLER, RECIRCULATING	M638	19890203	1230	PATIO
1979279	FLARING MACHINE	M7505	19940628	2169	PSHOP
1979283	DYNAMOMETER, DIGITAL	M7505	19940622	665	MECHS
1979284	DYNAMOMETER, DIGITAL	M7505	19950829	1268	MECHS
1979285	DYNAMOMETER, DIGITAL	M7505	19950920	52796	MECHS
1979293	DYNAMOMETER, DIGITAL	M7505	19920309	2500	MECHS
1979294	DYNAMOMETER, DIGITAL	M7505	19910813	3736	MECHS
1979295	DYNAMOMETER, DIGITAL	M7505	20000829	1237	MECHS
1979310	WELDING MACHINE, ORBITAL	M7557	20000829	2559	WSHOP
1981219	WELDING MACHINE	M7557	20000829	2559	WSHOP
1981220	WELDING MACHINE	M7557	19881209	20064	WSHOP
1981221	CUTTING MACHINE, PIPE	M7505	19890119	649	WSHOP
1981242	MACHINE, ELECTROSTATIC DISCHARG	M7505	20000907	1010	MSHOP
1981243	MACHINE, ELECTROSTATIC SINKER	M7505	20000907	1835	MSHOP
1981244	MILLING MACHINE	M7409	19891130	8600	130
1981326	TRANSMITTER, COMPACT	M7505	19931122	22155	FTSYS
1981327	TRANSMITTER, COMPACT	M7505	19911009	39197	FTSYS
1981367	EMBOSSING MACHINE	M7505	19980324	520	PSHOP
2023321	SHELTER, EQUIPMENT	M7505	19980311	6719	YARD
2023322	PLUG, DIVER OPERATED	M638	19980327	1095	YARD
2023323	READOUT, DIGITAL	M7505	19980324	7000	MSHOP
2023327	MILLING MACHINE	M7505	19980909	28585	MSHOP
2023981	EMBOSSING MACHINE	M7505	19980922	31804	PSHOP
2023982	SHEAR, HYDRAULIC	M7505	19980924	172000	MSHOP
2023985	WELDING MACHINE	M7557	19981116	1795	WSHOP
2023989	MILLING MACHINE	M7505	20010201	24500	MSHOP
2023994	LABELING MACHINE	M7557	20010201	5325	HIBAY
2024070	CONTROLLER, PRESSURE FLOW	M7557	20011127	1650	CRYOL
2024071	CONTROLLER, PRESSURE FLOW	M7557	20011127	1650	CRYOL
2024072	CONTROLLER, PRESSURE FLOW	M7557	20011127	1650	CRYOL
2024147	POWER SUPPLY	M7557	20020107	1045	CRYO
2024148	POWER SUPPLY	M7557	20020107	1045	CRYO
2024149	MANOMETER	M7505	20020107	865	CRYO
2024150	MANOMETER	M7505	20020107	1565	CRYO
2024152	FLARING MACHINE, TUBE	M7505	20020107	20500	SHOP
2024153	FLARING MACHINE, TUBE	M7505	20020107	20500	SHOP
2026278	WRENCH, IMPACT	M7505	19921007	710	MECHS
2026279	WRENCH, IMPACT, PNEUMATIC, 1"	M7505	19890925	557	MECHS
2026280	FLEX GRINDER	M7505	19940830	882	MECHS
2026281	CHUCK	M7505	19880308	1260	MSHOP
2026285	CRANE, MOBILE, 50 TON	M7505	19930726	185000	YARD
0011349	FLOWMETER	M7505	19890605	1577	1307
0011411	INDICATOR, STRAIN, PORTABLE	M7505	19880603	1095	1307
0011445	MULTIMETER, DIGITAL	M7505	19900709	269	1307
0011446	MULTIMETER, DIGITAL	M7505	19900709	269	1307
0011447	MULTIMETER, DIGITAL	M7505	19900709	269	1307
0011684	OSCILLOSCOPE	M7505	19880223	4955	IVAN
0011735	TAPE UNIT, SEARCH AND CONTROL	M7505	19901126	16630	1157
0026609	COMPUTER	M7505	19970415	4165	1313
0026610	COMPUTER, NOTEBOOK	M7505	19970418	2274	1313
0026825	DISK DRIVE UNIT, CD-RW	M7505	19980324	520	1308

0026827	DISK DRIVE UNIT,ZIP	M7505	19980430	267	TR039
0027046	CAMERA, DIGITAL	M7505	20020225	999	240
0161152	PRINTER, ADP	M7505	20010212	787	1307
0161697	STROBOSCOPE, DIGITAL	M7505	19870326	6010	1307
0164908	RACK	M7505	19880223	16750	1157
0164909	PANEL, FUSE	M7505	19880223	13400	1157
0164911	CHARGING UNIT, HYDR	M7505	19880223	33500	1157
0164912	CONSOLE, MLP/LETF	M7505	19880223	600000	1157
0164913	RACK, DC	M7505	19880223	1550	1157
0164914	FRAME, DC	M7505	19880223	1250	1157
0164915	MODULE, DC	M7505	19880223	1250	1157
0164916	MODULE, DC	M7505	19880223	1250	1157
0164918	MODULE, DC	M7505	19880223	4466	1157
0164919	MODULE, DC	M7505	19880223	1250	1157
0164921	DISTRIBUTOR	M7505	19880223	6700	1157
0164922	POWER SUPPLY	M7505	19880223	33500	1157
0164924	RACK, DC	M7505	19880223	1000	1157
0164925	MODULE, DC	M7505	19880223	1250	1157
0164926	MODULE, DC	M7505	19880223	4466	1157
0164927	MODULE, DC	M7505	19880223	1250	1157
0164928	MODULE, DC	M7505	19880223	1250	1157
0164929	MODULE, DC	M7505	19880223	4466	1157
0164930	RECEPTACLE, DISTRIBUTOR	M7505	19880223	4000	1157
0164931	FRAME, DC	M7505	19880223	1250	1157
0164932	DISTRIBUTOR	M7505	19880223	6700	1157
0164933	POWER SUPPLY	M7505	19880223	9000	1157
0164935	ENCLOSURE, RFI	M7505	19880223	1550	1157
0164936	RECORDER	M7505	19880223	3716	1157
0164939	ENCLOSURE, RFI	M7505	19880223	1550	1157
0164941	PANEL, POWER SUPPLY	M7505	19880223	1500	1157
0164942	CONTROL PANEL, TSM	M7505	19880223	5000	1157
0164944	CONTROL PANEL, TSM	M7505	19880223	5000	1157
0164946	ENCLOSURE, RFI	M7505	19880223	1550	1157
0164948	CONTROL, LIFT-OFF SIMULATION	M7505	19880223	2500	1157
0164949	AMPLIFIER, LIFT-OFF SIMULATION	M7505	19880223	2500	1157
0164950	ENCLOSURE, RFI	M7505	N/A	N/A	1157
0164953	RACK, DISTRIBUTOR	M7505	19880223	13400	1157
0164954	PANEL, FUSE	M7505	19880223	16750	1157
0164955	RACK, DISTRIBUTOR	M7505	19880223	22334	1157
0164956	PANEL, FUSE	M7505	19880223	13400	1157
0164957	PANEL, FUSE	M7505	19880223	3941	1157
0164958	PANEL, FUSE	M7505	19880223	3941	1157
0164959	PANEL, FUSE	M7505	19880223	13400	1157
0164960	PANEL, FUSE	M7505	19880223	13400	1157
0164963	TESTER,VOLTAGE STRAY	M7505	19880223	1907	1307
0164964	ENCLOSURE, RFI	M7505	19880223	1000	1157
0164965	DISTRIBUTOR, TERMINAL	M7505	19880223	1500	1157
0164966	ENCLOSURE, RFI	M7505	19880223	1550	1157
0164979	ENCLOSURE, RFI	M7505	19880223	1550	1157
0165007	CONTROLLER, SCA	M7505	19880223	12395	1307
0165010	MULTIMETER	M7505	19880223	649	1314
0165030	CAPACITOR, DECADE	M7505	19880223	950	1307
0165077	ENCLOSURE, RFI	M7505	19880223	1550	1157
0165089	ENCLOSURE, RFI	M7505	19880223	1550	1157
0165101	ENCLOSURE, RFI	M7505	19880223	1550	1157

0165167	MODULE, DC	M7505	19880223	1250	1157
0165224	RECORDER	M7505	19880223	51720	IVAN
0165225	TERMINAL	M7505	19880223	1695	IVAN
0165227	MODULATION SYSTEM	M7505	19880223	105000	IVAN
0165231	CONTROLLER, SCA	M7505	19880223	12395	1157
0165233	MULTIPLEXER, ENCODER	M7505	19880223	40255	IVAN
0165235	CONTROLLER	M7505	19880223	32618	IVAN
0165236	SWITCH	M7505	19880223	32618	IVAN
0165238	RECORDER	M7505	19880223	14843	IVAN
0165239	RECORDER	M7505	19880223	14843	IVAN
0165240	RECORDER	M7505	19880223	14843	IVAN
0165242	RECORDER	M7505	19880223	14843	IVAN
0165243	RECORDER	M7505	19880223	14843	IVAN
0165244	RECORDER	M7505	19880223	14843	IVAN
0165245	RECORDER	M7505	19880223	51720	IVAN
0165246	VAN W/ACCESSORIES	M7505	19880223	329435	YARD
0165264	ENCLOSURE, RFI	M7505	19880223	1550	1157
0165266	ENCLOSURE, RFI	M7505	19880223	1550	1157
0165268	ENCLOSURE, RFI	M7505	19880223	1550	1157
0165278	RECORDER	M7505	19880223	67000	1157
0165283	ENCLOSURE, RFI	M7505	19880223	1550	1157
0165287	ENCLOSURE, RFI	M7505	19880223	1550	1157
0165313	ENCLOSURE, RFI	M7505	19880223	1550	1157
0165316	ENCLOSURE, RFI	M7505	19880223	9574	1157
0165319	OSCILLOGRAPH	M7505	19880223	12674	1157
0165320	OSCILLOGRAPH	M7505	19880223	12674	1157
0165321	ENCLOSURE, RFI	M7505	19880223	22334	1157
0165324	OSCILLOGRAPH	M7505	19880223	12674	1157
0165331	ENCLOSURE, RFI	M7505	19880223	1550	1157
0165337	OSCILLOGRAPH CALIBRATION SYSTE	M7505	19880223	1500	1157
0165339	OSCILLOGRAPH	M7505	19880223	12647	1157
0165340	OSCILLOGRAPH	M7505	19880223	12647	1157
0165342	OSCILLOGRAPH CALIBRATION SYSTE	M7505	19880223	1500	1157
0165347	OSCILLOGRAPH CALIBRATION SYSTE	M7505	19880223	1500	1157
0165348	OSCILLOGRAPH	M7505	19880223	12647	1157
0165351	RECORDER	M7505	19880223	6042	1157
0165352	RECORDER	M7505	19880223	6042	1157
0165353	RECORDER	M7505	19880223	6042	1157
0165354	RECORDER	M7505	19880223	6042	1157
0165360	ENCLOSURE, RFI	M7505	19880223	1550	1157
0165364	ENCLOSURE, RFI	M7505	19880223	1550	1157
0165366	ENCLOSURE, RFI	M7505	19880223	1555	1157
0165392	ENCLOSURE, RFI	M7505	19880223	1550	1157
0165405	CONTROL RACK, PYRO INITIATOR	EAFB	19880223	10000	N/A
0165406	CONTROL RACK, PYRO INITIATOR	M7505	19880223	500000	1157
0165407	ENCLOSURE, RFI	M7505	19880223	1500	1157
0165408	TEST SET PANEL, PIC SYSTEM, A	M7505	19880223	2000	1157
0165410	TEST SET PANEL, PIC SYSTEM, B	M7505	19880223	2000	1157
0165411	PANEL, POWER SUPPLY	M7505	19880223	1500	1157
0165426	DEGAUSSER, TAPE	M7505	19880223	1353	IVAN
0165427	RACK, PATCH	M7505	19880223	22334	1157
0165428	RACK, PATCH	M7505	19880223	13400	1157
0250549	TEST SET, SIGNAL CONDITIONER	M7505	19860715	10000	1307
0252306	CONTROLLER, INSTRUMENT	M7505	20010212	11496	1313
0252644	TEST SET	M7505	19860806	10000	1307

0267885	CURRENT PROBE	M7505	19860702	213	1307
0478908	CONSOLE, MAIN MODULE	M7505	19850525	29850	1157
0478917	CONSOLE, MAIN MODULE	M7505	19850525	29850	1157
0478919	CONSOLE, MAIN MODULE	M7505	19850525	26612	1157
0478920	CONSOLE, MAIN MODULE	M7505	19850525	29850	1157
0482566	CONTROLLER, SCA	M7505	20010212	11651	1313
0641263	GENERATOR, SIGNAL	M7505	20010212	5172	1307
0651386	SYNTHESIZER	M7505	19751231	3335	1307
0658665	POWER SUPPLY	M7505	19821231	1405	1307
0668069	MULTIMETER	M7505A	19840822	389	1
0691736	VOLTAGE STANDARD	M7505	20010212	12173	1307
0692889	REGULATOR, POWER	M7505	20010212	1721	1307
0696108	MAIN MODULE ASSEMBLY	M7505	19850612	26612	1157
0746431	SPEAKER	M7505	19831122	1109	1307
0746432	SPEAKER	M7505	19831122	1109	1307
0746521	AMPLIFIER	M7505	19831108	1495	1307
0746522	PREAMPLIFIER	M7505	19831220	500	1307
0748267	TESTER, INSULATION	M7505	19841029	903	1314A
0748502	CONSOLE, UNIVERSAL CHECKOUT	M7505	19850227	1500	TLBDG
0748692	GENERATOR	M7505	19850214	1125	1307
0749450	REMOTE CONTROL UNIT, TONE	M7505	19880223	637	1157
0749451	REMOTE CONTROL UNIT, TONE	M7505	19880223	637	1157
0750355	PUMP, HYDRAULIC, ELECTRIC	M7505	19850726	1205	1314
0750356	HEAD, INSTALLING W/DIES	M7505	19850726	10378	1314
0816389	CALIBRATOR, DIGITAL	M7505	19910422	815	1307
0816809	CALIBRATOR	M7505	19910925	4125	1307
0817679	METER, MULTI PROBE	M7505	19930708	679	1313
0817816	MULTIMETER	M7505	19931201	289	1314
0817817	MULTIMETER	M7505	19931201	583	1307
0818472	CALIBRATOR	M7505	19960730	3320	1307
0818474	MULTIMETER	M7505	19960802	667	1307
0818475	MULTIMETER	M7505	19960802	667	1307
0818476	MULTIMETER	M7505	19960802	667	1307
0863182	GENERATOR, TIME CODE	M7505	19900223	32350	IVAN
0863183	TAPE UNIT, SEARCH AND CONTROL	M7505	19900223	16630	IVAN
0863187	MULTIMETER, DIGITAL	M7505	19900319	995	1307
0863218	INDICATOR, STRAIN, PORTABLE	M7505	19900319	1095	1307
0863333	MULTIPLEXER, ENCODER	M7505	19901126	63300	IVAN
0863334	MODULATION SYSTEM, PCM, DECOM	M7505	19901126	105000	1157
0863335	GENERATOR, TIME CODE	M7505	19901126	32350	1157
0863455	PUMP, VACUUM	M7505	19920310	1695	1314A
0865056	MONITOR, COLOR	M7505	19890203	1230	1157
0865060	RECORDER, VIDEO CASSETTE	M7505	19890203	3652	1157
0865154	RECORDER, VIDEO CASSETTE	M7505	19880823	3652	1157
0865155	RECORDER, VIDEO CASSETTE	M7505	19880823	3652	1157
0865159	RECEIVER, TELEVISION, COLOR	M7505	19880705	897	1157
0865188	GENERATOR, SIGNAL	M7505	19890626	6150	1307
0866114	MONITOR, TELEVISION	M7505	19881117	1230	1157
0866115	MONITOR, VIDEO	M7505	19881117	1230	1157
0867052	MULTIMETER, DIGITAL	M7505	19890531	2100	1307
0867053	VOLTAGE STANDARD	M7505	19890531	4450	1307
0867055	MULTIMETER, DIGITAL	M7505	19890531	995	FRIV
0867056	MULTIMETER, DIGITAL	M7505	19890531	995	1307
0867069	CALIBRATOR, DIGITAL	M7505	19890531	735	1307
0867515	COMPUTER, DIGITAL	M7505	19900301	15110	IVAN

0867516	EXPANSION UNIT	M7505	19900301	2121	IVAN
0867517	TAPE DRIVE UNIT	M7505	19900301	1404	IVAN
0867518	DISK DRIVE UNIT	M7505	19900301	982	IVAN
0867519	DISK DRIVE UNIT	M7505	19900301	5335	IVAN
0867520	PRINTER, LASER	M7505	19900301	2137	IVAN
0867521	DISPLAY UNIT, MONOCHROME	M7505	19900301	1500	IVAN
0867524	DISPLAY UNIT, MONOCHROME	M7505	19900301	832	IVAN
0867551	MULTIMETER, DIGITAL	M7505	19900522	665	1307
0867947	POWER SUPPLY	M7505	19910305	1499	1307
0868029	MULTIMETER, DIGITAL	M7505	19910509	2891	1307
0868030	MULTIMETER, DIGITAL	M7505	19910509	2891	1307
0868031	MULTIMETER, DIGITAL	M7505	19910509	2891	1307
0870385	CALIBRATOR	M7505	19910614	3295	1313
0870444	CALIBRATOR, VOLTAGE	M7505	19910726	4125	1307
1028149	ANALYZER, OXYGEN	M7557	19900601	2614	104
1034149	CONTROLLER, SWITCH	M7505	20010212	3488	1307
1128820	BEAM BALANCE SCALE	M7505	19940622	882	1314A
1128872	POWER SUPPLY, UNINTERRUPTABLE	M7505	19940801	1240	1313
1131468	SCOPEMETER	M7505	19920603	1616	1307
1131536	GAUGE, CONVECTION	M7505	19920518	580	1307
1131613	SOLDERING STATION	M7505	19920720	2995	1313
1131633	CAMCORDER, SUPER VHS	M7505	19920804	1250	1307
1131662	POWER SUPPLY, DC	M7505	19920804	1225	VAN
1131831	ENCLOSURE, RFI	M7505	19880223	22334	1157
1131874	FLOWMETER, ULTRASONIC	M7505	19921204	3385	1307
1131875	FLOWMETER, GENERL. PURPOSE, GAS	M7505	19921204	3750	1307
1132019	GAGE, DIGITAL	M7505	N/A	N/A	1307
1132259	CALIBRATOR, PRESSURE PULSE	M7505	19930629	4000	1313
1132271	CALIBRATOR, PRESSURE	M7505	19930708	5545	1307
1132280	RECORDER, VIDEOCASSETTE	M7505	19930720	2329	1157
1132281	RECORDER, VIDEOCASSETTE	M7505	19930720	2329	1157
1132282	RECORDER, VIDEOCASSETTE	M7409	19930720	2329	STORG
1132286	RECORDER, VIDEOCASSETTE	M7505	19930720	2329	1157
1132287	RECORDER, VIDEOCASSETTE	M7505	19930720	2329	1157
1139060	MULTIMETER, DIGITAL	M7505	20010212	8193	1307
1141617	MICROSCOPE, OPTICLE	M7505	19940105	1136	1314
1379824	LABELMAKER	M7505	19941116	866	1307
1383109	DATA LOGGER	M7505	19950407	347	1313
1383115	SOLDER STATION	M7505	19950417	2995	1314
1383129	CALIBRATOR, PROCESS	M7505	19950503	2847	FRIV
1383360	ANALOG FILTER	M7505	19950822	3295	1307
1383397	POWER SUPPLY	M7505	19950829	1268	1307
1506114	COMPUTER, DIGITAL	M7505	19960924	3841	1157
1613811	CAMERA	M7505	19900604	439	1307
1613812	LENS, CAMERA, 1/2"	M7505	19900604	107	1307
1872386	DATA LOGGER	M7505	19980327	1095	STO
1872436	CHASSIS W/POWER SUPPLY	M7505	19980529	2795	1313
1979274	DATA LOGGER, DIGITAL	M7505	19980731	1175	1307
1979297	DISK DRIVE UNIT, CD-ROM	M7505	19980814	650	1307
1981270	COMPUTER, DIGITAL	M7505	19990305	1438	1307
2024142	CONTROLLER, TEMPERATURE	M7505	20020107	770	SHOP
2024143	CONTROLLER, TEMPERATURE	M7505	20020107	770	SHOP
2024144	OSCILLOSCOPE, DIGITAL	M7505	20020107	1728	1307
2024146	COMPRESSOR, AIR	M7607	20020107	2212	CRYO
2024117	COMPUTER DIGITAL	M6399	20011005	1669	1529

2024118	COMPUTER DIGITAL	M6399	20011005	1669	1529
2024116	COMPUTER, DIGITAL	M6399	20011005	2205	1529
2024119	DISPLAY UNIT, COLOR	M6399	20011005	944	1529
0817290	DISK DRIVE UNIT	M6399	19930807	550	3153
2024101	PRINTER	M6399	20010702	15995	3308
2024102	COMPUTER DIGITAL	M6399	20010702	2995	3308
1128896	PRINTER	M6399	19940812	2935	3331
1504553	COMPUTER	M6399	19970806	8058	1529
1504554	DISPLAY UNIT, COLOR	M6399	19970806	1270	1529
1391452	PRINTER, ADP	M6399	19950629	2872	3310
0818467	HARD DRIVE	M6399	19960628	535	1529
2024160	COMPUTER, DIGITAL	M6399	20020306	1510	1529
2024161	DISPLAY UNIT, COLOR	M6399	20020306	648	1529
2024163	COMPUTER SYSTEM, DIGITAL	M6399	20020306	6648	3364
0816820	CD ROM	M6399	19911015	765	1529
1981347	SERVER, NETWORK	M6399	20000321	11482	3310
1981348	SERVER, NETWORK	M6399	20000321	11482	3310
1872373	DISPLAY UNIT, COLOR	M6399	19980227	1300	1529
1979288	PRINTER, ADP	M6399	19980811	7051	3308
1872374	DISPLAY UNIT, COLOR	M6399	19980227	1300	3364
1383091	PRINTER, LASER	M6399	19950329	2095	3138
1872375	COMPUTER, DIGITAL	M6399	19980227	3640	3364
1872377	COMPUTER, DIGITAL	M6399	19980227	3640	1529
0026745	COMPUTER	M6399	19970813	3380	3310
1979290	DISPLAY UNIT, COLOR	M6399	19980812	625	3310
0026733	SCANNER	M6399	19970805	783	3308
1504521	SCANNER	M6399	19970725	783	3308
1131510	COMPUTER, DIGITAL	M6399	19920406	3659	3364
0816433	DATA RECORDER	M6399	19921007	18900	3462
0816435	BATTERY CHARGER	M6399	19921007	1180	3462
0026770	TAPE DRIVE	M6399	19970827	1106	1529
1504522	PRINTER	M6399	19970725	735	3308A
0026729	COMPUTER	M6399	19970729	2204	3153
1132047	MULTIMETER, LANCAT	M6399	19930305	1350	3310
0026548	CAMERA, DIGITAL	M6399	19970110	889	3310
1132321	ETHERNET, HUB, EXPRESSNET	M6399	19930716	1229	1529
1132437	PRINTER, LASERWRITER	M6399	19930824	2326	3180E
1504572	LASERWRITER	M6399	19970819	2677	3150
1872344	COMPUTER, DIGITAL	M6399	19980514	2650	3444E
1981373	DISPLAY UNIT, COLOR	M6399	20000608	800	2108D
0026968	COMPUTER SYSTEM, DIGITAL	M6399	20000627	3949	3310
1504438	LASERWRITER	M6399	19970114	2085	3138
1504450	LAMINATOR	M6399	19970122	8000	3308
1132109	COMPUTER, SPARC SYSTEM 10	M6399	19930422	10837	1529
0867544	MONITOR, VIDEO, COLOR	M6399	19900510	1243	1529
0867917	RECORDER/PLAYER, VIDEO	M6399	19910117	569	3144C
1504461	COMPUTER	M6399	19970409	2220	3310
1504466	COMPUTER	M6399	19970409	2220	3310
1981386	RECEIVER, RECORDER, VIDEO	M6399	20000801	600	3144B
2023962	COMPUTER SYSTEM, DIGITAL	M6399	20000810	4045	1202D
1132353	COMPUTER, SHUTTLE	M6399	19930723	1863	3310
1981377	PRESS, DRY MOUNT	M6399	20000818	2999	3308
1379741	PRINTER, ADP, LASERJET	M7409	19940920	970	140B
0026784	HUB	M6399	19970909	1115	3364
1869250	PRINTER, ADP	M6399	19970701	3900	3163

1504779	SCANNER, COLOR	M6399	19960513	1835	1529
0026604	MESSAGE PAD 2000	M6399	19970414	1035	3310
0026814	TAPE BACKUP SYSTEM	M6399	19970423	4025	3354
1504660	DISK STORAGE UNIT	M6399	19970926	8908	1529
0026820	TAPE DRIVE UNIT	M6399	19980126	749	3364
1375410	DISK DRIVE UNIT, CD-ROM	M6399	19940723	592	3153
0816836	DISK DRIVE UNIT	M6399	19920206	1648	3364
0816837	TAPE DRIVE UNIT	M6399	19920206	1256	3364
1872391	SCANNER, IMAGE	M6399	19980415	2680	1529
1872390	PRINTER, ADP	M6399	19980415	3078	3310
1131780	TELEVISION, VCR, 13" COLOR	M6399	19920925	529	3150A
1132110	MONITOR, COLOR, 19"	M6399	19930422	2000	1529
1142881	PRINTER, LASERJET	M6399	19930828	4653	3331
1132399	PRINTER, ADP	M6399	19930809	2579	3310
1128458	ANALYZER, COMMUNICATIONS SYSTMS	M6399	19931004	11295	3144
1142442	PRINTER, ADP, LASERWRITER	M6399	19930729	1998	3136
1504686	TAPE BACK UP UNIT	M6399	19971024	955	3310
1504878	COMPUTER	M6399	19960718	33832	3364
2024043	PRINTER, ADP	M6399	20010529	539	3351
2024088	SCANNER, COLOR	M6399	20010806	600	1529
2024089	SCANNER, COLOR	M6399	20010806	600	1529
2024114	COMPUTER SYSTEM, DIGITAL	M6399	20010921	2489	3310
1871961	DISPLAY UNIT, COLOR	M6399	19980417	1263	3444E
0011347	REFLECTOMETER, TIME DOMAIN	M7409	19890619	8970	198
0011456	LENS W/EXTENDER	M7409	19900906	5729	198
1504958	DISPLAY UNIT, COLOR	M7409	19960918	500	240
0011463	MODULE, OPTICAL, SINGLE MODE	M7409	19910104	23000	198
0011464	GENERATOR, SIGNAL	M7409	19910205	1250	198
1504959	COMPUTER	M7409	19960918	2500	240
0012026	VOLTMETER	M7409	19881027	675	198
0012028	OSCILLOSCOPE	M7409	19881107	10925	170C
0012030	MULTIMETER, DIGITAL	M7409	19881109	937	198
0012416	SAMPLING HEAD	M7409	19891115	4700	198
0012424	SAMPLING HEAD	M7409	19891221	4700	198
0817291	DISK DRIVE UNIT	M7409	19930807	550	198
1132226	DISPLAY UNIT, COLOR	M7409	19930617	1485	198
0160700	MULTIMETER	M7409	19861212	940	198
0160701	MULTIMETER	M7409	19861212	940	170C
0160776	SIGNAL GENERATOR	M7409	19870112	6840	198
2024121	ROUTER, MODULAR	M7409	20011029	2571	140B
2024122	ROUTER, MODULAR	M7409	20011029	2571	140B
0817787	RECEIVER, VIDEO LINK, FIBER OP	M7409	19930914	1599	198
0162498	ATTENUATOR, VARIABLE	M7409	19870618	2650	198
2021843	TRANSMITTER/RECEIVER, VIDEO	M7409	19991208	2079	198
2021844	RECEIVER, VIDEO	M7409	19991208	1848	198
0162578	MAINFRAME	M7409	19870713	20600	198
0163096	INTERFACE, DIGITAL DATA	M7409	19870814	6900	198
0163097	INTERFACE, DIGITAL DATA	M7409	19870814	12450	198
0163539	CLEAVING TOOL, OPTICAL FIBER	M7409	19870915	3750	198
0163731	LIGHT SOURCE	M7505	19871106	6580	1160A
1865974	COMPUTER, DIGITAL	M7409	19970219	2303	144B
0026812	ETHERNET HUB	M7409	19950628	8697	124A
1871851	PROCESSOR, ESP	M7409	19980407	12300	144D
1871852	PROCESSOR, ESP	M7409	19980407	12300	144D

1871855	PROCESSOR, ESP	M7409	19980407	12300	144D
1868371	COMPUTER, DIGITAL	M7409	19970822	2575	144B
2024127	ENCODER, VIDEO	M7409	20011203	6546	198
2024128	ENCODER, VIDEO	M7409	20011203	6546	198
0027042	DECODER, MPEG-2	M7409	20011203	1523	198
1383191	MONITOR	M7409	19950614	567	124
1383236	ROUTER	M7409	19950718	12337	124
0027043	DECODER, MPEG-2	M7409	20011203	1523	198
0026642	COMPUTER	M7409	19970528	2999	144B
1872395	COMPUTER, DIGITAL	M7409	19980421	2615	240
1872396	DISPLAY UNIT, COLOR	M7409	19980421	625	240
1504480	SWITCH, OMNI	M7409	19970527	3570	198
1504487	ANALYZER	M6342	19970530	14950	348
0026644	RADIO, HANDHELD	M6342	19970530	1858	348
1613620	RADIO, HANDHELD	M6342	19970530	1858	348
0026643	COMPUTER	M7409	19970529	1943	144B
0818427	DRIVE, JAZ	M7409	19960617	572	240
1504832	COMPUTER	M7409	19960625	4000	144B
1143239	COMPUTER, DIGITAL	M7409	19970722	399	144D
1128464	ANALYZER, PROTOCOL	M7409	19930930	14100	124
0817782	AMPLIFIER, COMMUNICATIONS	M7409	19930909	11150	198
0817783	CONTROL UNIT	M7409	19930909	11150	198
0026933	METER, OPTICAL	M7409	19990922	8045	198
0239204	ANALYZER, SPECTRUM NETWORK	M7409	19851126	24720	198
1143240	COMPUTER, DIGITAL	M7409	19930920	14685	140C
0239273	RECEIVER, OPTICAL	M7409	19851203	5216	198A
0239274	TRANSMITTER, OPTICAL, 1300NM	M7409	19851203	7352	198A
0239289	BRIDGE, REFLECTION	M7409	19851119	630	198
0239533	GENERATOR	M7409	19860109	6810	198
1131668	PRINTER, LASER IIG	M7409	19920817	3363	198
1131733	MONITOR, 19" COLOR	M7409	19920902	11885	198
1131735	COMPUTER	M7409	19920902	2114	198
0240410	GENERATOR, VIDEO, DIGITAL	M7409	19860117	9491	198
0816417	MULTIMETER, DIGITAL	M7409	19920814	286	198
1040907	RECORDER REPRODUCER, VIDEO	M7409	19911009	996	198
1040908	RECORDER REPRODUCER, VIDEO	M7409	19911009	996	198
0026674	CAMERA, DIGITAL	M7409	19970702	170	144B
1132208	COMPUTER, DEC 3000	M7409	19930610	1200	198
0817917	TEST SET, ETHERNET	M7409	19940818	1200	145A
0252097	ATTENUATOR, OPTICAL	M7409	19860331	3680	198
1131352	LINK, CONFIDENCE TESTER	M7409	19920304	5900	198
1131368	LIGHTWAVE	M7409	19920312	12285	198
1131348	ANALYZER	M7409	19920304	33548	198
1867579	PLAYER, CD, DVD	M7409	19970620	1000	104
1131349	PARAMETER TEST SET	M7409	19920304	10187	198
1131350	CALIBRATION KIT	M7409	19920304	2457	198
1131351	RECEIVER, LIGHTWAVE	M7409	19920304	6150	198
1040916	DISPLAY UNIT, COLOR	M7409	19911015	1125	240
0268154	POWER SUPPLY	M7409	19840625	3100	198
0268339	MODEM, COMMUNICATIONS	M7409	19861128	1632	198
1131353	DISK DRIVE	M7409	19920304	1232	198
0818405	DRIVE, EXTERNAL	M7409	19960503	609	240
1000465	MULTIPLEXER	M7409	20020424	2102	198
0012029	MULTIMETER, DIGITAL	M7409	20020424	2102	198
0749465	MICROSCOPE, PORTABLE	M7409	20020424	2102	198

0651481	MEASUREMENT SET, AUTO VIDEO	M7409	19900803	5464	198
0818366	PC, PALMTOP	M6342	19881109	937	290
1383126	CPU	M7409	19850606	700	144B
1131728	COMPUTER, MICRO	M7409	19821231	20863	198
1143245	COMPUTER, DIGITAL	M7409	19950417	655	140A
1981349	COMPUTER, DIGITAL	M7409	19950428	3099	240
0026948	SWITCH, CISCO	M7409	19920818	532	124
0026949	SWITCH, CISCO	M6342	19930920	9710	331B
0026950	SWITCH, CISCO	M6138	20020503	1230	129
1383232	CD-ROM	M7409	19950718	1595	144B
1379791	DATA RECEIVER	M7409	19940929	2775	198A
1379792	DATA RECEIVER	M7409	19940929	2775	198A
1379793	DATA RECEIVER	M7409	19940929	2775	198A
1379794	DATA RECEIVER	M7409	19940929	2775	198A
1379795	DATA RECEIVER	M7409	19940929	2775	198A
1379807	ENCODER, DATA	M7409	19941017	3950	198A
1379808	ENCODER, DATA	M7409	19941017	3950	198A
1379809	ENCODER, DATA	M7409	19941017	3950	198A
1128547	SONET TEST SET/RX	M7409	19931201	6000	124
1132386	PRINTER, ADP, LASERJET	M7409	19930804	1999	144B
1132384	CHASSIS, ETHERNET/BRIDGE	M639	19930805	12363	106
1379806	CABLE TESTER	M7409	19941005	2945	145A
0014395	IMPULSE GENERATOR, OPTICAL	M7409	19930528	9561	198
1393595	DISPLAY UNIT, COLOR	M6342	19951129	913	348
0014484	FIBERLIGN/MICRO SPLICER	M7409	19920923	5600	198
0026963	SWITCH, CISCO	M7409	20000405	2006	124A
0026964	SWITCH, CISCO	M7409	20000405	2006	203C
1870417	MODULATION TEST SYSTEM, VSB	M7409	19970916	19800	198
1867259	PLAYER, CD-ROM	M7409	19970527	528	165
1867258	ADVISOR, INTERNET	M7409	19970527	29916	124
1128548	SONET TEST SET/TX	M7409	19931201	6000	124
0014505	CONVERTER, OPTICAL	M7409	19930723	9766	198
1393523	COMPUTER, DIGITAL	M7409	19951117	8439	198
1028167	TERMINATION KIT	M7409	19900607	2790	198
1393483	DISK DRIVE UNIT	M7409	19951101	4757	144B
0818374	SCANNER, CABLE	M7409	19950814	2796	240
1122852	LASER, CONTINUITY	M7409	19920918	2098	198
1128469	POWER SUPPLY SYSTEM, PDO	M7409	19930920	1227	124
1122946	VIEWER, IR	M7409	19921008	3995	198
1123009	IDENTIFIER, FIBER	M7409	19921014	2920	198
1123035	GENERATOR, FUNCTION	M7409	19921029	4295	198
1123164	REFLECTOMETER	M7409	19921123	11700	198
1383451	ANALYZER, ETHERNET	M7409	19950908	2500	198
1979313	TAPE BACK-UP	M7409	19980821	2750	144B
0026849	MULTIMETER	M6342	19980817	448	290
0026692	PALMTOP PC	M7409	19970718	629	140C
1383507	MONITOR	M7409	19950925	999	198
0026723	TAPE DRIVE	M7409	19970819	3010	144B
1979264	ROUTER, MODULAR	M7409	19980721	4200	198
1383484	ANALYZER, SPECTRUM	M7409	19950921	30935	198
1979266	ROUTER W/POWER SUPPLY	M7409	19980722	3500	198
0863447	MICROSCOPE, PORTABLE	M7409	19920811	700	198
1383188	CAMERA, VIDEO, COLOR	M7409	19950607	4648	198
1979801	COMPUTER, DIGITAL	M7409	19980831	2250	144B
1979783	COMPUTER, DIGITAL	M7409	19980827	2490	144D

1979789	COMPUTER, DIGITAL	M7409	19980827	2688	140A
1132198	COMPUTER, DIGITAL	M6342	19930604	3085	291
1504600	MONITOR	M7409	19970903	1270	140C
1131785	DISK DRIVE	TVILLE	19920928	400	WHSE
0026771	TAPE DRIVE	M7409	19970827	1106	144B
1383508	GENERATOR	M7409	19950926	12225	198
1132077	ANALYZER, COMMUNICATIONS	M7409	19930324	7730	124
1979309	SWITCH, CATALYST	M7409	19980820	2132	144B
1979771	SWITCH, CATALYST	M7409	19980824	1070	144D
1979793	COMPUTER, DIGITAL	M7409	19980827	3050	198
1979784	DISPLAY UNIT, COLOR	M7409	19980827	625	144B
1979795	COMPUTER, DIGITAL	M7409	19980831	1927	144B
1979796	DISPLAY UNIT, COLOR	M7409	19980831	1000	144B
1128613	COMPUTER, DIGITAL	M7409	19940307	2752	144D
1128663	COMPUTER, DIGITAL	M6138	19940324	15032	129
1128664	TAPE DRIVE UNIT	M7409	19940324	1340	198
1128665	DISK DRIVE UNIT, CD ROM	M7409	19940324	600	198
1383504	NETWORK HUB	M7409	19950921	8188	124
0817929	SPLICER, FUSION	M7409	19940920	13750	198
0817930	DATA ENCODER, DIGITAL	M7409	19940915	3950	198A
0817931	TRIGGER UNIT, VIDEO	M7409	19940915	695	198
0817932	REFLECTOMETER, TIME DOMAIN	M7409	19940916	16300	198
1379727	SWITCH BASE, ATM	M7409	19940914	17780	240
1872398	DISK DRIVE UNIT, CDROM, R/W	M7409	19980429	553	140
1379738	ROUTER	M7409	19940914	6430	198
1379739	ROUTER	M7409	19940914	6430	198
1379740	ROUTER	M7409	19940914	6430	124A
1379767	HARD DRIVE	M7409	19940926	1005	140C
1379768	CD DRIVE UNIT, EXTERNAL	M7409	19940926	503	144D
1379771	HARD DRIVE UNIT	M7409	19940926	1000	102C
1383457	PRINTER, LASER JET	M7409	19950912	1878	198
1132138	COMPUTER, SERVER/SNIFFER	M7409	19930430	6745	198
1132155	MONITOR, 16"	M7409	19930514	1000	198
1872405	DISK DRIVE UNIT, CDROM	M7409	19980505	825	140B
1872406	COMPUTER, DIGITAL	M7409	19980505	3149	140B
1872407	DISPLAY UNIT, COLOR	M7409	19980505	508	140B
1132207	COMPUTER, DIGITAL	M6342	19930610	2499	348
1504583	MONITOR	M7409	19970827	625	124
1375973	PRINTER, ADP, LASER	M7409	19940827	1940	240
1635184	ENCODER, DECODER, DIGITAL	M6342	19980511	3924	239
1391591	OSCILLOSCOPE, DIGITAL	M7409	19950711	13623	198
1126770	DISPLAY UNIT, COLOR	M6342	19920521	2426	290
0026689	ANALYZER	M6342	19970710	798	290
1504983	SWITCH, ATM	M7409	19960930	24277	124
1504527	TRANSCEIVER	M6342	19970728	7425	351
1373666	RECORDER-REPRODUCER, VIDEO	M6399	19940106	1271	3476
1504528	TRANSCEIVER	M6342	19970728	7425	351
1871607	DISK DRIVE UNIT, CD-ROM	M7409	19980209	890	144B
1131474	CONTROLLER, REMOTE	M7409	19920608	3220	198
0650195	TEST SET	M7409	19751231	1733	198
1143250	DISPLAY UNIT, COLOR	M7409	19930920	1750	145A
1517440	DISPLAY UNIT, COLOR	M7409	19961123	2055	240
0012328	MEASUREMENT SET, VIDEO	M7409	19890918	18000	198
0651382	COUNTER	M7409	19751231	2862	198
0651474	GENERATOR	M7409	19731231	4616	160

0651491	CAMERA, OSCOPE	M7409	19830930	504	198
0651764	TEST SET	M7409	19781231	1976	198
1373447	SCREEN, PROJECTION	M7409	19931103	5649	104A
0870371	GENERATOR, SOURCE	M7409	19910603	1970	198
1128502	CONTROLLER	M7409	19931015	49000	198
1872400	TESTER, PIN DRAM	M7409	19980504	1695	170A
1143251	DISK DRIVE UNIT	M7409	19930920	1538	144B
1872747	SWITCH, SUPERSTACK II	M7409	19980515	16718	198
1383082	CLEAVING TOOL, OPTICAL FIBER	M7409	19950315	3750	198
0658664	POWER SUPPLY	M7409	19821231	1405	198
0658666	POWER SUPPLY	M7409	19821231	1405	198
1383405	ANALYZER, ETHERNET	M6399	19950816	14621	3470
1128503	COMPUTER, DIGITAL	M7409	19931015	38500	198
1872728	COMPUTER, DIGITAL	M7409	19980514	6031	144B
1872729	COMPUTER, DIGITAL	M7409	19980514	6031	144B
1128505	PRINTER, ADP	M7409	19931015	1100	198
1872734	DISPLAY UNIT, COLOR	M7409	19980514	639	144B
1872735	DISPLAY UNIT, COLOR	M7409	19980514	639	144B
1388121	SERVER, COM	M7409	19950311	3637	144D
1979582	COMPUTER, DIGITAL	M7409	19980919	3056	144B
1979583	COMPUTER, DIGITAL	M7409	19980919	3056	198
1979584	DISPLAY UNIT, COLOR	M7409	19980919	604	102C
1979585	DISPLAY UNIT, COLOR	M7409	19980919	604	198
1131369	LIGHTWAVE	M7409	19920312	14175	198
0690623	RECEIVER	M7409	19821231	3600	198
0690624	RECEIVER	M7409	19821231	3600	198
0690625	TRANSMITTER	M7409	19821231	3600	198
0690626	TRANSMITTER	M7409	19821231	3600	198
0690707	VECTORSCOPE	M7409	19821231	6708	198
0691084	GENERATOR	M7409	19840913	900	198
1383023	CPU	M7409	19950202	1300	144B
1132177	SWITCH CONTROL UNIT	M6342	19930527	43020	331B
2022486	OSCILLOSCOPE, MIXED SIGNAL	M6342	20000605	4495	348
2022487	OSCILLOSCOPE, MIXED SIGNAL	M6342	20000605	4495	348
2022488	ANALYSIS SYSTEM, LOGIC	M6342	20000605	71606	348
1979773	DISPLAY UNIT, COLOR	M7409	19980825	1040	140C
1041780	DETECTING AND TRACING SET	M7409	19910930	524	198
1143255	DISK DRIVE UNIT	M7409	19930920	1538	144B
1868667	ANALYZER, NETWORK, SNIFFER	M7409	19970728	17332	144B
1143258	DISK DRIVE UNIT	M7409	19930920	1538	144D
1132016	COMPUTER	M7409	19930129	4691	144A
1143259	DISK DRIVE UNIT	M7409	19930920	1538	198
1979843	COMPUTER, DIGITAL	M7409	19980921	5000	144B
1979850	MONITOR, VIDEO, COLOR	M7409	19980923	6300	198
0026883	ANALYZER, SPECTRUM	M7409	19980923	22700	198
1979831	COMPUTER SYSTEM, DIGITAL	M7409	19980916	5582	240
1143260	DISK DRIVE UNIT	M7409	19930920	1538	144B
0867816	BRIDGE, BASS	M7409	19901113	2850	198
0747657	SCOPE	M7409	19851231	599	198
1143262	DISK DRIVE UNIT, CD-ROM	M7409	19930920	671	140C
1872367	DISK DRIVE UNIT	M7409	19980220	720	124
1872368	DISK DRIVE UNIT	M7409	19980220	720	124
0749464	POLISHER	M7409	19850606	1925	198
1866875	SWITCH, ATM*BACKBONE	M7409	19970419	13063	198
1383269	ANALYZER, ETHERNET	M639	19950728	12000	106

0750250	SCOPE, INFRARED	M7409	19850910	790	198
0750251	SCOPE, INFRARED	M7409	19850910	790	198
0750274	LASER, DIGITAL	M7409	19850911	31130	198A
1383270	ANALYZER, ETHERNET	M7409	19950728	12000	198
1383349	ANLYZER, ETHERNET	M7409	19950816	17000	198
0750648	POWER METER, OPTICAL	M7409	19851004	2870	198
0750649	POWER METER, OPTICAL	M7505	19851004	2870	1160A
0750650	BATTERY PACK	M7409	19851004	1250	198
0750651	BATTERY PACK	M7409	19851004	1250	198
0750652	SENSOR	M7505	19851004	2250	1160A
0750653	SENSOR	M7409	19851004	2250	198
0764903	SENSOR	M7409	19851004	600	198
0764904	SENSOR	M7409	19851004	600	198
0787506	GENERATOR	M7409	19801231	2187	198
0787519	PLUG-IN UNIT	M7409	19821231	1687	198
0788006	TEST SET	M7409	19821231	3714	198
0788008	GENERATOR	M7409	19821231	10981	198
0788011	GENERATOR	M7409	19821231	2722	198
0788012	PLUG-IN UNIT	M7409	19821231	1963	198
0788015	TEST SET RANDOM NOISE MEASURIN	M7409	19821231	5875	198
0788017	OSCILLOSCOPE	M7409	19821231	11587	198
0788028	OSCILLOSCOPE	M7409	19731231	4074	145A
1872875	DISK DRIVE UNIT, CD-ROM	M7409	19980518	890	144B
0788032	PLUG-IN UNIT	M7409	19731231	679	198
0046028	DISK DRIVE UNIT, CD-ROM	M7409	19960429	1525	144B
1868145	ROUTER W/POWER SUPPLY	M7409	19970717	15750	124
1868354	MONITOR, ENTERPRISE	M7409	19970721	12872	198
1868636	COMPUTER, DIGITAL	M7409	19970724	6024	144B
1868637	COMPUTER, DIGITAL	M7409	19970724	6024	144B
1979852	VIDEO CONTROL SYSTEM, DIGITAL	M7409	19980930	20031	198
1868638	DISPLAY UNIT, COLOR	M7409	19970724	667	198
0251791	MODEM, COMMUNICATIONS	M7409	19860707	1632	198
0861592	ERROR RATE ANALYZER	K6900	19880223	42460	2P14
1872889	VIDEO MEASUREMENT SET	M7409	19980521	31895	198
1868350	COMPUTER, DIGITAL	M7409	19970720	2655	144B
1868351	COMPUTER, DIGITAL	M7409	19970720	2655	144D
1388943	DISPLAY UNIT, COLOR	M7409	19950522	1483	198
1868352	DISPLAY UNIT, COLOR	M7409	19970720	399	144B
0862943	RECEIVER, TELEVISION	M7409	19880212	650	198
1128813	DISPLAY UNIT, COLOR, 17"	M7409	19940628	790	198
0026888	RADIO, HANDHELD	M6342	19981005	1576	348
1981224	COMPUTER, DIGITAL	M7409	19980910	4500	140
2021382	OSCILLOSCOPE	M6342	20000711	3476	348
2021383	OSCILLOSCOPE	M6342	20000711	3476	348
0866159	ATTENUATOR, OPTICAL, VARIABLE	M7409	19890417	8320	198
0026540	GENERATOR	M6342	19961223	37940	348
0026995	ENCODER, DATA, DIGITAL	M7409	20000714	34382	198
0026972	SWITCH, CISCO	M7409	20000714	3346	124A
0866818	MICROSCOPE, FIBER OPTICS KIT	M7409	19891130	3593	198
0818520	MONITOR	M7409	19960705	400	198
1373792	ANALYZER	M7409	19960906	7645	198
1504923	ANALYZER	M7409	19960906	7645	198
1504995	COMPUTER	M7409	19961105	3000	144B
0026506	RECORDER, CD	M7409	19961114	915	144B
1645611	SNIFFER, ATM	M7409	20000721	8677	124

0867559	TEST UNIT, MICROSYSTEM	M7409	19900604	4920	198
0867591	MICROPROCESSOR, INTERFACE POD	M7409	19900604	2502	198
0026583	CAMERA, VIDEO	M7409	19900713	8379	198
0867769	BRIDGE, BASS	M7409	19970717	2899	198
0867771	BRIDGE, BASS	M7409	19901010	2850	198
0867772	BRIDGE, BASS	M6399	19901010	2850	3470
0867773	BRIDGE, BASS	M639	19901010	2850	106
0867774	BRIDGE, BASS	M7409	19901010	2850	198
0867775	BRIDGE, BASS	M7409	19901010	2850	198
0867776	BRIDGE, BASS	M7409	19901010	2850	198
0026580	LENS	M7409	19901010	2850	198
0867814	BRIDGE, BASS	M7409	19901109	5200	198
0867815	BRIDGE, BASS	M7409	19901113	2850	198
0867894	BRIDGE, INTERNETWORK	M7409	19901113	2850	198
0867895	BRIDGE, INTERNETWORK	M7409	19910104	6784	198
0867948	OPTICAL CONVERTER/POWER METER	M7409	19910104	6784	198
0868005	DISPLAY UNIT	M7409	19910305	9950	198
0868006	DISPLAY UNIT	M7409	19910422	3034	198
0868016	RECEIVER, TELEVISION	M7409	19910422	3034	198
1383946	DISK DRIVE UNIT, CD-ROM	M7409	19910508	6235	144B
0026561	NETWORK MODUAL	M6399	19950524	514	3518
1504448	MONITOR	M7409	19970129	3380	140
1504446	COMPUTER	M7409	19970305	1270	144B
0026585	GENERATOR	M7409	19970305	2000	198
0026996	SWITCH, CISCO	M7409	19970317	6616	124A
1981369	COMPUTER, DIGITAL	M7409	20000724	2006	144C
1981370	COMPUTER, DIGITAL	M7409	20000724	3000	144B
1981383	SERVER	M7409	20000724	2185	144D
0026969	COMPUTER, DIGITAL	M7409	20000724	3846	144D
0869578	DISPLAY UNIT, COLOR	M7409	20000724	8995	198
1868133	DISPLAY UNIT, COLOR	M7409	19890609	5173	198
0869617	MASS STORAGE UNIT	M7409	19970717	734	198
0869618	PLOTTER, X-Y	M7409	19890619	1526	198
0869621	PLUG-IN UNIT, ELECTRONIC COMP	M7409	19890619	896	198
0870219	FIBERSCOPE	M7409	19890619	10530	198
0870368	AMPLIFIER, VIDEO DISTRIBUTION	M7409	19890922	1295	198
0870384	LASER DIODE DRIVER	M7409	19910603	879	198
0870403	GENERATOR, VIDEO ROUTING SYS	M7409	19910614	960	198
0870427	CONTROLLER	M7409	19910614	3230	198
0870966	ROUTER, ETHERNET	M7409	19910722	2245	198
0871026	ATTENUATOR, OPTICAL	M7409	19891018	11975	198
0026978	COMPUTER, DIGITAL	M7409	19891103	7680	240
0026982	COMPUTER, DIGITAL	M7409	20000801	4353	124
1981382	COMPUTER, DIGITAL	M7409	20000801	4353	140C
1981380	COMPUTER, DIGITAL	M7409	20000801	2155	240
1981381	COMPUTER, DIGITAL	M7409	20000801	2955	240
0871467	OSCILLOSCOPE	M7409	19891115	20680	198
1128719	HUB CONCENTRATOR, LANPLEX SYS	M6399	19940426	34873	3470
0026989	CONVERTER	M7409	20000810	1813	104
0026990	CONVERTER	M7409	20000810	1813	104
1981384	PRINTER, ADP	M7409	20000810	1665	140
0026991	COMPUTER SYSTEM, DIGITAL	M7409	20000810	3249	144B
0026992	COMPUTER SYSTEM, DIGITAL	M7409	20000810	3249	144C
0027004	SWITCH, CISCO	M7409	20000810	5848	198
2023963	ANALYZER, NETWORK	M7409	20000810	32430	240

2024005	COMPUTER SYSTEM, DIGITAL	M6342	20000810	3999	239
1979231	DISPLAY UNIT, COLOR	M7409	19980604	625	240
1979232	COMPUTER, DIGITAL	M7409	19980604	2217	240
1383564	DISK DRIVE	M7409	19951008	925	240
0026973	SWITCH	M7409	20000815	580	144D
0026974	SWITCH	M7409	20000815	580	144D
1981376	COMPUTER, DIGITAL	M7409	20000815	1616	144B
2023966	SWITCH, CATALYST	M7409	20000815	37869	140
1981228	COMPUTER SYSTEM, DIGITAL	M7409	19981023	2203	240
2023967	DISPLAY UNIT, COLOR	M7409	20000829	1170	124
2023968	DISPLAY UNIT, COLOR	M7409	20000829	1170	124
2023969	DISPLAY UNIT, COLOR	M7409	20000829	1170	124
2023970	DISPLAY UNIT, COLOR	M7409	20000829	1170	198
2023971	DISPLAY UNIT, COLOR	M7409	20000829	1170	198
1517981	ANALYZER, VIDEO, DIGITAL	M7409	19970203	13000	198
1517982	ANALYZER, STUDIO, DIGITAL	M7409	19970203	10990	198
1379726	PRINTER, ADP, LASERJET	M7409	19940920	970	240
0876821	POWER SUPPLY	M7355	19881107	1785	1213B
0876876	POWER SUPPLY	M7409	19890221	1785	198
1504623	PROCESSOR	M7409	19970909	17730	240
1504624	MONITOR, 20"	M7409	19970909	1270	240
1867282	NANOMETER, LASER SOURCE, TURNABL	M7409	19970605	26900	198
1867283	NANOMETER, LASER SOURCE, TURNABL	M7409	19970605	26900	198
1867592	MODULATOR, LINK, QAM	M7409	19970620	10000	198
2023974	COMPUTER SYSTEM, DIGITAL	M7409	20000907	5000	124
2023976	DISPLAY UNIT, COLOR	M7409	20000907	1120	124
2023975	TAPE DRIVE UNIT	M7409	20000907	1430	140C
2023164	CHASSIS, W/AC SUPPLY	M7409	20000908	31205	124A
0867678	CAMERA, VIDEO	M7409	19900906	7283	198
1131457	TESTER, FIBEROPTIC	M7409	19920518	5900	198
1867382	CONTROLLER, LASER, DIODE	M7409	19970614	3995	198
0027009	COMPUTER SYSTEM, DIGITAL	M7409	20000915	3155	240
0027010	COMPUTER SYSTEM, DIGITAL	M7409	20000915	3155	240
1866429	SWITCH, ATM	M7409	19970325	31888	124
1866430	SWITCH, ATM	M7409	19970325	31888	124
1383144	CPU	M7409	19950511	2999	240
1383172	CAMERA, VIDEO	M7409	19950526	7398	198
1383162	ETHERNET SYSTEM	M7409	19950524	7532	198
2023360	ANALYZER, SPECTRUM, DIGITAL	M6342	20000925	35003	348
0817808	DISK DRIVE UNIT	M7409	19931028	1240	198
1000463	MULTIPLEXER	M7409	19900803	5464	198
0026490	BAY ENCLOSURE	M7409	19961022	965	144B
0026975	COMPUTER, DIGITAL	M7409	20001030	1606	144B
0026983	COMPUTER, DIGITAL	M7409	20001030	1215	144B
0026984	COMPUTER, DIGITAL	M7409	20001030	1215	144C
0026985	COMPUTER, DIGITAL	M7409	20001030	1215	144B
0026986	COMPUTER, DIGITAL	M7409	20001030	1215	144B
0026987	COMPUTER, DIGITAL	M7409	20001030	1215	144B
0026988	COMPUTER, DIGITAL	M7409	20001030	1215	144B
0027000	COMPUTER, DIGITAL	M7409	20001030	3227	144B
0026999	COMPUTER, DIGITAL	M7409	20001030	3227	144B
0026781	NETWORK	M6342	19970909	24980	151
1872380	COMPUTER, DIGITAL	M639	19980310	3055	106
1872383	DISPLAY UNIT, COLOR	M6342	19980310	625	348
1981342	COMPUTER, DIGITAL	M639	20001007	17263	106

1981341	COMPUTER, DIGITAL	M639	20001007	17263	106
1981325	POWER SUPPLY	M639	20001006	1524	106
1504766	COMPUTER	M7409	19960503	17558	144B
1977016	CHASSIS	M7409	19980604	21485	124
1613804	GENERATOR, DIGITAL	M7409	19980304	7125	198
1025567	METER, POWER, FIBER OPTIC	M7409	19900926	435	198
1025568	METER, POWER, FIBER OPTIC	M7409	19900926	925	198
1613805	GENERATOR, DIGITAL	M7355	19980304	7125	1213B
1981252	DISPLAY UNIT, COLOR	M7409	19990202	625	198
1981246	COMPUTER, DIGITAL	M7409	19990125	1255	240
1981247	DISPLAY UNIT, COLOR	M7409	19990125	695	240
1981248	COMPUTER, DIGITAL	M7409	19990125	4175	144D
1866508	CONTROLLER, BUS, FRAME	M7409	19970401	12090	198
1866509	PANEL, CONTROL, UNIVERSAL	M7409	19970401	3690	198
1866671	ENCLOSURE, FRAME, DIGITAL	M7409	19970414	1250	198
1041832	REPEATER, DATA COMMUNICATIONS	M7409	19911001	3420	198
1142232	COMPUTER, DIGITAL	M7409	19930629	15470	140C
1635161	GENERATOR, TEST PATTERN DIGTL	K6900	19980406	15950	1P1
1033475	ROUTER, ETHERNET	M7409	19910117	13150	198
0026420	ANALYZER	M6342	19960916	6150	348
1504952	SIGNAL ANALYZER	M6342	19960917	55195	348
1504951	ANALYZER, MODULATION	M6342	19960917	4360	348
0026793	COMPUTER	M7409	19970918	2349	144B
0026801	COMPUTER	M7409	19970918	2349	140
1504643	MONITOR	M7409	19970918	625	144D
1128832	DISPLAY UNIT, COLOR	M7409	19940719	994	198
1871854	PROCESSOR, ESP	M7409	19980407	12300	144D
1871709	SWITCH, ATM, ESP	M7409	19971006	12300	144D
1871710	SWITCH, ATM, ESP	M7409	19971006	12300	144D
1871359	SWITCH, ATM, ESP	M7409	19971006	12300	144D
1871357	SWITCH, ATM, ESP	M7409	19971006	12300	144D
1040874	TEST SET, ATTENUATION	M7409	19910829	10550	198
1040883	DISPLAY UNIT, COLOR	M7409	19910904	644	102C
1866237	COMPUTER, DIGITAL	M7409	19970313	2303	144B
1981237	SERVER	M7409	19990325	3100	144D
1142236	HARD DRIVE	M7409	19930629	1538	140C
1040904	TEST SET, ATTENUATION	M7409	19911009	6300	198
1040905	TEST SET, ATTENUATION	M7409	19911009	6300	198
1866240	COMPUTER, DIGITAL	M7409	19970313	2303	144B
1504629	GENERATOR, FUNCTION	M6342	19970912	1638	348
1120688	COMPUTER, DIGITAL	M6342	19911024	3788	348
0026795	COMPUTER, NOTEBOOK	M7409	19970912	3756	140B
1981271	REFLECTOMETER	M7409	19990406	19539	198
1142130	RECEIVER, SURVEILLANCE	K6848	19930622	16470	1D4
2024000	DISPLAY UNIT, COLOR	M6342	20010123	848	348
2024001	DISPLAY UNIT, COLOR	M6342	20010123	848	348
1979241	COMPUTER, DIGITAL	M7409	19980629	3150	203A
1979243	DISPLAY UNIT, COLOR	M7409	19980629	730	203A
1981261	COMPUTER, DIGITAL	M7409	19990414	1625	140C
1981267	COMPUTER, DIGITAL	M7409	19990414	1020	124
1981268	DISPLAY UNIT, COLOR	M7409	19990414	625	140C
1977251	SWITCH, CATALYST	M7409	19980630	2236	198
1142131	RECEIVER, SURVEILLANCE	M6342	19930622	16470	348
1132339	ETHERNET, BRIDGE, (2 PIECES)	M7409	19930715	9995	198
0867590	INTERFACE POD	M7409	19900604	1572	198

1131473	CAMERA, COLOR VIDEO	M7409	19920608	10940	198
1131614	ANALYZER, SPECTRUM	M7409	19920721	13508	198
1131618	COMPUTER, DIGITAL	M7409	19920721	10832	198
1131567	COMPUTER, DIGITAL	M7409	19920721	10150	198
1131603	DISK DRIVE	M7409	19920721	810	198
1131616	DISK DRIVE UNIT	M7409	19920721	2152	240
1131807	ANALYZER, T-BERD COMM	M7409	19920929	15779	124
0816436	ANALYZER, JITTER ADP	M7409	19920922	32855	124
1132261	DISPLAY UNIT, COLOR 16"	M7409	19930701	700	198
1132118	CAMCORDER, VIDEO CAMERA/REC.	M7409	19930428	995	124
1132119	CAMCORDER, VIDEO CAMERA/REC.	M7409	19930428	995	124
1130697	DISPLAY UNIT	M6342	19930218	592	251
1132329	COMPUTER, DIGITAL	M7409	19930714	6433	198
1132357	COMPUTER, DIGITAL* DEC 3000	M7409	19930727	12000	198
1132358	DISPLAY UNIT, COLOR VRT	M7409	19930727	995	198
0817744	FILTER, TUNABLE	M6342	19930830	1375	348
1132469	SERVER, ETHERNET	M7409	19930903	2876	198
1132480	GENERATOR, SYNTHESIZED SIGNAL	M6342	19930908	9889	351
1981280	COMPUTER, DIGITAL	M6342	19990622	599	291
1981281	COMPUTER, DIGITAL	M6342	19990622	599	344
0817784	TRANSMITTER, VIDEO LINK, FIBR OP	M7409	19930914	1599	198
0817785	RECEIVER, VIDEO LINK, FIBER OP	M7409	19930914	1599	198
0817786	TRANSMITTER, VIDEO LINK, FIBR OP	M7409	19930914	1599	198
1132482	ANALYZER, COMMUNICATIONS	M7409	19930910	18174	124
1128468	POWER SUPPLY SYSTEM, PDO	M6342	19930920	1227	331B
1033441	DISPLAY UNIT, COLOR	M7409	19910111	3900	140C
1504663	COMPUTER, DIGITAL	M7409	19970929	5420	144D
1504664	DISPLAY UNIT, COLOR	M7409	19970929	1270	102C
1504659	PIX FIREWALL	M7409	19970924	3510	140
1981303	SWITCHER, SIGNAL	M7409	19990628	4498	104
0863558	VIDEO ROUTER/SWITCHER	M7409	19910614	5341	198
1128460	BROADBAND ANALYZER	M7409	19930928	7440	124
1383020	DISK DRIVE, CD ROM	M7409	19950130	503	140C
1383065	TAPE DRIVE	M7409	19950227	1075	144B
1977325	PRINTER, ADP	M7409	19980713	500	240
2024020	PRINTER, ADP	M7409	20010413	2935	124
1504877	HARD DRIVE	M7409	19960718	31356	144B
1981295	PRINTER, ADP	M7409	19990616	995	198
2024039	COMPUTER, DIGITAL	M7409	20010515	2499	124
2024037	SWITCH, ATM	M7409	20010515	4386	124
0027028	SERVER, NETWORK	M7409	20010518	3670	140
0026905	DISK DRIVE UNIT	M639	19990712	1020	106
0026904	DISK DRIVE UNIT	M639	19990712	1020	106
0026903	DISK DRIVE UNIT	M639	19990712	1576	106
1981322	COMPUTER, DIGITAL	M7409	19990730	3365	144D
1981323	COMPUTER, DIGITAL	M7409	19990730	3365	144B
1981288	COMPUTER, DIGITAL	M639	19990712	4059	106
1981313	COMPUTER, DIGITAL	M7409	19990713	3236	140C
1981314	COMPUTER, DIGITAL	M7409	19990713	3236	140C
1981318	DISPLAY UNIT, COLOR	M7409	19990716	625	144D
1981319	DISPLAY UNIT, COLOR	M7409	19990716	625	144D
1981316	COMPUTER, DIGITAL	M7409	19990716	2075	144D
1981317	COMPUTER, DIGITAL	M7409	19990716	2075	144D
1981312	COMPUTER, DIGITAL	M7409	19990713	3925	144D
1981287	COMPUTER, DIGITAL	M7409	19990706	3678	198

2024042	COMPUTER, DIGITAL	M7409	20010524	2596	240
0026911	COMPUTER, DIGITAL	M7409	19990902	750	102C
0026913	COMPUTER, DIGITAL	M7409	19990902	750	170C
1981324	POWER SUPPLY	M639	19990902	1524	106
1981328	COMPUTER SYSTEM, DIGITAL	M7409	19990902	3236	198
1981335	SERVER, NETWORK	M639	19990902	12465	106
1981334	SERVER, NETWORK	M639	19990902	12465	106
1981332	DISK DRIVE UNIT	M6342	19990902	1010	388
1981333	DISK DRIVE UNIT	M7409	19990902	1010	198
1981331	SERVER, NETWORK	M7409	19990902	3800	144B
1981330	SERVER, NETWORK	M7409	19990902	3800	198
0026919	SWITCH, ETHERNET	M639	19990902	1850	106
0026920	SWITCH, ETHERNET	M639	19990902	1850	106
0026921	SWITCH, ETHERNET	M639	19990902	1850	106
0026917	SWITCH, ETHERNET	M7409	19990902	1850	144D
0026918	SWITCH, ETHERNET	M7409	19990902	1850	144B
0026925	SWITCH, ETHERNET	M7409	19990902	1850	124A
0026926	SWITCH, ETHERNET	M7409	19990902	1850	124A
0026924	SWITCH, ETHERNET	M7409	19990902	1850	203C
0026922	SWITCH, ETHERNET	M7409	19990902	1850	203C
0026923	SWITCH, ETHERNET	M7409	19990902	1850	124A
0026914	SWITCH, ETHERNET	M7409	19990902	1651	198
0026915	SWITCH, ETHERNET	M7409	19990902	1651	124A
0026916	SWITCH, ETHERNET	M7409	19990902	1651	124A
2024026	WORKSTATION	M7409	20010620	1180	140C
2024028	WORKSTATION	M7409	20010620	1180	140C
2024027	MODULE, NETWORK	M7409	20010620	1700	198
2024030	MODULE, NETWORK	M7409	20010620	1700	140C
2024031	MODULE, NETWORK	M7409	20010620	1700	140C
2024035	MODULE, NETWORK	M7409	20010620	1700	198
2024036	MODULE, NETWORK	M7409	20010620	1700	198
2024025	WORKSTATION	M7409	20010620	570	140C
2024029	WORKSTATION	M7409	20010620	570	140C
2024015	WORKSTATION	M7409	20010620	840	140C
2024016	WORKSTATION	M7409	20010620	840	140C
2024017	WORKSTATION	M7409	20010620	840	144C
2024018	WORKSTATION	M7409	20010620	840	140C
2024019	WORKSTATION	M7409	20010620	840	140C
2024022	WORKSTATION	M7409	20010620	840	140C
2024023	WORKSTATION	M7409	20010620	840	144B
2024024	WORKSTATION	M7409	20010620	840	140A
2024047	TESTER, COMMUNICATIONS	M7409	20010620	34012	124
2024046	APPSWITCH	M7409	20010620	13243	144D
2024040	SERVER	M7409	20010620	11665	140C
2021607	CONTROLLER, DIGITAL, VIDEO	M7409	19991016	3760	198
2024051	AMPLIFIER, DUAL BAND	M7409	20010620	19850	198
2020705	ANALYZER, DIGITAL	M7409	19990909	111402	198
2021314	FRAME, 3 RACK UNIT	K71207	19991001	5715	1106
2024053	COMPUTER, DIGITAL	M7409	20010706	3469	240
2024052	DISPLAY UNIT, COLOR	M7409	20010706	700	240
2024057	CONVERTER, SCAN, VIDEO	M7409	20010706	1000	124
2024058	CONVERTER, SCAN, VIDEO	M7409	20010706	1000	124
2024055	CONVERTER, SCAN, VIDEO	M7409	20010706	1000	124
2024056	CONVERTER, SCAN, VIDEO	M7409	20010706	1000	124
0026927	SWITCH, ETHERNET	M7409	19990922	1850	198

0026928	SWITCH, ETHERNET	M7409	19990922	1850	203C
0026929	SWITCH, ETHERNET	M7409	19990922	1850	198
0026930	SWITCH, ETHERNET	M7409	19990922	1850	203C
0026931	SWITCH, ETHERNET	M7409	19990922	1850	203C
0026910	COMPUTER, SERVER, NETWORK	M7409	19990922	7879	144B
0026932	METER, OPTICAL	M7409	19990922	8045	198
1981299	DISPLAY UNIT, COLOR	M7409	19990628	7375	198
2021096	ANALYZER, VIDEO	M7409	19990922	21900	198
1981339	COMPUTER, DIGITAL	M6342	19991004	13533	388
0026937	SWITCH, ETHERNET	M639	19991004	1850	106
0026938	SWITCH, ETHERNET	M7409	19991004	1850	140
0026940	SWITCH, ETHERNET	M7409	19991004	1850	144B
0026939	SWITCH, ETHERNET	M7409	19991004	1850	144D
0026941	SWITCH, ETHERNET	M7409	19991004	1850	198
1982161	MONITOR, VIDEO	M7409	19991004	17939	198
2024059	CONVERTER, SCAN, VIDEO	M7409	20010706	1000	124
0026942	COMPUTER SYSTEM, DIGITAL	M7409	19991003	3175	144D
0026936	COMPUTER SYSTEM, DIGITAL	M7409	19990907	4000	144D
1041051	POWER SUPPLY, UNINTERRUPTIBLE	M6342	19911115	780	348
2021608	RECORDER, VIDEO	M7409	19991018	60236	198
2021616	ANALYZER, VIDEO	M7409	19991022	52638	198
2024068	MULTIPLEXOR	M7409	20010727	15950	198
2024075	TAPE DRIVE UNIT	M7409	20010806	2915	140B
2024090	POWER SUPPLY, UNINTERRUPTED	M7409	20010806	615	140B
2024091	POWER SUPPLY, UNINTERRUPTED	M7409	20010806	615	140B
2024076	SERVER	M7409	20010806	1075	140B
2024077	SERVER	M7409	20010806	1075	140B
2024078	SERVER	M7409	20010806	1075	140B
2024079	SERVER	M7409	20010806	1075	140B
2024080	SERVER	M7409	20010806	1075	140B
2024083	SERVER	M7409	20010806	1075	140B
2024084	SERVER	M7409	20010806	1075	140B
2024085	SERVER	M7409	20010806	1075	140B
2024086	SERVER	M7409	20010806	1075	140B
2024087	SERVER	M7409	20010806	1075	140B
2024095	SWITCH	M7409	20010806	600	124
2024092	ANALYZER, PROTOCOL	M7409	20010806	21985	240
2021671	ENCODER UNIT	M7409	19991028	30498	124
2021672	DECODER UNIT	M7409	19991028	22509	198
0027033	ATTENUATOR, FIBER OPTIC	M7409	20010817	1580	198
1122261	TAPE DRIVE, 8MM DAT	M7409	19920214	1600	140A
2024106	ATTENUATOR, OPTICAL	M7409	20010824	7489	198
1504916	COMPUTER	M7409	19960822	2040	144B
1504571	SERVER	M639	19970819	8000	106
1867764	METER, WAVELENGTH	M7409	19970711	21930	198
1504602	ANALYZER	M6342	19970904	7920	239
2024104	DISPLAY UNIT, COLOR	M7409	20010921	835	240
2024105	DISPLAY UNIT, COLOR	M7409	20010921	835	240
1122520	HOUSING UNIT, STAR SWITCH	M7409	19920706	5000	198
2024115	SCANNER, COLOR	M7355	20010921	869	1237
0011061	GENERATOR, TIME CODE	M7409	19870921	3681	121
0011440	LENS, CAMERA, ZOOM	L7989	19900307	1588	SHED
0011441	LENS, CAMERA, ZOOM	L7989	19900307	1588	SHED
0011450	RECORDER, THERMAL ARRAY, PORT	M7409	19900725	8900	121
0011454	OSCILLOSCOPE	M7409	19900906	7276	121

0012466	CAMERA, VIDEO	M7409	19891006	3250	121
1505143	DISK DRIVE UNIT	M7409	19960611	759	MEZZ
0817650	COUNTER, UNIVERSAL	M7409	19930607	1743	160
1379236	PRINTER, ADP, LASER	M7409	19950103	724	0125
0026943	ANALYZER, GAS	M7409	19991005	6284	128
1132352	INDICATOR, DIGITAL TEMPERATURE	M7409	19930723	2045	121
1388599	DISPLAY UNIT, COLOR	M7409	19950425	674	121
0817658	GENERATOR, FUNCTION	M7409	19930610	1900	121
1383281	OSCILLOSCOPE	M7409	19950804	4460	121
0161493	STROBOSCOPE, DIGITAL	M7409	19870304	6010	121
0161663	RECEIVER, TELEVISION	M7409	19870324	529	121
0161693	CALIBRATOR, TEMP TRANSDUCER	M7409	19870318	3900	SHED
0161696	CALIBRATOR, REFRIGERATING	M7409	19870326	3900	SHED
0161698	STROBOSCOPE, DIGITAL, PORT	M7409	19870326	2285	121
1871614	GAS MIXING SYSTEM	M7409	19980212	10970	128
1128467	MONITOR, TELEVISION 14" COLOR	M7409	19930922	599	103
2021824	DISPLAY UNIT, COLOR	M7409	19991204	2250	SHED
2021825	RECEIVER, COMMUNICATIONS	M7409	19991204	1800	119
1635551	CALIBRATOR, VOLTAGE	M7409	19991204	3995	128
1635552	CALIBRATOR, VOLTAGE	M7409	19991204	3995	128
1128461	FLOWMETER, GAS TRANSFER STND.	M7409	19931012	20800	121
2021838	POWER SUPPLY	M7409	19991207	2905	128
2021839	POWER SUPPLY	M7409	19991207	2905	128
0162544	OSCILLOSCOPE	M7409	19870710	5340	103
0162546	OSCILLOSCOPE	M7409	19870710	5340	160
0162593	CAMERA, TELEVISION	M7409	19870710	990	170C
0162792	CALIBRATOR, VOLTAGE	M7409	19870729	2895	121
0162793	CALIBRATOR, VOLTAGE	M7409	19870729	2895	121
0163084	POWER SUPPLY	M7409	19870812	4100	101
0163085	POWER SUPPLY	M7409	19870812	4100	103
2027225	COMPUTER, DIGITAL	M7409	20011114	1730	101
2027226	DISPLAY UNIT, COLOR	M7409	20011114	800	101
1979260	RECIEVER, GPS, HANDHELD	M7409	19980710	3800	103
2024125	COMPUTER, DIGITAL	M7409	20011123	2066	200
2024126	DISPLAY UNIT, COLOR	M7409	20011123	886	200
2024134	POWER SUPPLY	M7409	20011126	11945	123
2024135	POWER SUPPLY	M7409	20011127	2995	123
2024136	POWER SUPPLY	M7409	20011127	2995	123
2024139	RECORDER, CHART	M7409	20011121	7400	125
2024137	SERVER, NETWORK	M7409	20011127	3067	123
2024138	SERVER, NETWORK	M7409	20011127	3067	123
1383230	MONITOR	M7409	19950717	640	103
0164784	MULTIMETER, DIGITAL	M7409	19871221	2107	101
0817752	SOLDERING PROCESS CONTROL UNIT	M7409	19930901	2845	160
2024140	POWER SUPPLY	M7409	20011203	12495	128
2024155	COMPUTER SYSTEM, DIGITAL	M7409	20020201	2810	125
1383225	COMPUTER, DIGITAL	M7409	19950717	3008	160
1391539	MICROSCOPE	M7409	19950708	1098	126
1132061	ENVIRONMENTAL CHAMBER	M7409	19930308	4420	121
0867535	PAN & TILT	L7989	19900320	1130	SHED
1872370	BAROMETER	M7409	19980225	2950	121
0818510	PREAMPLIFIER	M7409	19960624	1895	128
1504822	TRANSDUCER	M7409	19960617	2780	121
0818429	CAMCORDER	M7409	19960624	1217	230
2024141	COMPUTER, DIGITAL	M7355	20020107	1560	1223

2024145	DISPLAY UNIT, COLOR	M7355	20020107	669	1223
1391367	AMPLIFIER, CLOSE-END, PROBE	M7409	19950616	3785	119
2024151	REFLECTOMETER	M7409	20020115	5500	123
1391370	CABLE, TESTER	M7409	19950616	631	160
0173071	OSCILLOSCOPE	M7409	19880112	1231	121
2024156	RECORDER, DVD	M7409	20020215	806	125
0026951	COMPUTER SYSTEM, DIGITAL	K61096	20000224	3705	5307A
0240165	OSCILLOSCOPE	M7409	19851025	8312	170C
0240168	ANALYZER, PROTOCOL	M7409	19850409	12000	103
0240311	TRANSMITTER, DIGITAL DATA	M7409	19851112	4560	160
0240312	RECEIVER, DIGITAL DATA	M7409	19851112	5760	160
1131669	SCOPEMETER	M7409	19920817	1615	121
1979233	DISPLAY UNIT, COLOR	M7409	19970828	637	103
1131727	CLEANER, ULTRASONIC	M7409	19920827	1664	160
1131636	SCANMAKER	M7409	19920804	1289	170C
2020579	UV RADIATION DETECTOR	M7409	19851230	5200	121
0251362	UV RADIATION DETECTOR	M7409	19851230	5200	121
0251363	UV RADIATION DETECTOR	M7409	19851230	5200	121
0251365	UV RADIATION DETECTOR	M7409	19851230	5200	121
1040915	DISPLAY UNIT, COLOR	L7989	19911015	1125	SHED
0251530	PLOTTER, GRAPHICS	M7409	19850415	734	119
1504559	OSCILLOSCOPE	M7409	19970806	5936	119
1979265	TAPE DRIVE UNIT	M7409	19980721	2490	200
1121595	DISK DRIVE UNIT	M7409	19920319	4275	170C
1383097	CPU	M7409	19950331	3875	SHED
1131764	DISK DRIVE	M7409	19920921	825	125
0417013	MULTIMETER	M7409	19831015	1249	121
0417014	MULTIMETER	M7409	19831015	1249	121
0426290	ANALYZER	M7409	19840130	8170	160
1866056	COMPUTER, DIGITAL	M7409	19970225	2303	ANNEX
1866057	COMPUTER, DIGITAL	M7409	19970225	2303	121
0816815	RECEIVER, TELEVISION, COLOR	M7409	19911015	566	119
1128556	FLOWMETER	M7409	19931221	4345	121
0817844	POWER SUPPLY, DC	M7409	19940203	2661	121
0817845	POWER SUPPLY, DC	M7409	19940203	2661	121
1128569	DISPLAY UNIT, COLOR	J62313	19940120	1300	10
1379813	GENERATOR, WAVEFORM UNIVERSAL	M7409	19940112	4791	160
1040924	GENERATOR	M7409	19911023	3997	103
1132185	DRIVE UNIT, OPTICAL	M7409	19930604	2625	200
1979282	SOLDERING STATION	M7409	19980810	5625	160
0026831	MODEM, COMMUNICATION, RADIO	M7355	19980804	1245	103
0026830	CAMERA, DIGITAL	M7409	19980731	1184	121
1979280	SOLDERING STATION	M7409	19980810	3240	160
0026832	MODEM, COMMUNICATION, RADIO	M7355	19980804	1245	103
1393399	TAPE DRIVE UNIT	M7409	19951004	2799	200
1504508	POWER SUPPLY	M7409	19970703	1741	121
1504509	POWER SUPPLY	M7409	19970703	1741	128
0026680	MULTIMETER	M7409	19970708	4049	121
0026676	HAND HELD CALIBRATOR	M7409	19970707	1800	121
1391812	FLOWMETER	M7409	19950727	3912	121
1122439	CONTROLLER	M7409	19920515	3245	SHED
1122440	CONSOLE	M7409	19920515	19509	121
1979304	EMULATOR	M7409	19980818	3345	128
0026855	OSCILLOSCOPE	M7409	19980820	2077	128
1979303	TAPE DRIVE UNIT	M7409	19980817	2490	200

1131825	STORM SCOPE, WEATHER MAPNG SYS	M7409	19920915	8900	160
1979287	MODULAR DEVELOPMENT SYSTEM	M7409	19980811	5490	128
1979301	PRINTER, ADP	M7409	19980817	1364	200
2022280	OSCILLOSCOPE, DIGITAL	M7409	20000422	5395	103
1383461	MONITOR	M7409	19950913	641	160
0011782	RECORDER, THERMAL	M7409	19901120	7700	121
0161494	STROBOSCOPE, PORTABLE	M7409	19870304	2285	121
1383437	MONITOR	M7409	19950908	729	138
0690210	DISTRIBUTOR, 40 CONNECTOR	M7409B	19781231	40000	BLKHS
0658667	POWER SUPPLY	M7409	19821231	1405	170C
0865063	VIDEO RECORDER	M7409	19880830	550	160
0867878	RECEIVER	M7409	19910208	1110	160
0816429	GENERATOR, TIMECODE, TRANSLATOR	M7409	19921007	3974	103
1391302	COMPUTER SYSTEM, DIGITAL	M7409	19950619	5871	160
1979319	COMPUTER, DIGITAL	M7409	19980821	1975	160
1979298	DISPLAY UNIT, COLOR	M7409	19980814	1220	160
1979797	COMPUTER, DIGITAL	K6900	19980831	1233	2P19
1635140	OSCILLOSCOPE	M7409	19980316	6646	128
0026862	MODEM, COMMUNICATION, RADIO	M7505	19980901	1195	1307
1979800	DISPLAY UNIT, COLOR	M7409	19980831	625	160
0026864	MODEM, COMMUNICATION, RADIO	M7409	19980901	1195	170
0026863	MODEM, COMMUNICATION, RADIO	M7409	19980901	1195	170
0026865	MODEM, COMMUNICATION, RADIO	M7409	19980901	1195	170
0026866	MODEM, COMMUNICATION, RADIO	M7355	19980901	1195	103
0026867	MODEM, COMMUNICATION, RADIO	M7409	19980901	1195	170
0026868	MODEM, COMMUNICATION, RADIO	M7409	19980901	1195	103
0026869	MODEM, COMMUNICATION, RADIO	M7355	19980901	1195	103
1979803	MULTIMETER, DIGITAL	M7409	19980901	5427	128
1979802	MULTIMETER, DIGITAL	981	19980901	995	52
1128677	GENERATOR, PULSE	M7409	19940331	5623	121
1374005	SOLDERING-DESOLDERING STATION	M7409	19940502	2950	126
1979798	DISPLAY UNIT, COLOR	K6900	19980831	625	2P19
1979318	DISPLAY UNIT, COLOR	M7409	19980821	625	160
1128675	GENERATOR	M7409	19940331	3290	121
1128693	POWER SUPPLY, DC	M7409	19940428	1647	121
0817775	OSCILLOSCOPE, PORTABLE/ANALOG	M7409	19930903	656	103
1128678	GENERATOR, FUNCTION	M7409	19940331	1695	121
1128674	COUNTER, UNIVERSAL	M7409	19940407	2575	121
1128612	HYDROMETER	M7409	19940222	4900	121
0817849	LAB PRESSURE/STANDARD, PORTABLE	M7409	19940228	3600	121
1128603	MULTIMETER, DIGITAL	M7409	19940214	6199	121
1872397	DISK DRIVE UNIT, CDROM, R/W	M7409	19980429	533	170C
1379754	COUNTER, UNIVERSAL	M7409	19940927	799	160
1128615	SCANNER	M7409	19940311	1820	121
0867539	CONTROLLER, DESKTOP	L7989	19900412	959	SHED
1379762	DISPLAY UNIT, COLOR	M7409	19940923	600	128
1132462	ANALYZER, SPECTRUM	M7409	19930901	31349	103
1870460	COMPUTER, DIGITAL	M7409	19970918	6391	160
0026753	COMPUTER	M7409	19970826	4500	200
1383472	CONTROLLER, MASS FLOW	M7409	19950914	1030	121
1870462	DISK STORAGE UNIT	M7409	19970918	974	160
0500477	RECORDER, CHART	M7409	19851010	5165	121
0500485	CAMERA, VIDEO	M7409	19870403	1080	121

1504573	MONITOR	M7409	19970820	1823	200
1375974	PRINTER, ADP, LASER	M7505	19940827	1940	RCVNG
1132050	OSCILLOSCOPE	M7409	19930316	1439	121
1393081	COMPUTER, DIGITAL	M7409	19950923	996	170E
0251358	UV RADIATION DETECTOR	M7409	19980903	5200	121
1872363	COMPUTER SYSTEM, DIGITAL	M7409	19980219	4979	103
1504529	ENVIROMENTAL CHAMBER	M7409	19970707	4642	128
1376422	COMPUTER, DIGITAL	M7409	19940923	2937	170C
0026875	POWER SUPPLY, PROGRAMMABLE, DC	M7409	19980909	1795	121
1373665	RECORDER-REPRODUCER, VIDEO	L7989	19940106	1271	SHED
0867067	DATA ACQUISITION UNIT	M6342	19890612	3000	349
0026876	POWER SUPPLY, PROGRAMMABLE, DC	M7409	19980909	1795	128
1131886	COMPUTER, DIGITAL	M7409	19930105	2900	200
0620946	GAS DIVIDER	M7409	19841107	2300	125
1871397	DISK DRIVE UNIT, CD-ROM	M7409	19980105	890	170C
0650178	VOLTMETER	M7409	19781231	516	101
0651426	RECEIVER	M7409	19711231	772	138
0651497	TEST UNIT	M7409	19721231	752	121
0651504	GENERATOR	M7409	19721231	1605	170
0651512	GENERATOR	M7409	19791231	7796	121
0651669	GENERATOR	981	19741231	767	52
0651771	POWER SUPPLY	M7409	19830930	1995	121
1383070	GENERATOR, SIGNAL	M7409	19950310	1725	121
1131629	TAPE DRIVE,EXT DDS/DC	M7409	19920803	1554	MEZZ
0817286	EXTERNAL DRIVE, OPTICAL	M7409	19930716	1539	SHED
1504597	PROGRAMMING UNIT	M7409	19970903	4995	160
0872600	COUNTER, PARTICLE	M7409	19910605	3500	170E
0872690	PARTICLE COUNTER	M7409	19910614	3910	170E
1872412	COMPUTER, DIGITAL	M7409	19980513	1435	121
1872413	DISPLAY UNIT, COLOR	M7409	19980513	625	121
1144753	SAW, RESONATOR	M7409	19931007	6450	170E
1145429	PLASMA CLEANER/STERILIZER	M7409	19940824	1150	170E
1145428	VACUUM PUMP	M7409	19940824	1210	170E
1124058	FLOW BENCH LAMINAR	M7409	19930707	4166	170E
1131367	POWER SUPPLY	M7409	19920316	1400	160
0691132	MULTIMETER/RMS	M7409	19841107	332	121
0691133	MULTIMETER/COUNTER	M7409	19841107	332	123
0816847	SCOPEMETER	M7409	19920507	1615	160
1979770	PRINTER, ADP	M7409	19980820	5415	123
1872419	ANTENNA, ACTIVE MONOPOLE	M7409	19980515	2365	119
0026870	COUNTER	M7409	19980903	2475	121
1132152	SIMULATOR, THERMOCOUPLE/CALIBR	M7409	19930513	5669	128
0695819	FUNCTION GENERATOR	M7409	19841107	4075	103
0817735	CAMERA, VIDEO	M7409	19950119	783	170E
0747587	MULTIMETER	M7409	19841207	1375	121
0747588	MULTIMETER	M7505	19841207	1375	1307
0817733	ANALYZER	M7409	19930820	6408	160
0748608	OSCILLOSCOPE	M7409	19850227	900	101
0749310	MULTIMETER	M7409	19850524	940	121
0749311	MULTIMETER	M7409	19850524	940	119
0749312	MULTIMETER	M7409	19850523	930	121
0749315	MULTIMETER	M7409	19850523	930	121
0749608	COUNTER	M7409	19850624	2646	103
1383535	CALIBRATOR, VOLTAGE	M7409	19850717	2650	121
1383534	CALIBRATOR, VOLTAGE	M7409	19850717	2650	121

0749960	ANALYZER, LOGIC	M7409	19850802	12285	101
1132445	ANALYZER	M7409	19930820	12455	160
0750415	VOLTMETER, DIGITAL	M7409	19850829	3660	103
0817736	GENERATOR, PULSE/FUNCTION	M7409	19930826	3922	128
0750947	OSCILLOSCOPE, DIGITAL	M7409	19851011	17467	160
0750962	CAMERA, VIDEO	M7409	19870403	1080	121
1379145	ANALYZER, PROTOCOL	M7409	19941210	17098	160
1660290	PROBE	M7409	19731231	703	160
1660292	ANALYZER	M7409	19811231	29450	111
1660291	GENERATOR, FUNCTION	M7409	19751231	904	128
1040846	GENERATOR, TIME CODE	K61096	19911010	12288	5320
1981227	CALIBRATOR, VOLTAGE	M7409	19981016	3995	128
0816390	THERMOMETER, DIGITAL	M7409	19910509	995	121
0816391	THERMOMETER, SINGLE CHANNEL	M7409	19910509	795	121
0861525	IMAGE PROCESSING SYSTEM	M7409	19880209	43486	121
0861526	IMAGE PROCESSING SYSTEM	M7409	19880809	43486	SHED
1374801	COMPUTER, DIGITAL	M7409	19940525	1935	160
0817737	GENERATOR, PROGRAMMABLE	M7409	19930826	5500	160
1981375	OSCILLOSCOPE, DIGITAL	M7409	20000627	9264	128
0863340	METER, FLO-BOX	M7409	19901210	6500	121
0863341	CAMERA, TELEVISION	M7409	19901210	719	121
0863356	INDICATOR, STRAIN	M7409	19901210	1395	SHED
1376523	PRINTER, ADP, LASER	M7409	19940930	1645	200
0863880	MULTIMETER	M7409	19880629	344	160
0864086	OHMMETER	981	19880829	2271	52
0864914	TELESCOPE, 10X	M7409	19881129	18000	SHED
0865124	CAMERA, COLOR, CCD	M7409	19880901	2584	121
1375038	SOLDERING STATION	M7409	19940627	2925	138
0865689	COMPUTER, DIGITAL	M7409	19890220	5080	138
0026576	BEACON RECEIVER, MBX-2	M7409	19970305	1600	103
0026602	TEMPERATURE CONTROLLER	M7409	19970407	2500	121
1504416	CONTROLLER, TEMPERATURE	M7409	19960813	5250	121
0867536	PAN & TILT	L7989	19900320	1130	SHED
0867596	CAMERA, VIDEO, COLOR	L7989	19900612	1268	SHED
0867651	OSCILLOSCOPE, DIGITAL	M7409	1990725	2132	160
0867711	VIDEO ANNOTATOR	M7409	19900914	2610	121
0867875	RECEIVER	M7409	19911028	1110	160
0867876	RECEIVER	M7409	19910208	1110	160
0867877	RECEIVER	M7409	19910208	1110	160
0867890	CLOCK, SYNCHRONIZED	M7409	19901214	3625	160
0867891	DISK DRIVE UNIT	M7409	19910104	900	125
0867918	RECORDER/PLAYER, VIDEO	M7409	19910117	569	170C
1376525	PRINTER, ADP, LASER	M7409	19940930	1645	240D
1866546	DISK DRIVE UNIT, CD-ROM	M7409	19970404	539	103
1866547	DISK DRIVE UNIT, CD-ROM	M7409	19970404	539	103
0869096	COMPUTER, MICRO	M7409	19900112	4522	121
0869097	DISPLAY UNIT, COLOR	M7409	19900112	650	121
1383288	MONITOR	M7409	19950809	849	200
0869619	MULTIMETER, DIGITAL	M7409	19890620	5558	121
0869620	MULTIMETER, DIGITAL	M7409	19890620	5558	121
0869712	COUNTER, LASER PARTICLE	M7409	19890705	2450	170E
0869713	PROCESSOR, REMOTE	M7409	19890705	1900	170E
0869894	CALIBRATOR, TEMPERATURE	M7409	19890815	1902	121
0869895	CALIBRATOR, TEMPERATURE	M7409	19890815	1902	121
1383083	POWER SUPPLY	M7409	19950116	2812	121

0870078	CALIBRATOR, PRESSUSRE	M7409	19890911	1980	121
0870308	BATH, TERMPERATURE, CALIBRAT.	M7409	19890926	15035	121
0870357	MONITOR, DEW POINT, HUMIDITY	M7409	19910516	5385	121
0870358	HYGROMETER, HUMIDITY	M7409	19910516	1825	SHED
0870367	MICROSCOPE	M7409	19910603	815	170C
0870419	TAPE DRIVE UNIT	M7409	19910710	2995	200
1872429	DISPLAY UNIT, COLOR	M7409	19980521	625	230
1872430	COMPUTER, DIGITAL	M7409	19980521	1419	230
1872437	COMPUTER, RACK MOUNTED	M7409	19980601	2055	SHED
1872435	GENERATOR, POWER SWEEP	M7409	19980602	5777	119
0026970	THEROMETER, DIGITAL INFRARED	M7409	20000801	4900	121
0027001	COMPUTER, DIGITAL	M7409	20000801	2999	103
1383084	POWER SUPPLY	M7409	19950116	2812	121
1128714	SENSOR, PRESSURE	M7409	19940601	8170	121
1128735	GAUGE, VACUUM	M7409	19940607	2430	121
0872004	CALIBRATING MACHINE	M7409	19900122	8760	121
0872005	POWER CONTROL, HYDRAULIC	M7409	19900122	3694	121
0027002	ANALYZER, GAS	M7409	20000810	5500	128
1870650	SCOPE, OPTICAL FIBER W/TERMKIT	M7409	19970930	1235	128
1870651	LASER SOURCE	M7409	19970930	1325	128
1379710	CHAMBER, ENVIRONMENTAL	M7409	19940901	13710	121
1379755	POWER SUPPLY	J62365	19940912	1315	N/A
1870197	COMPUTER, DIGITAL	M7409	19970909	1825	128
1870198	COMPUTER, DIGITAL	M7409	19970909	1825	128
1870199	COMPUTER, DIGITAL	M7409	19970909	1825	125
1870200	DISPLAY UNIT, COLOR	M7409	19970909	619	125
1516179	DISPLAY UNIT, COLOR	M7409	19980508	555	125
0817920	COMPUTER SYSTEM, DIGITAL	M7409	19940901	3052	200
1379705	COMPUTER, DIGITAL	M7409	19940826	2127	103
1870201	DISPLAY UNIT, COLOR	M7409	19970909	619	128
1870202	DISPLAY UNIT, COLOR	M7409	19970909	619	128
0817788	MULTIMETER, DIGITAL	M7409	19930915	595	160
0817789	MULTIMETER, DIGITAL	M7409	19930915	595	160
0876431	BALANCE, DELTA RANGE	M7409	19881109	2179	121
1132479	MULTIMETER	M7409	19930909	6199	160
0026790	COMPUTER, NOTEBOOK	M7409	19970909	3461	200
2023162	THERMOMETER, TEMPERATURE	M7409	20000906	4900	128
0868092	MONITOR 17"	M7409	19960624	900	SHED
1373793	DISPLAY UNIT, COLOR	M7409	20000214	625	103
1373794	COMPUTER, DIGITAL	M7409	20000214	2044	103
1373795	TESTER, CABLE	M7409	20000214	7895	103
1373796	COMPUTER SYSTEM, DIGITAL	M7409	20000214	2300	170
1383177	STANDARD, PRESSURE LAB	M7409	19950602	3672	121
1383178	STANDARD, FIELD PRESSURE	M7409	19950602	3867	121
2023384	MULTIMETER, DIGITAL	M7409	20000928	1595	121
2023349	CONTROLLER, TEMP, DIGITAL	M7409	N/A	N/A	128
0027011	CONTROLLER	M7409	20000925	1440	128
1981245	ENVIRONMENTAL CHAMBER	M7409	19990120	5756	121
1389112	MONITOR, POWER LINE	M7409	19950527	500	160
2023984	GAUGE, PRESSURE, DIGITAL	M7409	20001016	2925	121
2023986	GAUGE, PRESSURE, DIGITAL	M7409	20001016	2925	121
1000208	MILLING-ENGRAVING MACHINE	M7409	19900724	18671	170E
1389116	TESTER, CABLE	M7355	19950527	7895	2133A
1389119	GENERATOR, RFI TRANSIENT	M7409	19950527	1920	119
1001093	CAMERA, RGB	M7409	19901019	1276	121

2023990	COMPUTER, DIGITAL	M7409	20001024	9073	160
2023991	COMPUTER, DIGITAL	M7409	20001024	9073	125
2023992	DISPLAY UNIT, COLOR	M7409	20001024	850	125
2023993	DISPLAY UNIT, COLOR	M7409	20001024	850	160
1981250	COMPUTER SYSTEM, DIGITAL	M7409	19990125	2997	103
1012868	TRANSPORT, MAGNETIC TAPE	M7409	19891228	4398	200
1131546	OPTICAL DISK SYSTEM	M7409	19920707	2793	200
1376348	FUNCTION GENERATOR	M7409	19940914	4409	121
1393306	DISPLAY UNIT, COLOR	M7409	19951004	800	SHED
1388494	TAPE DRIVE UNIT	M7409	19950411	979	MEZZ
1981254	PROGRAMMER, UNIVERSAL	M7409	19990223	9995	160
1871629	SOLDERING STATION	M7409	19980304	3500	128
1613803	METER, POWER, OPTICAL	M7409	19980304	1188	128
1025140	RECEIVER, TELECORDER	M7409	19900515	525	200
0045949	HARD DISK DRIVE, JAZ	M7409	19970327	500	170C
1383029	CPU	L7989	19950207	3228	SHED
1028147	PARTICLE COUNTER	M7409	19900529	3250	170E
1028165	PARTICLE COUNTER	M7409	19900605	3420	170E
1977154	GENERATOR, WAVEFORM	M7409	19980619	1705	121
0026581	JAZ DRIVE	M7409	19970402	500	200
0026591	JAZ DRIVE	M7409	19970402	500	200
1504694	MANOMETER, CAPACITANCE	M7409	19971215	2990	121
0027015	COMPUTER SYSTEM, DIGITAL	M7409	20001127	12050	103
2023995	DISPLAY UNIT, COLOR	M7409	20001127	1020	200
2023996	DISPLAY UNIT, COLOR	M7409	20001127	1020	200
1507808	CALIBRATION FIXTURE	M7409	19970619	850	119
1507807	PROBE, INJECTION	M7409	19970619	750	119
1507806	PROBE, INJECTION	M7409	19970619	750	119
1507793	MONITOR/RECEIVER, ISOTROPIC	M7409	19970613	6600	119
1507792	ANTENNA, 150-1000 MHZ	M7409	19970613	2700	119
1507791	PREAMPLIFIER, LEVELING	M7409	19970613	2500	119
1507790	AMPLIFIER, 10 WATT	M7409	19970613	5500	119
1507789	AMPLIFIER, 25 WATT	M7409	19970613	4200	119
1123334	MICROMANOMETER	M7355	19930108	1595	2275
1122613	GENERATOR, DIFFERENTIAL, PRESS	M7409	19920820	6400	SHED
1121902	MODULE CASE, 3 CHANNEL	M7409	19911104	1945	SHED
1032781	KIT, CALIBRATION & TEST	M7409	19910819	4961	121
1032780	KIT, CALIBRATION & TEST	M7409	19910819	4961	121
1032655	GENERATOR, RELATIVE HUMIDITY	M7409	19910813	1800	SHED
1032654	GENERATOR, RELATIVE HUMIDITY	M7409	19910813	1800	SHED
0872748	MONITOR, RELATIVE HUMIDITY	M7409	19910712	1800	121
0815680	ANALYZER, SPECTRUM	M7409	19950807	12990	119
0046259	GAUGE, CLUSTER	M7409	19980820	2800	121
0046088	PROBE, CURRENT	M7409	19970619	650	119
0046085	PROBE, ISOTROPIC FIELD	M7409	19970613	5500	119
1377220	GENERATOR, SIGNAL	M7409	19950825	4950	119
0027016	POWER SUPPLY, DC	M7409	20001212	1495	103
1516520	DISPLAY UNIT, COLOR	M7409	19961005	555	170C
1977153	COUNTER, UNIVERSAL	M7409	19980617	1639	128
1392744	DISK DRIVE UNIT	M7409	19950901	1000	SHED
1128828	MULTIMETER, BENCH	M7409	19940718	5495	128
1128829	MULTIMETER, BENCH	M7409	19940718	5495	121
1040857	OSCILLOSCOPE	M7409	19910819	6285	121
1040859	ELECTROMETER, PROGRAMMABLE	M7409	19910819	3259	160
1040860	ELECTROMETER, PROGRAMMABLE	M7409	19910819	3259	101

0027018	COMPUTER SYSTEM, DIGITAL	M7409	N/A	N/A	203A
1128830	CONTROLLER, PRESSURE	M7409	19940715	7433	121
1128831	CONTROLLER, PRESSURE	M7409	19940715	8462	121
1391720	TAPE DRIVE UNIT	M7409	19950720	1007	200
1871599	POWER SUPPLY, PROGRAMMABLE DC	M7409	19980130	1795	128
1981258	DISPLAY UNIT, COLOR	M7409	19990323	1565	160
1981236	COMPUTER, DIGITAL	M7409	19990325	2495	160
0816810	MULTIMETER, DIGITAL	M7409	19910925	1311	101
0816813	MULTIMETER	M7409	19911015	3064	103
0816817	RECEIVER, TELEVISION, COLOR	L7989	19911015	566	SHED
1121184	PROBE, ULTRASONIC	M7409	19920108	3529	128
0027019	COMPUTER SYSTEM, DIGITAL	M7409	20010125	3775	180
1131679	CHASSIS, PARTICLE AMP	M7409	19920817	5400	170E
1981279	COMPUTER, DIGITAL	M7409	19990526	2890	160
1981278	DISPLAY UNIT, COLOR	M7409	19990526	560	160
1981672	TEST UNIT, ULTRA VIOLET	M7409	19990603	51	121
1981673	TEST UNIT, ULTRA VIOLET	L7989	19990603	551	SHED
1131610	COMPUTER, DIGITAL	M7409	19920721	1175	170E
1040580	PRINTER, ADP	M7409	19910923	2138	101
1981285	COMPUTER, DIGITAL	M7409	19990609	720	121
1981286	COMPUTER, DIGITAL	M7409	19990609	720	160
0027027	POWER SUPPLY, DC	M7409	20010220	2120	128
0027023	POWER SUPPLY, DC	M7409	20010220	2120	121
0817207	CAMERA, COLOR	M7409	19930303	2214	126
0817209	CAMERA, COLOR	M7409	19930303	236	126
0817206	MONITOR, VIDEO, COLOR	M7409	19930303	1500	126
0817661	MULTIMETER	M7409	19930615	995	160
1389197	ELECTROSTATIC DISCHARGE SIMULA	M7409	19950603	6365	160
1132460	PRINTER, VARITYPER	M7409	19930901	3875	240D
1132463	DISPLAY UNIT	M7409	19930901	970	121
1132464	COMPUTER, W/FLOW METER	M7409	19930901	10440	121
1132376	PRINTER, LASERWRITER*PRO 600	M7409	19930729	1940	170C
0817734	CAMERA, VIDEO B/W	M7409	19930824	783	170E
1981305	COMPUTER, DIGITAL	M7409	19990630	700	160
1128133	DISPLAY UNIT, 20" COLOR	L7989	19930209	1805	SHED
1131665	OSCILLOSCOPE, DIGITIZING	M7409	19920814	14172	160
1132471	PRESS, HAND	M7409	19930903	7406	170E
0817777	OSCILLOSCOPE, HARD COPY OUTPUT	M7409	19930903	3614	160
0817778	OSCILLOSCOPE, 400MHZ	M7409	19930903	6481	160
0867595	CAMERA, VIDEO, COLOR	L7989	19960612	1268	SHED
1131611	DISPLAY UNIT, COLOR	M7409	19920721	669	170E
1383076	MULTIMETER	M7409	19950314	5495	121
1383063	GAUSSMETER, HALL EFFECT	M7409	19950224	1836	121
1981311	RECORDER, CHART	M7409	19990713	5580	121
1383398	MONITOR, VIDEO	M7409	19950830	13310	160
2024038	CONTROLLER, PRESSURE, SYSTEMS	M7409	20010515	17184	121
1660334	GENERATOR, WAVEFORM UNIVERSAL	981	19990720	4800	52
2026277	GENERATOR, WAVEFORM UNIVERSAL	M7409	19990720	4800	160
0026908	COMPUTER SYSTEM, DIGITAL	M7409	19990726	4405	200
0027031	ANALYZER	M7409	20010620	2995	125
1635694	CAMERA, DIGITAL	M7409	19991004	1999	128
1981336	MULTIMETER, DIGITAL	M7409	19990822	6727	160
2024032	COMPUER, DIGITAL	M7409	20010706	1679	125
2024033	DISPLAY UNIT, COLOR	M7409	20010706	719	125
1981340	OSCILLOSCOPE	M7409	19990929	24119	160

2024069	CHROMATOGRAPH, GAS	M7409	20010712	18377	125
2021575	ANALYZER, DATA SIGNAL	M7409	19991015	17022	128
2021650	POWER SUPPLY, PROGRAMMABLE, DC	M7409	19991025	3195	128
2021651	POWER SUPPLY, PROGRAMMABLE, DC	M7409	19991025	3195	128
2024093	TRANSDUCER, PRESSURE	M7409	20010806	3075	125
2024094	CONTROLLER, PRESSURE, FLOW	M7409	20010806	2460	125
0026944	CONTROLLER	M7409	19961006	1440	128
1504851	COMPUTER	M7409	19960702	2000	160
1504868	FLOW TRANSFER BOX	M7409	19960716	2000	121
0818492	TRANSDUCER	M7409	19960724	3100	121
0818498	SCOPE	M7409	19960730	2060	103
0818435	HARD DRIVE	M7409	19960816	565	125
1504633	GENERATOR, SIGNAL	M7409	19970916	4717	160
1871337	INTERROGATION SYSTEM	M7409	19971121	19000	128
2021794	EMULATOR	M7409	19991105	6880	128
0027035	CAMERA, DIGITAL SYSTEM	M7409	20010921	3995	125
2024107	COMPUTER, DIGITAL	M7409	20010921	1700	125
2024108	DISPLAY UNIT, COLOR	M7409	20010921	729	125
1392926	SERVER	M7409	19950914	1969	240D
1392927	SERVER	M7409	19950914	7969	240D
1392928	SERVER	M7409	19950914	7969	240D
2020018	SERVER	M7409	19991117	14767	240D
1383176	CAMCORDER	M7355	19950601	978	1237
2024096	COMPUTER, DIGITAL	M6399	20010921	2729	1202D
0011338	LENS, CAMERA	M7355	19890420	730	4281
0011339	LENS, CAMERA	M7355	19890420	730	4281
0011451	VECTORSCOPE	M7355	19900830	2250	4281
0011452	MONITOR, WAVEFORM	M7355	19900830	2250	4281
0161913	LENS, CCTV	M7355	19870424	2366	4281
2021875	DRIVER, DIODE, LASER	M7355	20000104	17929	4281
2021874	ILLUMINATOR SYSTEM	M7355	20000104	2091	4281
0240264	AMPLIFIER	M7355	19851104	3000	4281
1131688	ANALOG, DIGITAL	M7355	19920827	4417	4281
1131354	POWER SUPPLY	M7355	19920304	1115	4281
0817641	CAMERA, VIDEO B/W	M7355	19930517	716	4281
1871716	CAMERA, INFRARED	M7355	19980306	12995	4281
1383377	GENERATOR, WAVEFORM	M7355	19950823	2366	4281
1383378	GENERATOR, WAVEFORM	M7355	19950823	2366	4281
1128668	POWER SUPPLY, MICROPHONE	M7355	19940401	1589	4281
0817854	CAMERA, VIDEO B/W	M7355	19940314	676	4281
0817708	MICROSCOPE	M7355	19930802	1525	4281
2022352	COMPUTER, DIGITAL	M7355	20000511	6561	4281
0817640	CAMERA, VIDEO B/W	M7355	19930517	716	4281
2023099	GAUSSMETER, W/PROBE	M7355	20000811	1500	4281
0876811	SPECTRORADIOMETER, INFRARED	M7355	19890125	10850	4281
0876813	CONTROLLER, WAVELENGTH	M7355	19890125	4250	4281
2023139	OSCILLOSCOPE, DIGITAL	M7355	20000906	2390	4281
1871729	DISPLAY UNIT, COLOR	M7355	19980304	1445	4281
1871730	COMPUTER, DIGITAL	M7355	19980304	6230	4281
1040929	METER, LCR	M7355	19911030	9875	4281
0818370	MULTIMETER	M7355	19950627	335	4281
0817794	CAMERA, VIDEO, MIN.	M7355	19930916	783	4281
0817795	CAMERA, VIDEO, MIN.	M7355	19930916	783	4281

0012171	CAMERA, VIDEO, COLOR				
2024009	METER, DISTANCE, LASER	M7355	19890518	1995	4281
2024008	METER, DISTANCE, LASER	M7355	20010417	995	4281
2021257	OSCILLOSCOPE	M7355	20010417	995	4281
2021258	MULTIMETER, RMS	M7355	19991008	4059	4281
2021259	MULTIMETER, RMS	M7355	19991008	312	4281
1635521	AMPLIFER, DUAL PHASE LOCKIN	M7355	19991008	312	4281
1504963	VCR	M7355	19991018	3971	4281
1869199	OSCILLOSCOPE, DIGITAL, QUAD	M7355	19960926	549	4265
0011159	ELECTROMETER	M7355	19970904	12695	4279
0011267	METER, CONDUCTIVITY	M7355	19880907	1531	2223
1977461	COMPUTER, DIGITAL	1385	19881207	291	2211
1516355	DISPLAY UNIT, COLOR	M7355	19980805	2099	2289
1979760	DISPLAY UNIT, COLOR	M7355	19960930	630	2289
1132394	COMPUTER, DIGITAL	M7355	19980928	598	4265
0161762	GENERATOR, AUTOMATED GAS STD	M7355	19930804	1000	4265
2021842	PRESS, HYDRAULIC	M7355	19870324	4995	2223
0163806	WEIGHT SET	M7355	19991208	2866	2289
0163903	BALANCE, ANALYTICAL	M7355	19871005	1030	2214
1128629	METER, PH	M7355	19871014	2625	2214
0027006	METER, RESISTIVITY	M7355	19940325	1040	2214
2024113	CAMERA, DIGITAL	M7355	20011116	2208	4265
0027036	CAMCORDER, VIDEO, CAMERA	M7355	20011116	905	2289
2023980	PRINTER, ADP	M7355	20011116	2400	2275
2024111	DISPLAY UNIT, COLOR	M7355	20011116	1049	4265
2024112	DISPLAY UNIT, COLOR	M7355	20011116	600	4265
0027037	COMPUTER SYSTEM, DIGITAL	M7355	20011116	600	4265
2023988	MICROPROCESSOR	M7355	20011116	2695	2289
2024082	CONTROLLER, PRESSURE FLOW	M7355	20011116	1910	2214
2023987	CONTROLLER, PRESSURE FLOW	M7355	20011116	1875	2214
0027012	POWER SUPPLY	M7355	20011116	1875	2214
1981366	COMPUTER SYSTEM, DIGITAL	M7355	20011116	1425	2214
2024103	PUMP	M7355	20011116	2302	2289
2024133	ANALYZER, SPECTRUM	M7355	20011116	819	4277
2024132	SERVER, VIDEO	M7355	20011121	2685	2289
1981379	WORKSTATION	M7355	20011126	1300	2214
1981378	MULTIPLEXER	M7355	20011203	6215	2211
0165869	RECORDER-8 CHANNEL	M7355	20011203	5000	2211
1504767	POWER SUPPLY	M7355	19880126	6950	2223
1121220	DETECTOR, VAPOR	M7355	19960430	3899	4277
0817691	MULTIMETER, DIGITAL	1385	19911211	60715	4265
2027528	CHAMBER, TEMPERATURE/HUMIDITY	M7355	19930713	404	4279
1981231	WATER SYSTEM, NANOPURE	M7355	20020110	11605	2214
0027045	COMPUTER SYSTEM, DIGITAL	M7355	20010920	4199	2214
0239549	DC CALIBRATOR	M7355	20020215	2305	2214
0240175	CIRCULATING BATH, REFRIGERATED	M7355	19851227	2450	4279
0240176	CIRCULATING BATH, REFRIGERATED	M7355	19850808	2220	2214
1391701	OPTICAL READER, DATA ENTRY	M7355	19850808	2220	2223
1899259	OPTICAL READER, DATA ENTRY	M7355	19950718	1098	4265
1635548	METER, CONDUCTIVITY	M7355	19970729	710	4265
0864032	PRINTER, AUTOMATIC DATA PROCES	M7355	20000307	1082	2214
1383105	CPU	M7355	19880819	538	2223
1383119	CHROMATOGRAPH, ION	M7355	19950405	2325	2223A
0817839	TERMINAL, MICRO	M7355	19950410	39878	4277
1870049	COMPUTER, DIGITAL	1385	19940128	595	238
		M7355	19970107	4115	2223

1391236	DETECTOR, AMPEROMETRIC	M7355	19950614	3480	2214
1132458	GENERATOR, VAPOR	M7355	19930901	6967	2214
2022274	POWER SUPPLY, LOW CURRENT	M7355	20000419	3575	2214
2022275	POWER SUPPLY, HIGH CURRENT	M7355	20000419	3150	2214
0651847	SPECTROPHOTOMTR	M7355	19830930	6938	2223
1131826	PRINTER, COLOR	M7355	19921020	3200	2223A
1131827	DISPLAY UNIT, COLOR, VID	M7355	19921020	1115	2223A
1868482	COMPUTER, DIGITAL, G6-266	M7355	19970723	1669	4265
1384629	DISPLAY UNIT, COLOR	M7355	19960228	1750	2289
0500543	METER, WET TEST	M7355	19851004	2814	4277
0500544	METER, WET TEST	M7355	19851004	2880	2214
1504596	MONITOR	M7355	19970829	625	4265
0594602	FORMING MACHINE	M7355	19840427	13355	4279
0636494	FORMING MACHINE	M7355	19841107	2300	4279
0651848	RECORDER	M7355	19830930	1000	2223
1121399	DETECTOR, VAPOR	1385	19920220	60715	2214
0872568	CONTROLLER	M7355	19910510	9950	2214
1122025	RECORDER, STRIP CHART	M7355	19911211	6415	2214
1122395	GENERATOR, VAPOR	M7355	19920427	6635	2223
1122396	GENERATOR, VAPOR	M7355	19920427	5635	2214
1122361	COULMETER	M7355	19920416	1150	2214
1122306	MICROSCOPE	M7355	19920303	28353	2223A
1122360	CONTROLLER, FLOW	M7355	19920406	10150	2214
1122615	FLOW CONTROLLER	M7355	19920812	10150	2214
1122576	DETECTOR, VAPOR	1385	19920807	2900	2214
1122492	ELECTROMETER	M7355	19920616	3585	4279
1122717	HARD DRIVE	M7355	19920909	568	4265
1123342	RECORDER, CHART	M7355	19930112	1360	2223
1123341	RECORDER, CHART	M7355	19930112	1360	2223
1123118	CAMERA SYSTEM	M7355	19920113	1263	2223A
1123846	COUNTER	M7355	19930514	9500	4279
1124059	SPECTROMETER	M7355	19930707	1062	2214
0684233	PICOAMMETER	M7355	19841107	7950	2223
1123987	MICROSCOPE	M7355	19930621	2035	2223A
1037070	CONTROLLER, TQCM	M7355	19920227	6975	2223
2022484	COMPUTER, DIGITAL	M7355	20000602	4075	2223
2022485	DISPLAY UNIT, COLOR	M7355	20000602	1725	2223
1132344	CONTROLLER, FLOW, HCS	M7355	19930720	10250	4279
1132341	METER, DRY TEST	M7355	19930716	1096	2214
0695817	MULTIMETER	M7355	19841107	349	2214
0695818	MULTIMETER	M7355	19841107	349	2223
0695820	INDICATOR, RH/TEMP	M7355	19841107	2735	2214
0695838	MULTIMETER	M7355	19841107	1315	4279
0817690	MULTIMETER, DIGITAL	M7355	19930713	404	4279
0817692	MULTIMETER, DIGITAL	M7355	19930713	404	4279
0817892	COMPUTER, DIGITAL	M7355	19940720	1320	2214
0747844	RECORDER	M7355	19850102	4285	2214
0747910	OVEN	M7355	19850114	1030	2214
1133310	DETECTOR, VAPOR	M7355	19920922	148750	4279
1133311	DETECTOR, VAPOR	M7355	19920922	148750	4279
0816806	METER, WET TEST	M7355	19910925	3088	2214
0816807	METER, WET TEST	M7355	19910925	2800	2214
0816808	METER, WET TEST	M7355	19910925	8700	2214
1383333	CPU	M7355	19950816	1802	4279
1981700	ANALYZER, HYDRAZINE	M7355	19950809	6523	2214

1981701	ANALYZER, HYDRAZINE	M7355	19950809	6523	2214
1981702	ANALYZER, HYDRAZINE	M7355	19950809	6523	2214
1981698	ANALYZER, HYDRAZINE	M7355	19950809	6523	2214
1981699	ANALYZER, HYDRAZINE	M7355	19950809	6523	2214
0861912	MANOMETER, ELECTRONIC	1385	19880407	1085	2214
0862483	TEST SET, CAPACITOR	M7355	19880526	1526	4279
0862563	OSCILLOSCOPE	M7355	19881202	2891	4279
0862753	CHAMBER, ENVIRONMENTAL	1385	19880624	9540	5A
1383918	CHROMATOGRAPH, GAS SYSTEM	M7355	19931020	72602	2214
0863964	METER, CHROMA	M7355	19880812	4620	2223
2021420	ANALYZER, IMPEDANCE	M7355	20000722	22800	2214
2021421	POWER SUPPLY	M7355	20000722	1200	2214
0867673	CALIBRATOR, FLOW	M7355	19900830	477	2214
0867674	CALIBRATOR, FLOW	M7355	19900830	713	2214
0867675	CALIBRATOR, FLOW	M7355	19900830	713	2214
0026570	JAVA STATION	M7355	19970219	790	4265
0026953	CONTROLLER, PRESSURE, FLOW	1385	20000726	1875	4277
0026954	CONTROLLER, PRESSURE, FLOW	1385	20000726	1875	4277
0026955	POWER SUPPLY, W/READOUT	M7355	20000726	1426	2214
0870072	RECORDER, TRANSIENT WAVEFORM	M7355	19890905	9590	2223
0870992	BATH, CONSTANT TEMPERATURE	M7355	19891026	1988	2223
0870996	GENERATOR, VAPOR	M7355	19891027	6065	2214
0871032	RECORDER-8 CHANNEL	M7355	19891107	11395	2223
1128721	SPECTROMETER, INFRARED	M7355	19940601	32913	2214
1128722	SPECTROMETER, INFRARED	M7355	19940601	32913	2214
1128723	SPECTROMETER, INFRARED	M7355	19940601	32913	2214
1128724	SPECTROMETER, INFRARED	M7355	19940601	31873	2214
1128732	SPECTROMETER, INFRARED	M7355	19940601	32913	2214
1128733	SPECTROMETER, INFRARED	M7355	19940601	32913	2214
0872147	HYGROMETER	M7355	19900411	5950	2214
1980621	DETECTOR, HYPERGOLIC FUEL	M7355	19981217	5410	2214
1980622	DETECTOR, HYPERGOLIC FUEL	M7355	19981217	5410	2214
1980623	DETECTOR, HYPERGOLIC FUEL	M7355	19981217	5410	2214
1380641	DISPLAY UNIT, COLOR	M7355	19980508	601	4265
0875643	GENERATOR, SPAN PAC	M7355	19880705	5540	2214
0875921	CONTROLLER, FLOW, TEMP, HUMID, SYS	M7355	19880819	8682	4279
0876494	MICROPROCESSOR, 5 CHANNEL	M7355	19881117	1650	4277
2023419	ANALYZER, GAS DETECTOR	M7355	20000105	11395	4277
1142183	COPYBOARD, ELECTRONIC	1385	19930729	3656	4268
1000238	CAMERA, SUPPORT	M7355	19900706	4890	2289
1000279	HYGROMETER	M7355	19900726	6590	2214
1000280	HYGROMETER	M6744	19900726	6590	3018M
2023542	ANALYZER, MULTIPLE GAS	M7355	20000130	11395	2214
1027893	CONTROLLER HUMIDITY TEMPERATUR	M7355	19900501	9450	2223
1028561	SPAN PAC	M7355	19900705	6055	2214
0818465	TAPE DRIVE	M7355	19960911	950	2289
1504929	GAS CHROMATOGRAPH	M7355	19960910	3680	4277
1504928	AUTO SAMPLER	M7355	19960910	1877	4277
1504927	MASS SPECTROMETER	M7355	19960910	52210	4277
1504926	PRINTER, LASERJET	M7355	19960910	2024	4277
1131488	CALIBRATOR, DC	M7355	19920618	3295	4279
1040096	DISK DRIVE UNIT	M7355	19910830	630	4265
1040850	GENERATOR, VAPOR	M7355	19910805	6635	2214
1040861	ELECTROMETER, DIGITAL	M7355	19910819	6840	2223

2024655	MULTIMETER, SINGLE PHASE	M7355	20010105	1338	2214
1868628	DISPLAY UNIT, COLOR	M7355	19970724	1250	4265
1040968	GENERATOR, SPAN PAC	M7355	19920219	3975	2223
1979238	CONTROLLER, FLOW, HCS	M7355	19980625	11300	2275
1132230	SPECTROMETER, PORTABLE	M7355	19930617	32400	2289
2023299	SCRUBBER, OXIDIZER SYSTEM	M7355	20010316	44661	4279
2023300	SCRUBBER, OXIDIZER SYSTEM	M7355	20010316	44661	4277
1872358	COMPUTER, DIGITAL	M7355	19980112	2040	4265
2024034	DETECTOR, GAS LEAK	1385	20010505	907	2214
2024004	BALANCE	M7355	20010505	3365	2214
0027029	MULTIMETER, DIGITAL	M7355	20010515	995	2275
2026035	PUMP, SYRINGE	M7355	20010517	1140	2214
1981887	BALANCE	M7355	19990810	999	2214
1515622	COMPUTER SYSTEM, DIGITAL	M7355	19960828	1788	4265
0045956	DISK DRIVE DRIVE UNIT, CD-ROM	M7355	19970403	646	4265
2021106	ANALYZER, HYPERGOLIC FUEL	M7355	19990924	5410	2214
2021107	ANALYZER, HYPERGOLIC FUEL	M7355	19990924	5410	2214
2021108	ANALYZER, HYPERGOLIC FUEL	M7355	19990924	5410	2214
2021109	ANALYZER, HYPERGOLIC FUEL	M7355	19990924	5410	2214
2021567	ANALYZER, ELECTROCHEMICAL	M7355	19990913	5350	2214
2021568	CELL SAND, ELECTROCHEMICAL	M7355	19990913	5350	2214
2021569	GALVANOSTAT, ELECTROCHEMICAL	M7355	19990913	3500	2214
2021570	COMPUTER, DIGITAL	M7355	19990913	5350	2214
2021571	DISPLAY UNIT, COLOR	M7355	19990913	5350	2214
2021606	SEPARATOR, SONIC SIFTER	M7355	19991018	5011	2289
1126504	DISK DRIVE UNIT	M7355	19920407	690	4265
0011737	MULTIMETER, DIGITAL	M7355	19901126	269	2289D
0104655	RECORDER, VIDEO	M7355	19890420	3045	2289
0240266	AMPLIFIER	M7355	19851104	3000	2289B
0026741	OSCILLOSCOPE	M7355	19970813	911	2289D
0026897	AMPLIFIER, DUAL TRACE	M7505A	19990629	2094	LETF
0818361	MULTIMETER	M7355	19950306	289	2289D
0026756	OSCILLOSCOPE	M7355	19970827	4573	2289D
0867757	COMPUTER, DIGITAL	M7355	19990103	4079	2289D
1131641	PULSE FUNTION GENERATOR	M7355	19921020	5000	2289D
0818371	MULTIMETER	M7355	19950627	335	2289D
1131607	MULTIMETER, DIGITAL	M7355	19920721	399	2289D
1981284	METER, LASER	M7409	19990603	2565	STORG
0026900	AMPLIFIER, DUAL TRACE	M7505A	19990629	2094	LETF
0026896	AMPLIFIER, DUAL TRACE	M7505A	20000304	2094	LETF
0026898	AMPLIFIER, DUAL TRACE	M7505A	19990629	2094	LETF
1981283	OSCILLOSCOPE	M7505A	19990603	7700	LETF
1132359	MONITOR, COLOR	M7355	19930728	2895	2275

**UNIVERSITY-AFFILIATED SPACEPORT
TECHNOLOGY DEVELOPMENT CONTRACT (USTDC)
PERFORMANCE SURVEILLANCE AND AWARD FEE PLAN**

I. Introduction

The USTDC is a Performance Based Task Order Contract . The intent is to issue Task Orders to specify "what" the Government needs, and to rely on the Contractor to determine "how" the result (product or service) is to be provided. Government employees will normally not be directly involved with day-to-day Contractor activities (oversight), but will perform a performance surveillance and assessment (insight) role.

Award Fee is intended to encourage and reward the Contractor for safe, high quality, cost-conscious performance in fulfilling the requirements set forth in the contract; to provide flexibility for changes in management and performance emphasis; and to promote effective communications. Award fee determinations will consider both objective and subjective measurements of the contractor's performance in accordance with this Plan.

This Performance Surveillance and Award Fee Plan's objective is to provide accurate assessments of the Contractor's activities. These assessments will evaluate the quality and quantity of products and services provided by the contractor. The Government, as needed, will verify the accuracy of contractor reporting (reports, performance metrics, or insight metrics). Where contractor reporting does not provide sufficient insight, the Government will initiate independent surveillance assessments of contractor activities. This Performance Surveillance and Award Fee Plan will define and document:

- The Government's planned approach to surveillance of the Contractor's performance;
- The contract level metrics and other key performance indicators to be recorded and reported by the Contractor;
- Other areas of emphasis that will be included in the Award Fee evaluation;
- Responsibilities of the cognizant NASA/KSC and Contractor parties in the surveillance and Award Fee processes;
- The process used to determine the amount of Award Fee earned by the Contractor.

II. Definitions

Acceptable Quality Level (AQL): The AQL defines the maximum number of defects or maximum error rate that can be considered satisfactory on the average for a particular performance indicator. For this contract, the AQL relates to an adjective rating of "satisfactory" and a numerical rating of 65.

Areas of Emphasis: The document used by the Government to document the specific areas of contract performance that will be emphasized in the award fee evaluation. For the USTDC, areas of emphasis will be documented in this Performance Surveillance and Award Fee Plan. Any changes to the Areas of Emphasis will be reflected in revisions to this Plan, normally issued at least fifteen (15) days prior to the start of the evaluation period.

Award Fee: The fee (profit) awarded to the contractor to encourage and reward the Contractor for safe, high quality, cost-conscious performance in fulfilling the requirements set forth in the contract.

Award Fee Committee (AFC): The AFC is the committee responsible for quarterly review of the Contractor's performance in support of the Contract Technical Manager (CTM). The committee is comprised of various NASA/KSC offices including Spaceport Engineering & Technology Directorate Division and Office Chiefs or designated representatives, NASA Resource Management Office representatives, Safety and Mission Assurance representative, Environmental Program Office representatives, and the Contracting Officer.

Contracting Officer (CO): The NASA Contracting Officer with overall responsibility for the contract.

Contract Technical Manager (CTM): The NASA Contracting Officer's Technical Representative (COTR) with primary responsibility for performance surveillance and overall technical management of the contract.

Contracting Officer's Technical Representative (COTR): See Contract Technical Manager (CTM)

Contract Award Fee Board (CAFB): The CAFB is the board responsible for annual review of the Contractor's performance and determination of the earned Award Fee. The board includes the Fee Determination Official (FDO) and other designated members of NASA/KSC senior management (Director of Procurement, Director of Spaceport Engineering & Technology, Director of Personnel, Chief Financial Officer (CFO), etc.)

Cost-Plus-Award-Fee Contract (CPAF): A cost-reimbursement contract that provides for a fee consisting of an award amount, based upon a judgemental evaluation by the Government, sufficient to provide motivation for excellence in contract performance.

Critical Metric: Those metrics considered key indicators of contract performance, in areas critical to the success of the contract, to be weighted heavily in the Award Fee evaluation process.

Critical Milestone: Those milestones determined by the Task Order Manager (TOM) to be critical to the success of a Task Order, and weighted more heavily than other milestones in the Award Fee evaluation process.

Customer Satisfaction Survey: A survey used by the Contractor and the TOM to collect feedback directly from customers on their satisfaction with contract products and services.

Data Requirement Description (DRD): A deliverable data element required by the contract, defined in the contract's Data Requirements List.

Fee Determination Official (FDO): The FDO is the member of NASA/KSC's Senior Management responsible for final determination of the Award Fee score and amount of fee earned.

Internal Surveillance Report: The contract deliverable used to provide the Government with a quarterly summary of contract metrics, and self-assessment of contract performance.

Metric: A metric is a defined measurement of some aspect of the Contractor's performance.

Milestone: A milestone is a predefined deadline for the completion of a task or delivery of a product or service.

Performance-Based Contracting (PBC): Structuring all aspects on an acquisition around the purpose of the work to be performed as opposed to either the manner by which the work is to be performed or broad and imprecise statements of work.

Performance Indicator: A performance indicator is a characteristic of an output of a work process that can be measured (see "metric").

Performance Surveillance: NASA/KSC's assessments of the Contractor's activities used to evaluate the quality and quantity of products and services provided by the Contractor.

Standard: A standard is an acknowledged measure of comparison.

Standard of Performance (SOP): SOP's define the desired level of performance or quality of output for a particular performance indicator. For this contract, the SOP relates to an adjective rating of "excellent" and a numerical rating of 95.

Surveillance: Those actions taken by the Government to check products and services to determine that they meet the requirements of the contract and all issued Task Orders.

Task Order (TO): Document used to define contract tasks, requirements, funding targets and limits, milestones, performance indicators, and performance standards. Task Orders are drafted by the Task Order Manager, approved by the Contract Technical Manager, and issued by the Contracting Officer.

Task Order Manager (TOM): The TOM is the NASA/KSC project manager or technical representative responsible for generation of the Task Order, as well as insight and evaluation of the Contractor's performance on the Task Order.

Task Order Performance Evaluation Survey: A survey used by the CTM to collect performance feedback from TOMs on the Contractor's performance of each Task Order.

Task Order Plan (TOP): Document used by the Contractor to define its approach to accomplishment of each Task Order, including expected costs and phasing, skill mix and other resources, schedule, milestones, deliverables, metrics, and risk assessment. The TOP is submitted by the Contractor and approved by the Task Order Manager and the Contract Technical Manager.

Trend Metric or Statistic: Those measurements that are useful to collect and evaluate over time to monitor the health of a process and/or help define standards.

III. Performance Surveillance

A. General

Metrics and other performance indicators will be defined at two levels: Contract level and Task Order level.

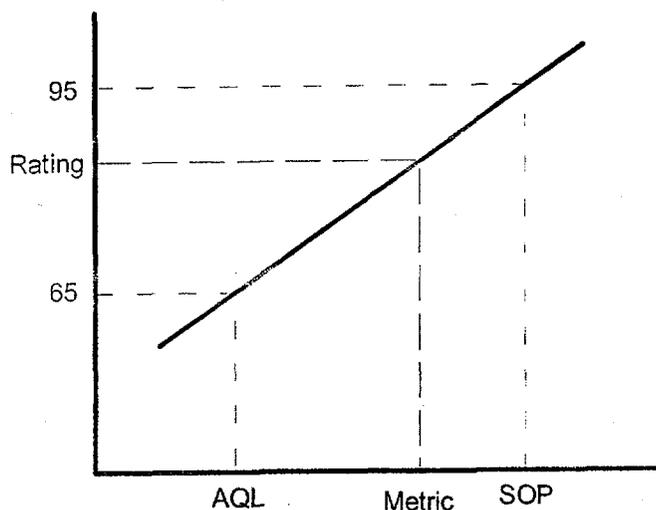
Contract level metrics are defined and documented in the Contractor's Internal Surveillance Plan (DRD-002), and deal with summary level measurements or averages across all Task Orders. When averages are used, weighting by dollar amounts or other factor may be used, as appropriate. Additions, deletions and changes to contract level metrics will be negotiated with the Contractor and reflected in revisions to the DRD.

Task Order level metrics will be defined on individual Task Orders.

Standards of Performance (SOP) define the desired level of performance or quality of output for a particular performance indicator. For this contract, the SOP relates to an adjective rating of "excellent" and a numerical rating of 95. Whenever feasible, quantitative standards will be identified. In other cases, the SOP will be defined qualitatively.

Acceptable Quality Levels (AQL) define the maximum number of defects or maximum error rate that can be considered satisfactory on the average for a particular performance indicator. For this contract, the AQL relates to an adjective rating of "satisfactory" and a numerical rating of 65. Whenever feasible, a quantitative AQL will be identified. In other cases, the AQL will be defined qualitatively.

In general, the SOP and AQL define a simple linear relationship between a measurement and the rating earned for a particular performance indicator, on a zero to 100 scale, as shown below:



$$\text{Metric Rating} = 65 + 30 \times (\text{Metric} - \text{AQL}) / (\text{SOP} - \text{AQL})$$

Contract level SOPs and AQLs will be negotiated with the Contractor and reflected in revisions to DRD-002. Task Order level SOPs and AQLs will be negotiated with the Contractor as part of the Task Order planning process and reflected on Task Orders, and/or Task Order Plans. Care will be taken to ensure that SOPs and AQLs are defined which provide the Contractor the opportunity to earn a rating of 100 for any particular performance indicator. Ratings above 100 will be treated as 100.

Measurements and standards are usually stated in terms of rates; a means of expressing something as it relates to a fixed amount of something else (for example: number of successes divided by the number of attempts).

Trend metrics will be used when measurements are feasible but performance standards are not well established. Trend metrics will be evaluated subjectively until performance standards can be defined and agreed to.

Areas of performance that are not readily measurable will be evaluated subjectively.

Except as noted, the Contractor shall collect all metric data on a monthly basis in a management information system (database) accessible to the CO, CTM and all TOMs. The database shall summarize the data quarterly and yearly, and retain data for the life of the contract. Data shall be reported quarterly to the Government in the Internal Surveillance Report (DRD-003).

B. Critical Metrics and Areas of Emphasis

The metrics and areas of emphasis defined in this section are considered to be key indicators of contract performance in areas critical to the success of the contract. Performance in these areas will be weighted heavily in the Award Fee evaluation process.

The Contractor will be notified of any changes to the key indicators and/or areas of emphasis no later than 15 days prior to the start of each performance evaluation period.

1. Safety, Reliability and Quality Assurance

The effectiveness of all USTDC related Safety, Reliability, and Quality Assurance functions will be evaluated, including the following areas:

- Compliance with KSC policies, procedures, directives, and inspection services, and the contractor's approved DRDs in these areas;
- Safety during hazardous operations, comprehensive safety training, effective safety awareness program, and timely reporting of accident/incidents and implementation of recommended corrective actions;
- Documentation of QA provisions for adequacy and utilization in the control of USTDC processes;
- Control, utilization, and improvement of QA procedures.
- Compliance with ISO 9001:2000 standards.

- Major Breach of Safety or Security – Note: An overall performance evaluation and fee determination of zero shall be made for any evaluation period when there is a major breach of safety or security as defined in NFS 1852.223-75, Major Breach of Safety or Security.

2. Milestone performance

Official milestones will be established and documented in Task Orders. Milestone dates are negotiated as part of Task Order planning process. Milestone dates revised by the Contractor's approved Task Order Plan shall be reflected in revisions to the Task Order.

The Task Order Manager may revise (delay or delete) milestones with a TO Revision to account for circumstances not within the Contractor's control.

Milestones designated as "Critical Milestones" on the TO will carry extra weight in the evaluation process.

3. Cost Performance

Efforts and initiatives made by the contractor to control costs will be evaluated.

4. Task Order Performance Evaluation Survey

This metric is based on results of a quarterly Performance Evaluation Survey, which will be completed by the Task Order Manager for each Task Order. The survey consists of questions relating to technical, management, schedule, cost, and other areas of emphasis. The Contractor is not required to collect or report this data.

5. Task Order Ratings

Each Task Order will be assessed against the criteria, SOPs and AQLs negotiated for that Task Order. A weighted average of metrics and other factors will be used to determine a rating (0-100) for each Task Order by the Task Order Manager when completing the Task Order Evaluation Survey. Task Order ratings for all Task Orders will be rolled up (weighted average by labor cost) to a contract level Task Order Rating. The Contractor is not required to collect or report this data.

6. University affiliation

The effectiveness of the Contractor's university affiliations will be evaluated.

7. Outreach Program

The effectiveness of the Contractor's Outreach Program will be evaluated.

8. New Technology Development and Reporting

The contractor's success in the development, identification, and reporting of new technologies will be evaluated.

C. Other Metrics and Areas of Emphasis

Although not considered as critical as the metric areas described above, the metrics and areas of emphasis described in this section will also be considered in the award fee evaluation.

1. Procurement Performance Metrics

The Contractor's compliance with procedures such as source selection, sole source justification, acceptance testing, shipping and receiving inspection, will be evaluated.

2. Small Business Subcontracting Goals

The Contractors success in meeting any proposed SB/SDB subcontracting goals in support of NASA's Socioeconomic Programs will be evaluated.

3. Housekeeping

The Contractor's ability to maintain safe and efficient work areas will be evaluated.

4. Reporting / Deliverables

The Contractor's success in delivery of DRD items per their required delivery schedules will be evaluated, based on objective, contract-wide metrics.

5. Technical Performance Feedback from Task Order Managers.

Significant positive elements and major accomplishments as well as negative elements, issues and concerns noted by Task Order Managers in the quarterly evaluation surveys will be considered in the award fee evaluation. The Contractor is not required to collect or report this data.

6. Resource Management

Feedback from the NASA Resources Management Office on the quality of cost accounting and financial reporting, the timeliness of resolution of resource management issues, and the effectiveness of communications with NASA resource management interfaces will be considered in the award fee evaluation.

The effectiveness of the Contractor's resource management systems in resource planning and control, and the ability to adapt to changing resource requirements caused by issuance of new Task Orders will also be evaluated.

7. Property and Supply Management

The Contractor's success in managing all assigned government property and supplies will be evaluated.

8. Contractor's Internal Surveillance Report and Self Assessment

The Contractor's quarterly Internal Surveillance Report and self assessment presentation will be evaluated.

9. Independent Assessments and Audits

NASA/KSC Safety and Mission Assurance personnel will conduct assessments and audits to verify the Contractor's compliance with documented requirements. Nonconformances will be identified, documented and reviewed with the Contractor. Corrective Action Requests (CAR) will be issued and tracked until resolution.

10. Continuous Improvement

The Contractor's ability to demonstrate continuous improvement in products, services, processes and procedures will be included in the award fee evaluation.

11. Environmental Compliance

The Contractor's compliance with all environmental requirements will be evaluated quarterly by NASA/KSC's Environmental Program Office.

12. Labor Relations

The Contractor's labor relations will be evaluated quarterly by NASA/KSC's Industry Labor Relations Office.

13. Equal Opportunity

The Contractor's demonstration of equal opportunity in all personnel decisions will be evaluated quarterly by NASA/KSC's Equal Opportunity Office.

14. Commercialization

The Contractor's success in exploiting commercialization opportunities will be considered a positive factor in the award fee evaluation.

15. Customer Complaints

The primary purpose of customer complaint surveillance tool is to notify the Government of a problem that may warrant further assessment action. If used by

Task Order Managers, the CTM will collect metrics contract wide for consideration in the award fee evaluation.

IV. Award Fee Evaluation

Award fee determinations will be based on both objective contractor provided performance metrics and subjective judgments by the Government of the contractor's performance using the surveillance tools, procedures and evaluation criteria as specified in this Performance Surveillance and Award Fee Plan.

For the purpose of award fee determinations on this contract, the procedures indicated below will be followed.

A. General

Award fee will be determined annually by the Fee Determination Official (FDO) who is Chairperson of the Contract Award Fee Board (CAFB). The CAFB is comprised of the FDO, the Spaceport Engineering and Technology Director, other line management directors, the Director of Safety and Mission Assurance, the Procurement Officer or Deputy, and the NASA/KSC Chief Financial Officer or designee.

The award fee will be determined based upon a review by the CAFB of the consolidated recommendation prepared by the Contract Technical Manager (CTM), the Contracting Officer (CO), and the Contractor's additional data, if any.

The CTM will be the focal point for the accumulation and development of award fee evaluation reports, reviews, and presentations as well as discussions with Contractor management on award fee matters.

B. Evaluation Criteria

Evaluation criteria encompass the safety, quality, timeliness, efficiency, and cost effectiveness of the Contractor's performance of contract requirements, as detailed in this plan. Any changes to the specific metrics or other areas of directed emphasis will be identified and communicated to the Contractor at least fifteen (15) days prior to the start of the evaluation period by revision of this plan.

The CO or CTM may notify the Contractor at a later date of alterations in areas of emphasis (including additions or deletions). Such alterations will be prospective and will allow the Contractor time to react or implement the alterations.

C. Reviews

The Contractor's performance will be reviewed in the manner described below.

1. Concurrent Reviews

Contractor performance levels which require remedial attention or which may be expected to adversely affect award fee ratings will be made known to the Contractor by the CTM (either orally or in writing) on a current basis, as necessary.

2. Quarterly Reviews

Contractor's Review:

The Contractor shall conduct a contract review on a quarterly basis. The contractor shall prepare an Internal Surveillance Report (DRD003) and present highlights and a self assessment at a review meeting attended by the Contractor management team, the CO, CTM, the Award Fee Committee, and other members of the NASA technical team.

The report shall include metrics and other data that supports the Contractor's accomplishment in the metrics areas and other areas of emphasis defined in this plan. Metrics data in the report shall include historical trend data from all prior periods.

The review meeting shall cover all aspects of contract operations, both technical and business, including a concise summary of performance, and a risk assessment of each major element of the contract.

Contract Technical Manager Review:

A quarterly review of the Contractor's performance will be performed by the CTM using input from the contractor's Internal Surveillance Report, and cognizant evaluators, including all Task Order Managers. The quarterly review will be summarized in an Award Fee Report and a copy transmitted to the Contractor, the Award Fee Committee, and the Fee Determination Official. The report provides both positive and negative feedback to the contractor on their performance and serves as a documented record of contract accomplishments.

3. Annual Reviews

Contractor's Review:

At the end of each performance period the Contractor's Internal Surveillance Report shall include an annual summary of all metrics for the period, in addition to historical monthly or quarterly trend data.

Contract Technical Manager Review:

Within thirty (30) calendar days following each performance period, the CTM will prepare a report on the evaluation of the Contractor's performance. The Contractor and the Award Fee Committee will be furnished a copy of the draft report without an adjective rating or numerical score assigned for the period. Within seven (7) calendar days from receipt of the evaluation report, the Contractor may, if so desired, submit in writing to the CTM additional data bearing on the performance evaluation. Comments from the Contractor and the Award Fee Committee will be incorporated in the final report to the CAFB.

D. Fee Determination

1. Award Fee Presentation to the CAFB

The CAFB will review the final award fee evaluation report seven (7) calendar days before the scheduled presentation.

Within 45 days following the end of the performance period, the CTM will present a summary of the Award Fee Report to the CAFB and the AFC.

The Contractor may also request an opportunity to give a presentation to the CAFB concerning his performance.

After consideration of these data, the CAFB will assist the FDO in determining an appropriate amount of award fee.

2. Award Fee Determinations

Award fee determinations, up to the maximum potential amounts specified in the contract schedule, will be made by the Fee Determination Official (FDO). Award fee determinations will be based on both objective metrics and subjective judgments by the Government of the Contractor's performance using procedures and evaluation criteria as specified in this Performance Surveillance and Award Fee Plan.

The FDO will notify the Contracting Officer in writing of the amount of award fee, if any, determined to have been earned during the evaluation period. The Contracting Officer will notify the Contractor of such determination. This determination is not subject to appeal under the Disputes clause or any other provision of the contract.

Following notification of the award fee determination, the Contracting Officer will issue a modification to the contract.

3. Numerical Ranges/Adjective Definitions and Award Fee Scale

Exhibits to this Plan set forth the adjective ratings, definitions, and associated numerical ranges to be used to define the various levels of performance under the contract. The Award Fee Scale sets forth in tabular form the award fee earned at various performance ratings.

SCHEDULE 1 – NUMERICAL RANGES /ADJECTIVE DEFINITIONS

<u>NUMERICAL RANGE</u>	<u>ADJECTIVE RATING</u>	<u>ADJECTIVE DEFINITIONS</u>
91 – 100	EXCELLENT	The Contractor's overall performance of contract requirements is of exceptional merit marked by timely, efficient, and economical performance. Exemplary performance in all areas of directed emphasis. Very minor deficiencies with no adverse effect on overall performance.
81 – 90	VERY GOOD	The Contractor is exhibiting very effective performance and is fully responsive to contract requirements. Majority of performance requirements are timely, efficient, and economically conducted. Only minor deficiencies are noted.
71 – 80	GOOD	The Contractor is performing effectively and is fully responsive to contract requirements. There are reportable deficiencies which have minor identifiable effect on overall contract performance.
61 – 70	SATISFACTORY	The Contractor meets or slightly exceeds the minimum acceptable contract requirements with adequate results. There are reportable deficiencies with identifiable, but not substantial, effects on overall contract performance.
60 AND BELOW	UNSATISFACTORY	The Contractor does not meet minimum acceptable standards, requires remedial action, or has deficiencies in one or more areas that adversely affect overall contract performance.

SCHEDULE 2 – AWARD FEE SCALE

<u>ADJECTIVES</u>	<u>NUMERICAL SCORE</u>	<u>% AVAILABLE AWARD FEE</u>
EXCELLENT	100	100
	99	99
	98	98
	97	97
	96	96
	95	95
	94	94
	93	93
	92	92
	91	91
VERY GOOD	90	90
	89	89
	88	88
	87	87
	86	86
	85	85
	84	84
	83	83
	82	82
	81	81
GOOD	80	80
	79	79
	78	78
	77	77
	76	76
	75	75
	74	74
	73	73
	72	72
	71	71
SATISFACTORY	70	70
	69	69
	68	68
	67	67
	66	66
	65	65
	64	64
	63	63
	62	62
	61	61
UNSATISFACTORY	60	0
	59	0
	0	0

SAFETY AND HEALTH PLAN

ASRC AEROSPACE CORPORATION

**UNIVERSITY-AFFILIATED
SPACEPORT TECHNOLOGY
DEVELOPMENT CONTRACT (USTDC)**

DRD-007

February 4, 2003

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1.0 MANAGEMENT LEADERSHIP AND EMPLOYEE PARTICIPATION

1.1 Policy

It is the policy of the ASRC USTDC Team (ASRC Team) to administer a comprehensive and ongoing safety and health program to ensure the safety, health, and protection of the public, astronauts and pilots, the NASA workforce, our employees, and to ensure the prevention of damage to high-value equipment and property. We are dedicated to the belief that all personnel shall work together to provide a safe and healthful working environment. We recognize an obligation to protect the human, physical, and financial resources of each company and manage our companies in a manner that ensures these resources are conserved and utilized effectively.

The ASRC Team complies with all applicable Federal, State and local regulations for Safety, Health, and Environmental protection to include the Safety, Health, and Environmental policies of OSHA and NASA. The ASRC Team is committed to being a full participant in the Kennedy Space Center (KSC) Safety and Health Program. Accordingly, it is our policy to:

- Furnish workplaces free from recognized hazards likely to cause death, injury, or illness.
- Comply with laws regulating environmental protection and employee safety and health.
- Recognize the priority of safety, health and environmental factors where there is competition with economic consideration.
- Provide employees, supervisors, and management with safety, health and environmental objectives, necessary training, procedures, and information to ensure they perform their jobs safely and protect the environment. Hold each accountable for the safety and health of the people, facilities, equipment, and policies and procedures within their control.
- Hold the ASRC Team Program Manager accountable for ensuring that resources, support, and safety, health and environmental assistance are delivered appropriately. Establish management performance indicators to measure progress towards meeting safety and health objectives.
- Hold each Supervisor accountable for ensuring that employees, equipment and facilities within their areas of responsibility are maintained in a safe manner. Establish management performance indicators to measure progress towards meeting safety and health objectives.
- Hold each employee accountable for maintaining safe working conditions, practices, and compliance with safety, health and environmental regulations.

Establish employee performance indicators to measure progress towards meeting their safety and health objectives.

- Perform Safety and Risk oversight functions on all task orders.
- Promote hazard identification, prevention, and control via job hazard analysis, awareness training, and an enforceable safety and health program. Ensure that all alleged hazardous conditions are investigated/analyzed and corrective actions are promptly publicized to prevent reoccurrence.
- Encourage employees to report workplace hazards and ensure that no employee is subject to restraint, interference, coercion, discrimination, or reprisal for exercising his/her rights to report unsafe or unhealthful conditions.
- Reinforce our Team commitment to safety and health, and highlight details of our Safety and Health Program by periodically preparing and distributing safety and health information to all facilities and locations.
- Strive for constant improvement toward the ultimate goal of zero reportable spills, zero loss time accidents (LTA's) and zero Occupational Safety & Health Administration (OSHA) recordable cases.
- Provide a drug and alcohol free workplace for all of our employees.

1.2 Goals

It is our goal to prevent occupational accidents and avoid the loss of life, injury to personnel, and damage to or loss of property and environment. Our safety program provides an organized and systematic approach to identifying, evaluating, and correcting safety, health and environmental hazards. We periodically review and evaluate our plans, methods, and procedures related to establishing and complying with contractual, federal, state, and local safety, health, and environment laws. We instill safety awareness in all employees through communication and training, and strive towards a healthful and safe working environment.

ASRC Aerospace anticipates being capable of participating in the OSHA Voluntary Protection Program (VPP) at Star status in less than 24 months. Participation requirements center on comprehensive management systems with active employee involvement to prevent or control the safety and health hazards of the worksite. Based upon a recent VPP Self-Assessment, ASRC Aerospace is near eligibility to start the VPP Application Process. ASRC Aerospace is currently reviewing the Voluntary Protection Programs Participants' Association (VPPPA) Mentoring Program to assist us in the VPP application process. The importance of VPP Participation is emphasized to all ASRC Team members.

1.3 Management Leadership

The ASRC Management Team is fully committed to workplace safety and health for our employees' and subcontractors, and is committed to providing strong

managerial leadership. Richard Kniseley, ASRC Program Manager, shall be held personally responsible for implementing this safety and health plan, as approved, and all applicable safety and health policy and procedures. ASRC Team managers and supervisors shall be continuously scrutinized on their leadership capabilities, participation in the ASRC safety and health program, and their ability to meet their safety objectives. Below are examples of our management activities and initiatives used towards maintaining our commitment to safety and health:

- Safety and Health Assessments on all Task Orders
- Safety Metrics
- Self-Inspection Audits
- Safety and Health Audits
- Tracking of Recordable Injuries/Illnesses
- Safety and Health Committee
- Safety Awareness Surveys
- Bonus Incentive Programs
- Performance Evaluations
- Subcontractor Safety Evaluations, Audits, and Records
- Strong Disciplinary Policy

The ASRC Team Program Manager and ASRC Team Director of Safety Health & Mission Assurance (SH&MA), in conjunction with the ASRC Team Contracting Office, shall ensure that subcontractors performing on this contract comply with this Safety and Health Plan. All contractual agreements include safety, health and environmental terms and conditions for ensuring compliance with applicable laws and regulations.

1.4 Employee Involvement

Employee participation at all levels of the safety and health program is expected, such as, inspecting their work areas, learning to recognize and report hazards, and understanding their right and responsibility to halt any activities that present potential serious safety and health hazards. Safety and Health Committees provide another venue for active involvement by ASRC Team employees at all levels. Standing members include representatives from Team management, safety, and the workforce. Safety Committee members are meant to provide continuity, lend experience, and provide a resource for the Committee as a whole. Additional members serve voluntarily, and are representative of each ASRC Team work area.

1.5 Assignment of Responsibility

The Executive Managers of the ASRC Team shall designate and ensure:

- a. **Program Manager:** The Program Manager shall be personally responsible for implementing this safety and health plan, as approved, and all applicable safety and health policy and procedures. The Program Manager shall work closely with the ASRC Team SH&MA Office in coordinating with regulatory agencies, NASA, implementation of this plan, and all safety, health, and environmental issues associated with the USTDC Contract. The Program Manager shall identify and assign employee Fire Wardens, as directed by KSC. Each Fire Warden will be responsible for coordinating fire safety related issues with NASA facility managers, emergency planning and response officials and their representatives, and the ASRC Team Safety Representative.
- b. **Director, Safety Health and Mission Assurance (SH&MA):** The Director, Safety Health and Mission Assurance shall work closely with the Program Manager in implementing this safety and health plan, as approved, and all applicable safety and health policy and procedures. The Director, in coordination with the Program Manager, shall be responsible for coordinating with regulatory agencies and NASA and shall assign a full-time Safety Representative to support the day-to-day safety activities of the ASRC Team. The Director shall participate in the weekly Program Control Board.
- c. **Safety Representative:** The Safety Representative shall be responsible for providing day-to-day safety support to the ASRC Team and adherence to KSC and NASA wide safety, health, environmental, and fire protection concerns and goals. The Safety Representative shall participate in the weekly Program Control Board.
- d. **Supervisor:** The supervisor will be held responsible for the safe work practices of the employees working under them, be it for one day or the length of the contract. They will ensure all safety practices and procedures are followed and enforced.
- c. **Employee:** The employee is responsible for performing their assigned duties in a safe manner in accordance with this safety and health plan and posted safety practices and procedures.
- d. **Human Resources Manager:** The Human Resources Manager will act as initial coordinator to facilitate communications of medical data to the Chief, Medical Services, Occupational Health Facility at the KSC Industrial area.

1.6 Provision of Authority

Changes to the ASRC Team Safety & Health Plan shall be approved by the Contracting Officer prior to implementation. We periodically review and evaluate our plans, methods, and procedures related to establishing and complying with contractual, federal, state, and local safety, health, and environment laws. The ASRC Team Safety & Health Plan is consistent with the below safety references and standards.

NPD 8621.1G	NASA Mishap Reporting and Investigating Policy
NPG 8621.1	NASA Procedures and Guidelines for Mishap Reporting, Investigating, and Record keeping
NPG 8715.3	NASA Safety Manual
29 CFR Part 1910	OSHA Standards for General Industry
KHB 1710.2	Code of Federal Regulations (CFR)
MIL-STD-1472	KSC Safety Practices Handbook
NPD 8700.1	Human Engineering Design Criteria for Military Systems, Equipment and Facilities
NPD 8710.1	NASA Policy for Safety and Mission Success
NPD 8710.2C	Emergency Preparedness Program
NPD 8710.5	NASA Safety and Health Program Policy
NPG 8715.2	NASA Safety Policy for Pressure Vessels and Pressurized Systems
FED-STD-313	Emergency Preparedness Plan Procedures & Guidelines
JHB 2000	Material Safety Data, Transportation Data and Disposal Data for Hazardous Materials Furnished to Government Activities
KHB 1200.1	Consolidated Comprehensive Emergency Management Plan
KHB 1610.1	Facilities, Systems & Equipment Management Handbook
KMI 1710.18	KSC Security Handbook
KNPD 1800.2D	KSC Safety Assurance Policy
KMI 1810.1	KSC Hazard Communication Program
KMI 1860.1	KSC Occupation Medicine Program – Attachment D
KHB 1870.1	KSC Radiation Protection Program
KHB 8800.6	KSC Sanitation Handbook
KHB 8800.7	KSC Environmental Control Handbook
KMI 8800.8	Waste Management Handbook
NPG 7120.5A	KSC Environmental Management
KHB 1860.1	NASA Program and Project Management Processes and Requirements
KHB 1860.2	KSC Ionizing Radiation Protection Program
NPD 1440-6F	KSC Nonionizing Radiation Protection Program
NASA-STD-8719.7	NASA Records Management
NASA-STD-8719.9	Facility System Safety Guidance
NASA-STD-8719.11	NASA Safety Standard for Lifting Devices and Equipment
NASA-STD-8719.16	Safety Standard for Fire Protection
NASA-STD-8719.12	Safety Standard for Hydrogen and Hydrogen Systems
NASA-STD-8719.15	NASA Safety Standard for Explosives, Propellants, and Pyrotechnics
NHS/IH 1845.2	Safety Standards for Oxygen and Oxygen Systems
NHS/IH 1845.5	Confined Space Entry
	Occupational Exposure to Hazardous Chemicals in Laboratories

- b. **Material Safety Data:** All ASRC Team employees will receive Hazard Communication training, in accordance with 29 CFR 1910.1200, during their Safety New Hire Orientation. The employees shall be trained on how to identify, handle and store hazardous materials, read container labels and Material Safety Data Sheets (MSDS), and know the location of existing MSDS's, Chemical Inventory, and Chemical Hygiene Plan. MSDS's, Chemical Inventory, and Chemical Hygiene Plan shall be maintained by the ASRC Team SH&MA office and made available to all employees.
- c. **Hazardous Materials Inventory:** The ASRC Team Safety Representative will compile an annual inventory report of all hazardous materials that the ASRC Team may have located on Government property. This inventory will comply with 29 CFR 1910.1200, Hazard Communications and FED-STD-313, Material Safety Data Transportation Data and Disposal Data for Hazardous Materials Furnished to Government Activities, and KNPD 1800.2D, KSC Hazard Communication Program. The inventory shall include the following:
- The identity of the material
 - The location of the material by building and room
 - The quantity of each material normally kept at each location

1.10 Government Access to Safety and Health Program Documentation

The ASRC Team acknowledges the Government's right of access to all safety and health documentation, including relevant personnel records, upon request.

1.11 Review and Modification of Safety Requirements

The ASRC Team acknowledges its responsibility, upon request, to participate in Government reviews and modifications of safety requirements.

1.12 Procurement

All major equipment or devices intended for procurement are reviewed by the ASRC Team Safety Representative for potential safety hazards. Further safety analysis will be conducted prior to purchase should a concern be identified.

The Program Manager, in conjunction with the Safety Representative, reviews and approves all requests for procurement of chemicals or hazardous substances. The safety representative determines the need and researches the availability of less potentially hazardous or more environmentally acceptable substitutes prior to approval.

Subcontracts for engineering or other services under the USTDC will include all appropriate flow-down provisions regarding safety & health clauses to include reporting and record retention requirements.

2.0 WORKPLACE ANALYSIS

The following hazard analysis techniques are used to identify and eliminate or reduce the risk of associated hazards to an acceptable level for the entire life cycle of USTDC task orders and processes. As such, each task order is assigned a task order leader. The task order leader, in conjunction with the ASRC Safety Representative shall review the task order for safety and risk issues. Risk Management techniques are described in detail in the Risk Management Plan located in Volume 2, Section 3 of the ASRC USTDC Team proposal. All hazards on KSC property, which are immediately dangerous to life or health, shall be reported immediately to the KSC Safety and Environmental Office.

2.1 Hazard Identification

The ASRC Team uses a combination of methods to assist in the identification of work place hazards. These ongoing methods of hazard identification are a critical component of the ASRC Team's Safety and Health program and are used throughout the life of the contract. The following methods are used as mechanisms to identify safety hazards:

2.1.1 Preliminary Hazard List (PHL)

A Preliminary Hazard List shall be created during the USTDC contract transition period by the Program Manager, SH&MA office, Task Order Leader, and Safety Representative. The Preliminary Hazard List is an initial hazard identification effort. The purpose is to identify and list hazards or areas of concern related to people, procedures, equipment or facilities, or the environment in which the facility will be located. The Preliminary Hazard List is the baseline document for the safety effort. A new Preliminary Hazard List will be created for each new task order. The following hazard identification methods are typically used to identify the energy sources, hazardous operations, procedures, and potential accidents that may result in injury to personnel or damage to equipment or facilities.

- Surveying the site
- Interviewing site personnel
- Drawing on expertise in the subject area
- Reviewing lessons learned
- Analyzing similar facilities
- Analyzing available technical data
- Reviewing energy sources
- Reviewing requirements documents

- Reviewing the Project Management Plan
- Alone, any of these methods will identify some hazards, but a logical completion of all or a combination of these steps will result in the development of a more thorough PHL. Once the PHL is completed it is used to help determine what hazards exist. The PHL also provides input for the Job Hazard Analysis (JHA).

2.1.2 Job Hazard Analysis (JHA)

The Job Hazard Analysis is a systematic method to identify, evaluate, eliminate or control, and track existing and potential hazards. A job hazard analysis shall be conducted during the USTDC contract transition period by the Program Manager and Safety Representative. In the event the scope of work changes, or new hazards are identified after the work begins, new JHA's will be developed. This analysis will include but not be limited to:

- Identification of the principal steps involved and the sequence of work activities.
- An analysis of each principal step for its potential hazards.
- Development of specific controls for each potential hazard identified.
- Determination of requirements for work training (including Hazard Communication).
- Chemicals used.
- An evaluation of what personal protective equipment is required.

JHA's shall be completed for all expected tasks. An analysis of all JHA's will be provided to all affected employees. The JHA's shall be used in conjunction with written policies and procedures to ensure the proper sequence of tasks.

2.1.3 Risk Management and Internal Surveillance Processes

The ASRC Safety Health & Mission Assurance Office conducts system safety assessments for new and modified facilities, systems, equipment, and processes. They use risk assessments, hazard analyses, and other analytical methods. The Safety Health & Mission Assurance Office facilitates the ASRC risk management and Internal Surveillance processes and plans (DRD-010 & DRD-002). The ASRC Safety Representative is part of the SH&MA Office and works closely with risk management and internal surveillance personnel to ensure a safe working environment.

2.1.4 Employee Training

Each ASRC Team employee is trained to recognize and report hazards in the workplace as part of their New Hire Safety Orientation, periodic safety

meeting, and continued safety awareness. Our New Hire Safety Orientation consists, in part, of the following training:

- Hazard Recognition
- Incident & Accident Reporting
- Hazardous Material Spill Reporting & Response Procedures
- Hazard Communication
- Personal Protection Equipment
- Workplace Safety
- Emergency Procedures
- Fire Prevention And Reporting Procedures
- Mishaps and Close Call Reports: All ASRC Team employees are trained to immediately report all mishaps and close calls to their supervisor.
- Reports of Injuries or illnesses: All ASRC Team employees are trained to immediately report all work-related injuries and illnesses, regardless of severity.

2.2 Inspections

- **Self-Inspections:** Wall-to-wall self-inspections of the workplace are conducted to evaluate our efforts of safety in the workplace and to ensure compliance with established safety and health requirements and standards. Each Supervisor shall be responsible for performing annual self-inspection and shall establish regularly scheduled inspections for fire and explosion hazards with frequency based upon hazard ranking and established KSC policy and procedures. The ASRC Team Program Manager shall ensure that an initial inspection of USTDC workspace is performed during the transition period.

Self-inspections shall be forwarded to the Safety Representative for review and the SH&MA office for comments, action items, logging, and tracking. The Program Manager will be held accountable for ensuring that corrective actions are taken immediately or within 30 days, depending on the ranking of hazard found. The information obtained from these inspections will be used to further enhance our awareness of safety, enable management and workers to address any safety related concerns, correct unsafe conditions/actions, and ensure that current safety requirements are in place.

- **Management Audits:** The ASRC Team uses internal and external management personnel to provide safety audits of our contracts, working conditions, training, and actions of its operations. These audits are conducted annually. The findings will be used to strengthen the ASRC Team Safety Program and allow senior management to participate in providing a safe and productive workplace, assigning additional resources, and reinforcing the Team's commitment to our Safety and Health Policy.

2.3 Employee Reports of Hazards

The ASRC Team encourages its employees to report workplace hazards and ensure that no employee is subject to restraint, interference, coercion, discrimination, or reprisal for exercising his/her rights to report unsafe or unhealthful conditions.

All employees are trained by the ASRC Safety Representative to immediately report hazards to their supervisor. This training is further emphasized by each supervisor at the start of employment and during periodic safety meetings. The supervisor will investigate each written close call report or oral imminent danger reports of unsafe or unhealthful conditions. Immediate action is required for imminent danger reports. The supervisor shall forward all reports to the Program Manager, SH&MA office, and Safety Representative for review, comment, action, and tracking. The Program Control Board shall review all corrective actions for additional action or recommendations.

The ASRC Team has a Safety Motivation and Awards Program designed to motivate, maintain safe behavior, and to recognize and encourage safety in all operations. The Safety and Health Committee is responsible for defining the purpose of all awards. Awards are granted on the basis of merit without regard to age, color, handicap, marital status, national origin, politics, participation or non-participation in a labor organization, race, religion, or sex. Safety promotional items are available at the supervisory level as a means of promoting safe work practices and heightening safety awareness.

3.0 MISHAP INVESTIGATION AND RECORD ANALYSIS**3.1 Mishap Investigation**

Employees shall immediately report mishaps directly to their supervisor via a NASA Mishap Report (NASA Form 1627) for mishaps that occur onsite and meet the below predefined criteria:

- **Type A Mishap:** A mishap causing death and/or damage to equipment or property equal to or greater than \$1 million. Mishaps resulting in damage to aircraft, space hardware, or ground support equipment that meet these criteria are included, as are test failures in which the damage was unexpected or unanticipated.
- **Type B Mishap:** A mishap resulting in permanent disability to one or more persons, hospitalization (within a 30-day period from the same mishap) of three or more persons, and/or damage to equipment, or property equal to or greater than \$250,000, but less than \$1 million. Mishaps resulting in damage to aircraft, space hardware, or ground support equipment that meet these criteria are included, as are test failures in which the damage was unexpected or unanticipated.
- **Type C Mishap:** A mishap resulting in damage to equipment or property equal to or greater than \$25,000, but less than \$250,000, and/or causing occupational injury or illness that results in a lost workday case. Mishaps resulting in damage to aircraft, space hardware, or ground support equipment that meet these criteria are included, as are test failures in which the damage was unexpected or unanticipated.
- **Mission Failure:** A mishap of whatever intrinsic severity that, in the judgment of the Enterprise Associate Administrator/Institutional Program Officer, in coordination with the Associate Administrator for Safety and Mission Assurance, prevents the achievement of primary NASA mission objectives as described in the Mission Operations Report or equivalent document.
- **Incident:** A mishap consisting of personal injury of less than Type C Mishap severity but more than first-aid severity, and/or property damage equal to or greater than \$1,000, but less than \$25,000.
- **Close Call:** An occurrence in which there is no injury, no equipment/property damage equal to or greater than \$1,000, and no significant interruption of productive work, but which possesses a high severity potential for any of the mishaps defined as Types A, B, or C Mishaps, Mission Failure, or incident.

The NASA Mishap Report shall be submitted to the KSC Occupational Safety Office for mishaps that occur on KSC property, and any other KSC property used in the performance of this contract. Within 24 hours of the occurrence, the unshaded portion of form 1627 shall be completed and forwarded to the KSC Occupational Safety Office, and others as directed. An investigation of the mishap will be conducted under ASRC Team supervision to determine the root cause of the mishap and for implementing corrective actions with the goal of recurrence prevention. Within 10 days of the occurrence, the form shall be completed with the

corrective action documented. The ASRC Team will provide requested support if KSC management deems it necessary to appoint a mishap investigation board.

Type A and B mishaps shall be telephonically reported to H.T. Garrido, Associate Director, Safety and Mission Assurance at 867-1982 within **one (1) hour** of the mishap. Type C mishaps, incidents, and close calls shall also be reported to the Associated Director via fax at 867-2600 within **four (4) hours** of the mishap, incident, or close call.

Incidents involving fires, hazardous chemical spills, and any other emergencies will be handled immediately according to KSC emergency procedures. All work-related incidents, accidents, and close calls will be investigated to the extent necessary to determine their causes. An investigative report will be given to the Contracting Officer showing the investigative findings and proposed or completed corrective actions.

The following fact-finding and investigative methods may be used in determining root causes:

- **Change Analysis**

A change analysis shall be used to determine causes as a result of change. The following steps are used in this method:

- a. Define the problem
- b. Establish the norm
- c. Identify, locate, and describe the change
- d. Specify what was and what was not affected
- e. List the possible causes
- f. Select the most likely causes

- **Job Hazard Analysis**

A Job Hazard Analysis shall be conducted to determine the events and conditions that led to an accident. This analysis will include but not be limited to:

- a. Identification of the principal steps involved and the sequence of work activities.
- b. An analysis of each principal step for its potential hazards.
- c. Development of specific controls for each potential hazard identified.
- d. Determination of requirements for work training (including hazardous communication).

- e. Chemicals used.
- f. An evaluation of what personal protective equipment is required.

- **OSHA Accident Investigation Method**

The following OSHA investigative process may be used, in conjunction with ASRC internal investigative procedures, to assist with determining what happened, how, and why.

- a. Define the scope of the investigation.
- b. Select an Investigator.
- c. Present a preliminary briefing to the investigating team to include; description of the mishap, normal operating procedures, maps, location of the mishap site, list of witnesses, and events that preceded the accident.
- d. Visit the accident site to obtain updated information.
- e. Inspect the accident site.
- f. Interview each victim and witness.
- g. Determine what was not normal before the accident, where the abnormality occurred, when it was first noted, and how it occurred.
- h. Analyze the data obtained in step g above.
- i. Determine why the mishap occurred, a likely sequence of events, probable causes, and alternate sequences.
- j. Check each sequence against the data in step g above.
- k. Determine the most likely sequence of events and the most probable causes.
- l. Conduct a post-investigative briefing.
- m. Prepare a summary report, including the recommended actions to prevent a recurrence. Distribute the report.

The Program Manager and SH&MA office are responsible for immediately notifying and promptly reporting to the Contracting Officer any accident, incident, or exposure resulting in fatality, lost-time occupational injury, occupational disease, contamination of property beyond any stated acceptable limits set forth in the contract schedule; or property loss of \$25,000 or more, or close call that may be of

immediate interest of NASA, arising out of work performed under this contract. The Program Manager and SH&MA will provide the Contracting Officer with quarterly reports specifying lost-time frequency rate, number of lost-time injuries, exposure, and accident/incident dollar losses as specified in the contract schedule in addition to the monthly Safety Statistics Report (SSR). The SSR's shall be submitted using KSC Form 6-22 and submitted by the 10th of each month per DRD-019.

Corrective actions shall be tracked until closed. Safety lessons learned during a mishap investigation shall be developed and disseminated to ASRC Management Team, SH&MA office, and throughout NASA Centers and Headquarters, in accordance with NPG 8621.1, NASA Procedures and Guidelines for Mishap Reporting, Investigating, and Record keeping, and NPG 7120.5A, NASA Program and Project Management Processes and Requirements, to improve the understanding of hazards, prevent the occurrence of accidents, and suggest better ways of implementing system safety programs. Lessons learned shall be communicated to supervisors to communicate the information to all employees via safety meetings, safety bulletins, etc. The ASRC Safety Representative, in coordination with the KSC Lessons Learned point of contact, is responsible for entering lessons learned into the government provided Lessons Learned Information System. In addition to lessons learned, all mishaps and close calls shall be entered into the NASA Incident Reporting Information System (IRIS) database.

3.2 Trend Analysis

The Safety Representative and Director, SH&MA will review all reports and records pertaining to mishaps, close calls, corrective actions, and lessons learned arising from occurrences in areas where ASRC Team members are located. The Safety Representative shall, in conjunction with the Director SH&MA, conduct an annual injury/illness trend analysis for indications of sources and locations of hazards, jobs that experience higher numbers of injuries, etc. By analyzing injury and illness trends and other safety data, the SH&MA office should be able to locate patterns with common causes. These identified patterns and causes patterns will be corrected in training and operational procedures.

a. Accident/Incident Summary Reports

The ASRC SH&MA office shall submit a monthly Accident/Incident Summary Report to the KSC Contracting Officer by the 10th of each month. Included in the report shall be summary information concerning new and open mishaps, vehicle accidents, incidents, injuries, fires, and close calls. A current status of each item shall be included. Report format shall be in the format requested by the KSC Contracting Officer.

b. Log of Occupational Injuries and Illnesses

The ASRC Team SH&MA office shall deliver, to the contracting officer, a copy of its annual summary of occupational injuries and illnesses (OSHA Log 300A) within 45 days after the end of the year to be reported.

4.0 HAZARD PREVENTION AND CONTROL

4.1 Appropriate Controls

All hazardous operations are evaluated, at a minimum, for the following basic requirements: hazardous operation categorization, verification of training and certification, development of procedures, and use of permits. Any new or non-routine hazardous operations are evaluated and handled appropriately when the potential for death, serious injury, or loss of critical high-dollar-value hardware has been determined.

Supervisors must ensure that facility managers and affected contractors and subcontractors are notified, and that emergency action plans are adequately rehearsed and covered during periodic safety meetings. All hazardous operations shall be coordinated with the appropriate site safety, health and environment office, ASRC Team SH&MA office, and emergency authorities at KSC. Coordination shall include communication of residual risks involved. KSC will have final approval on all hazardous operations.

4.1.1 Hazardous Operations

A worksite analysis shall be conducted by the Program Manager, SH&MA office, Task Order Leader, and Safety Representative to create a baseline list of hazardous operations using the Preliminary Hazard List. Each hazard will be defined, classified, and ranked according to KSC policy and the ASRC Risk Management Plan. A copy of this list will be provided to the contracting officer for review and approval. The Contracting Officer will have final authority in determining which operations are to be considered hazardous.

An ASRC job hazardous analysis shall be initiated to identify the job safety steps required to minimize or eliminate hazards associated with hazardous operations and written hazardous operations procedures created and submitted to the KSC Occupational Safety Office for review and approval, prior to commencing a hazardous operation. The primary method for resolving hazards shall be to eliminate them by proper system design. Hazards that cannot be eliminated by proper design shall be controlled by the following methods in the order of precedence listed below:

- Designing for minimum hazard
- Installing safety devices
- Installing caution and warning devices
- Developing administrative controls, including special procedures and training
- Providing personal protection equipment

4.1.2 Written Procedures

Written hazardous operations procedures shall be developed prior to commencing hazardous operations to include the testing, maintenance, repairs, and handling of hazardous materials and hazardous waste. These procedures shall emphasize the identification of the job safety steps required to perform the hazardous operation in a safe manner. In accordance with KHB1710.2, Hazardous Operation Procedures coded as "H" will be formatted with an appendix Z pullout sheet identifying the **emergency** steps required to **safe** the hazardous operations being performed. These procedures shall be readily available to affected employees at all times. In the event that the scope of work changes, or new hazards are identified after any work begins, a new job hazard analysis will be developed and associated written procedures shall be updated. The Program Manager shall ensure that all hazardous operations written procedures are incorporated into their self-inspection procedures for review and safety assessments.

4.1.3 Protective Equipment

Personal Protective Equipment (PPE) is used only when engineering and administrative controls in themselves are insufficient in protecting the employee from operational or chemical hazards. ASRC Team employees are trained and required to wear protective equipment necessary for operation or work environment.

PPE assessments shall be certified as meeting appropriate OSHA requirements. Precautionary steps to safeguard the employees are included in the written hazardous operations procedures. Each employee shall be trained on the proper selection, inspection, and maintenance of the protective equipment selected for his or her area. Training shall be accomplished with an objective of ensuring that the transfer of learning took place. Any documentation concerning the above is kept with the supervisor and SH&MA Office. Management and employees shall ensure compliance with 29 CFR 1910.132-137 and NPG 4200.1, NASA Equipment Management Manual.

4.1.4 Hazardous Operations and Permits

Hazardous operations may be designated as such by government agency directive, contract, or policy. These operations may depend on worker skill or knowledge to prevent injury or damage. They may involve exposure to some materials, operations, or an environment that is inherently dangerous and that requires the use of protective clothing, procedures, or equipment to prevent injury.

The safety representative and SH&MA office shall review the procedures for conducting any hazardous operation. As a result of this review, the safety representative and SH&MA office shall approve the level of safety monitoring, the pre-operations briefing requirements, and the nature and amount of personal protective equipment. Hazardous operations permit requests will be processed through the safety representative.

The below hazardous operations shall be performed in accordance with KHB 1710.2, Kennedy Space Center Safety Practices Handbook, KHB 8800.6,

KSC Environmental Control Handbook, KHB 1840.1, KSC Industrial Hygiene Handbook, 29 CFR Part 1910, OSHA Standards for General Industries, and applicable standards and regulations:

a. Operations Involving Potential Asbestos Exposures

The ASRC Team complies with the NASA Asbestos Policies and Procedures and shall ensure that maintenance work, that may disturb building materials, not be performed until the KSC Environmental Health and Safety Office has been consulted.

b. Operations Involving Exposures to Toxic or Unhealthful Materials

Any area determined to have chemicals or physical agents that are potentially toxic or hazardous to health will have a job hazardous analysis performed to determine the risks related to the materials. The safety representative will notify the KSC Environmental Health and Safety Office prior to initiation of any new or modified operation potentially hazardous to health. The ASRC Team complies with 29 CFR 1910.1200, Hazard Communication.

c. Operations Involving Hazardous Waste

Hazardous waste will be controlled at the point of generation. Employees shall be trained to set up areas separate from other chemical storage, set up a segregation plan for the wastes to prevent unintentionally mixing wastes, and complete the proper paperwork necessary for waste removal. All waste generated by the ASRC Team at a NASA facility, for the life of the contract, is the property of NASA. The KSC Environmental Health and Safety office shall be notified prior to the ASRC Team handling hazardous waste operations and shall be notified prior to initiation of any new or modified hazardous waste operations on site. The ASRC Team complies with 29 CFR 1910.120, Hazardous Waste Operations and Emergency Response and KHB 8800.7, Waste Management Handbook.

d. Operations Involving New or Modified Emissions/Discharges to the Environment

The Safety Representative shall notify the KSC Environmental Health and Safety Office whenever a new or modified process is in its planning stages, so that an environmental review can be performed to determine any environmental regulatory compliance issues or environmental emissions/discharges of the process. For new or change processes, sufficient lead time shall be given for the processing of permits through the applicable state and federal natural resources conservation commissions as applicable. ASRC complies with KMI 8800.8 "KSC Environmental Management" and KHB 8800.6 "KSC Environmental Control Handbook".

e. Radiation Program

The ASRC Team complies with KSC radiation protection regulations (KHB 1860.1 & KHB 1860.2), NPD 1800.2, NASA Occupational Health Program, 29 CFR 1910.97, Occupational Health and Environmental Control, nonionizing radiation, and applicable Federal and State regulations for applicable laboratories which procure, use, and handle radioactive materials and/or ionizing radiation producing machines/devices and relating to the procurement, possession, and use of nonionizing radiation producing devices.

f. Pressure Vessel/System Certification

The ASRC Safety Representative will ensure that a Pressure Vessel/System Certification Program, for all applicable USTDC pressure systems, will be maintained in accordance with NPD 8710.5, NASA Safety Policy for Pressure Vessels and Pressurized Systems and KHB 1710.2, KSC Safety Practices Handbook.

g. Operations Involving Hydrogen

Hydrogen gas is colorless and odorless and not detectable by human senses. The major hazards associated with hydrogen are fires and explosions. Liquid Hydrogen boils at -423 F. In the event of contact with this liquid or cold boil off vapor, frostbite and burns will occur. Liquid, slush, and gaseous hydrogen shall be stored, handled, and used so that life and health are not jeopardized and so that the risk of property damage is minimized. Hydrogen systems and operations shall be designed to be inherently devoid of hazards by observing the cardinal axioms of hydrogen safety: adequate ventilation, leak prevention, and appropriate elimination of ignition sources. Hydrogen shall be handled by adhering to the following guidelines:

- Prevent hydrogen leaks by the use of appropriate designs, materials, and procedures.
- Keep a constant watch to detect immediately any accidental hydrogen leaks.
- Take proper action if a hydrogen leak occurs.
- With plentiful ventilation, prevent accumulations of combustible/detonable hydrogen mixtures.
- Eliminate likely ignition sources, but suspect the presence of unknown ignition sources.
- Handle a hydrogen fire by letting it burn under control until the hydrogen flow can be stopped.

- Operate with knowledgeable, trained personnel and use formal procedures.
- Subject all hydrogen use activities to an independent third-party review.

The ASRC Team understands and shall ensure compliance, at a minimum, with: NASA-STD-8719.16 "Safety Standards for Hydrogen and Hydrogen Systems", NASA-STD-8719.12 "NASA Safety Standard for Explosives, Propellants, and Pyrotechnics, and 29 CFR 1910.103 "Hazardous Materials, Hydrogen".

h. Operations Involving Oxygen

Oxygen is an element, which, at atmospheric temperatures and pressures, exists as a colorless, odorless, and tasteless gas. High purity liquid oxygen is a light blue, transparent liquid. Liquid Oxygen boils at -297 F and cannot be kept liquid if its temperature rises above the critical temperature of -181.4 F. It is an extremely cold cryogenic fluid, which makes handling it potentially hazardous. The major hazards associated with operational use of liquid and gaseous oxygen are fire and explosion. For example, inadvertent mixing of oxygen and a flammable gas can cause an explosion, and allowing argon or nitrogen to mix with and enter oxygen breathing systems can cause death. Frostbite is another health hazard associated with liquid oxygen.

Personnel who handle/use liquid and gaseous oxygen or who design equipment for oxygen systems shall become familiar with its physical, chemical, and hazardous properties, to include:

- Personnel must know which materials are most compatible with oxygen, what the cleanliness requirements of oxygen systems are, how to recognize system limitations, and how to respond to failures. Designated operators shall be familiar with procedures for handling spills and with the actions to be taken in case of fire.
- Training shall include detailed safety programs for recognizing human capabilities and limitations. Instructions on the use/care of protective equipment and clothing shall be provided as well as detailed training on all potentially hazardous activities involving liquid oxygen.
- Personnel shall constantly reexamine procedures and equipment to be sure safety has not been compromised by changes in test methods, over familiarity with the work, equipment deterioration, or stresses due to abnormal conditions.

The ASRC Team understands and shall ensure compliance, at a minimum, with: NASA-STD-8719.15 "Safety Standards for Oxygen and Oxygen Systems", NASA-STD-8719.12 "NASA Safety Standard for Explosives, Propellants, and Pyrotechnics, and 29 CFR 1910.104 "Hazardous Materials, Oxygen".

i. Operations Involving Laboratories

All personnel shall be adequately trained to assure proper and safe performance and operation of assigned equipment and laboratory functions prior to any work being performed in a laboratory. Training will be provided by an appointed Chemical Hygiene Officer. The Chemical Hygiene Officer shall develop a Chemical Hygiene Plan. All laboratories shall comply, at a minimum, with OSHA Standard 29 CFR 1910.1450, Occupational Exposure to Hazardous Chemicals in Laboratories, 29 CFR 1910.102, Hazardous Materials, NFPA 45, Fire Protection for Laboratories Using Chemicals, NFPA 101, Life Safety Code, NHS/IH-1845.3, Hazard Communication, NHS/IH-1845.5, Occupational Exposure to Hazardous Chemicals in Laboratories, NPD 1800.2, NASA Occupational Health Program, and applicable KSC policy and procedures. The following components, at a minimum, shall be incorporated into the Chemical Hygiene Plan:

- General Rules for all Laboratory Work
- Chemical Procurement, Distribution, and Storage
- Environmental Monitoring
- Housekeeping, Maintenance and Inspections
- Medical Program
- Personal Protective Apparel and Equipment
- Records Maintenance, Signs and Labels
- Spills and Accidents
- Training and Information
- Waste Disposal Procedures

j. Other Hazard Operations

Hazards identified below may include but are not limited to:

- Confined Space Entry at a minimum shall be performed in accordance with NHS/IS-1845.2, Entry Into and Work in

Confined Space, ANSI Z117.1, Safety Requirements for Confined Space, NIOSH Pub. 87-113, A Guide to Safety in Confined Spaces, and 29 CFR 1910.146, Permit-required Confined Space.

- Handling of Hazardous Materials and Chemicals, at a minimum, shall be performed in accordance with KNPD 1800.2, KSC Hazard Communication Program.
- Control of Hazardous Energy, at a minimum, shall be performed in accordance with 29 CFR 1910.147, Lockout/Tagout and KHB 1710.2, KSC Safety Practices Handbook.

4.2 Facilities Baseline Documentation

The Program Manager and SH&MA office are responsible for maintaining facilities baseline documentation in accordance with KSC requirements. The Program Manager will implement any facilities baseline documentation tasks (including safety engineering) as provided in this Safety and Health plan, approved by NASA, or as required by contractual or technical direction.

4.3 Preventative Maintenance

Preventative Maintenance is a critical aspect to our safety program. Preventative Maintenance will not only reduce the possibility of injury but can also reduce long-term operating costs. The Program Manager shall be responsible for ensuring written preventative maintenance procedures are created. As part of the maintenance program, the Program Manager shall:

- Include Personal Protection Equipment as part of the preventative maintenance program.
- Establish an equipment maintenance program so that engineering controls function properly and hazardous breakdowns can be prevented.
- Survey and list all processes, machines and portable power tools available.
- Audit all maintenance records for existing machines. Determine if manufacturers manuals exist, if they are adequate and whether they are being followed.
- Develop a tracking procedure that lists the status of each tool, machine, or process, its location and relevant inspection data.
- Clearly define inspection criteria, appropriate schedules for maintenance and inspections.
- Clearly define organizational responsibility for inspections.

- Ensure maintenance personnel are trained.
- Maintain good housekeeping.

4.4 Medical Program

Employees assigned to potential hazardous duties shall undergo applicable baseline medical testing prior to being assigned hazardous duty. Follow up examinations shall be conducted in accordance with medical protocol. Employees shall be made aware of all short and long term exposures and shall report early signs/symptoms of job-related injury or illnesses. Appropriate medical treatment shall be provided. The ASRC Team Safety Representative and SH&MA office, shall track, monitor, and follow up on all exposures.

Cardiopulmonary Resuscitation (CPR), first aid, and emergency response training shall be given to those employees working in hazardous conditions and at the direction of KSC.

5.0 EMERGENCY RESPONSE

The Safety Representative shall ensure that emergency preparedness plans are in place at each employee work location. These plans shall be developed, updated, and implemented in compliance with JHB 2000, Consolidated Comprehensive Emergency Management Plan and JDP-KSC-P-3014, Generic Emergency Procedures Document. These plans shall address fire, explosion, inclement weather, environmental releases, emergency telephone numbers, hazard communication information, etc. The supervisor must ensure that his/her employee reads, understands, and agrees to abide by KSC emergency preparedness plans. Failure to abide by KSC emergency procedures shall be grounds for termination of employment.

Employees shall immediately call the below applicable telephone numbers for assistance with personnel injury or illness for any incident requiring emergency medical treatment for ASRC Team members, subcontractors, visitors, or if any person on the job site is rendered unconscious. A "refusal of treatment" form shall be signed by any individual refusing offered medical evaluation/treatment. The below telephone numbers shall be posted next to each telephone:

- From KSC or CCAFS property: **911**
- From a KSC issued cellular telephone: **867-7911**
- From other than a KSC issued cellular telephone: **321-867-7911**
- Commercial telephone users on KSC or CCAFS property: **911**

Employees involved in Hazardous Waste Operations (HAZWOPER) shall be trained and certified in accordance with 29 CFR 1910.120 prior to the start of work. The ASRC Team is committed to participating in the Incident Command System.

The following additional telephone numbers shall be used to report problems and/or request information regarding safety related subjects:

- Environmental Health Officer 867-3152
- Industrial Hygiene Officer 867-6342
- Medical Services 867-3346
- Security 867-2455

The ASRC Team has administrative requirements and procedures for control of emergencies and participates in regularly scheduled drills for building emergencies. Employees working at a KSC facility shall follow KSC on site emergency procedures and participate in all drills. Employees will be evaluated in their safety knowledge and participation in safety programs.

6.0 SAFETY AND HEALTH TRAINING

The Supervisor shall ensure that each employee receives and understands the appropriate safety and health training prior to the start of work. At a minimum, the Safety Representative will train and ensure that the following topics are covered during each employee Safety New Hire Orientation.

- Personal Protection Equipment
- Workplace Safety
- Emergency Procedures
- Fire Prevention And Reporting Procedures
- Hazard Recognition
- Incident & Accident Reporting
- Hazardous Material Spill Reporting & Response Procedures
- Hazard Communication
- Mishaps and Close Call Reports
- Reports of Injuries or illnesses

In accordance with KHB 1840.1, KSC Industrial Hygiene Handbook, appropriate training shall be provided to personnel who may be exposed to hazardous materials or physical agents, to the supervisors of such personnel, and to personnel who implement the provisions of the KSC Industrial Hygiene program. The ASRC Safety Representative shall ensure that all employees are trained in accordance with KSC policies and procedures. Supervisors shall assign work only after the employee is trained and certified. Training may consist of formal classroom training, on the job training, physical exam, respirator use and fit check, and the use of personal protective equipment. When an employee has satisfied all of the criteria required for a particular certification, the employee is certified and credited. When a person's training or certification is about to expire, the supervisor contacts the ASRC Team Safety Representative to reschedule training or physical exams for that employee. Certifications submitted by the supervisors must receive approval from the NASA Safety Office. Certifications will be maintained with the ASRC Safety Representative and KSC Safety Office, as applicable. Upon request, all training materials and records will be made available to KSC for review.

REGISTER OF WAGE DETERMINATIONS UNDER
THE SERVICE CONTRACT ACT
WASHINGTON, D.C. 20210

U.S. DEPARTMENT OF LABOR
EMPLOYMENT STANDARDS ADMINISTRATION

Wage Determination No.: 1994-2118

William W. Gross
Director

Division of
Wage Determinations

Revision No.: 17
Date of Last Revision: 05/16/2002

State: Florida

Area: Florida Counties of Brevard, Indian River

" Fringe Benefits Required Follow the Occupational Listing **

OCCUPATION TITLE

MINIMUM WAGE RATE

Administrative Support and Clerical Occupations

Accounting Clerk I	10.76
Accounting Clerk II	12.36
Accounting Clerk III	14.60
Accounting Clerk IV	18.43
Court Reporter	12.94
Dispatcher, Motor Vehicle	12.43
Document Preparation Clerk	9.81
Duplicating Machine Operator	9.81
Film/Tape Librarian	11.91
General Clerk I	9.08
General Clerk II	10.22
General Clerk III	10.98
General Clerk IV	12.33
Housing Referral Assistant	14.77
Key Entry Operator I	9.36
Key Entry Operator II	11.08
Messenger (Courier)	8.98
Order Clerk I	9.03
Order Clerk II	12.36
Personnel Assistant (Employment) I	10.43
Personnel Assistant (Employment) II	11.74
Personnel Assistant (Employment) III	12.36
Personnel Assistant (Employment) IV	15.16
Production Control Clerk	15.83
Rental Clerk	10.99
Scheduler, Maintenance	12.43
Secretary I	12.43
Secretary II	13.67
Secretary III	14.77
Secretary IV	16.80
Secretary V	18.50
Service Order Dispatcher	11.30
Stenographer I	10.97

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Stenographer II	11.76
Supply Technician	16.80
Survey Worker (Interviewer)	12.94
Switchboard Operator-Receptionist	9.05
Test Examiner	13.67
Test Proctor	13.67
Travel Clerk I	9.55
Travel Clerk II	10.34
Travel Clerk III	10.66
Word Processor I	10.20
Word Processor 11	10.87
Word Processor 111	12.79

Automatic Data Processing Occupations

Computer Rata Librarian	11.16
Computer Operator I	13.03
Computer Operator II	14.18
Computer Operator III	15.89
Computer Operator IV	17.45
Computer Operator V	19.46
Computer Programmer I (1)	17.77
Computer Programmer II (1)	21.35
Computer Programmer III (1)	25.73
Computer Programmer IV (1)	28.45
Computer Systems Analyst I (1)	21.79
Computer Systems Analyst II (1)	25.63
Computer Systems Analyst III (1)	27.62
Peripheral Equipment Operator	11.29

Automotive Service Occupations

Automotive Body Repairer, Fiberglass	16.49
Automotive Glass Installer	15.00
Automotive Worker	15.00
Electrician, Automotive	15.86
Mobile Equipment Servicer	13.54
Motor Equipment Metal Mechanic	16.49
Motor Equipment Metal Worker	15.00
Motor Vehicle Mechanic	16.49
Motor Vehicle Mechanic Helper	12.74
Motor Vehicle Upholstery Worker	14.48
Motor Vehicle Wrecker	15.00
Painter, Automotive	15.76
Radiator Repair Specialist	15.00
Tire Repairer	13.08
Transmission Repair Specialist	16.49

Food Preparation and Service Occupation

Baker	11.11
Cook I	10.11

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Cook II	11.11
Dishwasher	7.82
Food Service Worker	7.82
Meat Cutter	11.38
Waiter/Waitress	8.47
Furniture Maintenance and Repair Occupations	
Electrostatic Spray Painter	15.76
Furniture Handler	12.39
Furniture Refinisher	15.76
Furniture Refinisher Helper	12.74
Furniture Repairer, Minor	14.28
Upholsterer	15.76
General Services and Support Occupations	
Cleaner, Vehicles	7.82
Elevator Operator	8.99
Gardener	10.11
House Keeping Aid I	7.82
House Keeping Aid II	9.74
Janitor	8.99
Laborer, Grounds Maintenance	8.47
Maid or Houseman	7.02
Pest Controller	12.25
Refuse Collector	8.99
Tractor Operator	9.87
Window Cleaner	9.74
Health Occupations	
Dental Assistant	11.77
Emergency Medical Technician (EMT)/Paramedic/Ambulance Driver	12.02
Licensed Practical Nurse I	10.51
Licensed Practical Nurse II	11.80
Licensed Practical Nurse III	13.21
Medical Assistant	10.73
Medical Laboratory Technician	11.80
Medical Record Clerk	12.34
Medical Record Technician	12.93
Nursing Assistant I	8.45
Nursing Assistant II	9.50
Nursing Assistant III	10.36
Nursing Assistant IV	11.64
Pharmacy Technician	11.63
Phlebotomist	11.80
Registered Nurse I	15.99
Registered Nurse II	19.56
Registered Nurse II, Specialist	19.56
Registered Nurse 111	23.68
Registered Nurse III, Anesthetist	23.68

Registered Nurse IV

28.37

Information and Arts Occupations

Audiovisual Librarian	19.30
Exhibits Specialist I	16.21
Exhibits Specialist II	19.30
Exhibits Specialist III	21.10
Illustrator I	16.22
Illustrator II	19.30
Illustrator III	21.10
Librarian	20.37
Library Technician	12.44
Photographer I	12.81
Photographer II	15.50
Photographer III	18.45
Photographer IV	20.18
Photographer V	22.30

Laundry, Dry Cleaning, Pressing and Related Occupations

Assembler	7.18
Counter Attendant	7.18
Dry Cleaner	8.36
Finisher, Flatwork, Machine	7.18
Presser, Hand	7.18
Presser, Machine, Drycleaning	7.18
Presser, Machine, Shirts	7.18
Presser, Machine, Wearing Apparel, Laundry	7.18
Sewing Machine Operator	8.89
Tailor	9.42
Washer, Machine	7.29

Machine Tool Operation and Repair Occupations

Machine-Tool Operator (Toolroom)	15.76
Tool and Die Maker	18.73

Material Handling and Packing Occupations

Forklift Operator	11.20
Fuel Distribution System Operator	14.48
Material Coordinator	16.43
Material Expediter	16.43
Material Handling Laborer	7.60
Order Filler	11.67
Production Line Worker (Food Processing)	12.68
Shipping Packer	10.57
Shipping/Receiving Clerk	11.03
Stock Clerk (Shelf Stocker; Store Worker 11)	12.62
Store Worker I	9.52
Tools and Parts Attendant	14.66
Warehouse Specialist	14.58

Mechanics and Maintenance and Repair Occupations

Aircraft Mechanic	18.14
Aircraft Mechanic Helper	12.74
Aircraft Quality Control Inspector	17.76
Aircraft Servicer	14.28
Aircraft Worker	15.00
Appliance Mechanic	15.76
Bicycle Repairer	13.08
Cable Splicer	16.49
Carpenter, Maintenance	15.76
Carpet Layer	15.19
Electrician, Maintenance	16.49
Electronics Technician, Maintenance 1	19.66
Electronics Technician, Maintenance II	24.69
Electronics Technician, Maintenance III	27.74
Fabric Worker	14.28
Fire Alarm System Mechanic	16.49
Fire Extinguisher Repairer	13.54
Fuel Distribution System Mechanic	16.49
General Maintenance Worker	16.50
Heating, Refrigeration and Air Conditioning Mechanic	16.49
Heavy Equipment Mechanic	16.49
Heavy Equipment Operator	16.49
Instrument Mechanic	16.49
Laborer	11.04
Locksmith	15.76
Machinery Maintenance Mechanic :	16.49
Machinist, Maintenance	17.68
Maintenance Trades Helper	12.74
Millwright	17.28
Office Appliance Repairer	15.76
Painter, Aircraft	15.97
Painter, Maintenance,	15.76
Pipefitter, Maintenance	16.49
Plumber, Maintenance	15.76
Pneudraulic Systems Mechanic	16.49
Rigger	16.49
Scale Mechanic	15.00
Sheet-Metal Worker, Maintenance	16.49
Small Engine Mechanic	15.00
Telecommunication Mechanic I	18.14
Telecommunication Mechanic II	18.96
Telephone Lineman	16.49
Welder, Combination, Maintenance	16.49
Well Driller	16.49
Woodcraft Worker	16.49
Woodworker	13.54

Miscellaneous Occupations

Animal Caretaker	9.00
Carnival Equipment Operator	11.35
Carnival Equipment Repairer	11.62
Carnival Worker	7.82
Cashier	7.16
Desk Clerk	7.52
Embalmer	17.93
Lifeguard	8.61
Mortician	18.67
Park Attendant (Aide)	11.86
Photofinishing Worker (Photo Lab Tech., Darkroom Tech)	8.68
Recreation Specialist	14.12
Recycling Worker	12.03
Sales Clerk	9.16
School Crossing Guard (Crosswalk Attendant)	8.68
Sport Official	8.24
Survey Party Chief (Chief of Party)	13.10
Surveying Aide	8.68
Surveying Technician Instr. Person/Surveyor Asst./Instr.)	11.91
Swimming Pool Operator	12.12
Vending Machine Attendant	12.03
Machine Repairer	14.05
Vending Machine Repairer Helper	12.03

Personal Needs Occupations

Child Care Attendant	7.32
Child Care Center Clerk	10.48
Chore Aid	7.91
Homemaker	12.83

Plant and System Operation Occupations

Boiler Tender	16.49
Sewage Plant Operator	15.76
Stationary Engineer	16.49
Ventilation Equipment Tender	12.74
Water Treatment Plant Operator	16.43

Protective Service Occupations

Alarm Monitor	13.13
Corrections Officer	13.42
Court Security Officer	13.56
Detention Officer	13.42
Firefighter	13.83
Guard I	7.33
Guard II	12.94
Police Officer	16.08

Stevedoring/Longshoremen Occupations

Blocker and Bracer	16.68
Hatch Tender	14.97
Line Handle	14.97
Stevedore I	16.17
Stevedore II	17.91

Technical Occupations

Air Traffic Control Specialist, Center (2)	28.21
Air Traffic Control Specialist, Station (2)	19.46
Air Traffic Control Specialist, Terminal (2)	21.43
Archeological Technician I	12.68
Archeological Technician II	14.41
Archeological Technician III	17.61
Cartographic Technician	18.87
Civil Engineering Technician	15.58
Computer Based Training (CBT) Specialist/ Instructor	23.46
Drafter I	9.26
Drafter II	11.91
Drafter III	14.41
Drafter IV	17.15
Engineering Technician I	9.33
Engineering Technician II	11.99
Engineering Technician III	14.51
Engineering Technician IV	17.27
Engineering Technician V	18.89
Engineering Technician VI	20.88
Environmental Technician	17.45
Flight Simulator/Instructor (Pilot)	25.63
Graphic Artist	20.23
Instructor	21.12
Laboratory Technician	17.48
Mathematical Technician	16.84
Paralegal/Legal Assistant I	12.28
Paralegal/Legal Assistant II	16.61
Paralegal/Legal Assistant III	20.31
Paralegal/Legal Assistant IV	24.59
Photooptics Technician	16.84
Technical Writer	21.58
Unexploded (UXO) Safety Escort	17.93
Unexploded (UXO) Sweep Personnel	17.93
Unexploded Ordnance (UXO) Technician I	17.93
Unexploded Ordnance (UXO) Technician II	21.70
Unexploded Ordnance (UXO) Technician III	26.01
Weather Observer, Combined Upper Air and Surface Programs (3)	16.45
Weather Observer, Senior (3)	18.27
Weather Observer, Upper Air (3)	

Transportation, Mobile Equipment Operation Occupations

Bus Driver	15.08
Parking and Lot Attendant	9.94
Shuttle Bus Driver	13.42
Taxi Driver	10.94
Truckdriver, Heavy Truck	14.89
Truckdriver, Light Truck	13.42
Truckdriver, Medium Truck	14.16
Truckdriver, Tractor-Trailer	14.89

ALL OCCUPATIONS LISTED ABOVE RECEIVE THE FOLLOWING BENEFITS:

HEALTH & WELFARE: Life, accident, and health insurance plans, sick leave, pension plans, civic and personal leave-severance pay, and savings and thrift plans. Minimum employer contributions costing an average of \$2.56 per hour computed on the basis of all hours worked by service employees employed on the contract.

VACATION: 2 weeks paid vacation after 1 year of service with a contractor or successor: 3 weeks after 5 years, 4 weeks after 15 years, and 5 weeks after 20 years. Length of service includes the whole span of continuous service with the present contractor or successor, wherever employed, and with the predecessor contractors in the performance of similar work at the same Federal facility. (Reg. 29 CFR 4.173)

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

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

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

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

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

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

A 4 percent differential is applicable to employees employed in a position that represents a low degree of hazard when working with, or in close proximity to ordnance, (or employees possibly adjacent to) explosives and incendiary materials which involves potential injury such as laceration of hands, face, or arms of the employee engaged in the operation, irritation of the skin, minor burns and the like; minimal damage to immediate or adjacent work area or equipment being used. All operations involving, unloading, storage, and

hauling of ordnance, explosive, and incendiary ordnance material other than small arms ammunition. These differentials are only applicable to work that has been specifically designated by the agency for ordnance, explosives, and incendiary material differential pay

**** UNIFORM ALLOWANCE ****

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

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

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

Source of Occupational Title and Descriptions:

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

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

Conformance Process

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

The process for preparing a conformance request is as follows

- 1) When preparing the bid, the contractor identifies the need for a conformed occupation(s) and computes a proposed rate(s).
- 2) After contract award, the contractor prepares a written report listing in order proposed classification titles) a Federal grade equivalency (FGE) for each proposed classification(s), job description(s), and rationale for proposed wage rate(s), including information regarding the agreement or disagreement of the authorized representative of the employees involved, or where there is no authorized representative, the employees themselves. This report should be submitted to the contracting officer no later than 30 days after such unlisted classes) of employees performs any contract work.
- 3) The contracting officer reviews the proposed action and promptly submits a report of the action, together with the agency's recommendations and pertinent information including the position of the contractor and the employees, to the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor NAS10-98001, Modification No. 61, Page 127a

Labor, for review. (See section 4.6(b)(2) of Regulations 29 CFR Part 4)

4) Within 30 days of receipt, the Wage and Hour Division approves, modifies, or disapproves the action via transmittal to the agency contracting officer, or notifies the contracting officer that additional time will be required to process the request.

5) The contracting officer transmits the Wage and Hour decision to the contractor.

6) The contractor informs the affected employees.

Information required by the Regulations must be submitted on SF 1444 or bond paper.

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