

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

I. CONTRACT ID CODE PAGE OF PAGES
1 6

2. AMENDMENT/MODIFICATION NO. P00081	3. EFFECTIVE DATE 01-Oct-2001	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)
6. ISSUED BY 45 CONS/LGCZL 1201 EDWARD H. WHITE II ST. PATRICK AFB FL 32925-3237	CODE FA2521	7. ADMINISTERED BY (If other than item 6) See Item 6	

8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code) SVERDRUP TECHNOLOGY, INC. DAVE PICKERING 600 WILLIAM NORTHERN BLVD. TULLAHOMA TN 37388	9A. AMENDMENT OF SOLICITATION NO.
	9B. DATED (SEE ITEM 11)
	X 10A. MOD. OF CONTRACT/ORDER NO. F08650-98-C-0035
	X 10B. DATED (SEE ITEM 13) 20-Mar-2001

CODE 07486 FACILITY CODE

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer is extended, is not extended.

Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods:
 (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted;
 or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

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

A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).
X C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: FAR 52.243-2, entitled "Changes-Cost Reimbursement (Aug 87)(Alt II)(Apr 84)
D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor is not, is required to sign this document and return 1 copies to the issuing office.

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

POC: Pam Napoletano
321-494-5560
email: pamela.napoletano.af.patrick.mil

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

15A. NAME AND TITLE OF SIGNER (Type or print) <i>Judith A. Oleen, Contract Manager</i>	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) <i>Judith M Adams</i>
15B. CONTRACTOR/OFFEROR <i>Judith A. Oleen</i> (Signature of person authorized to sign)	15C. DATE SIGNED 8/22/02
16B. UNITED STATES OF AMERICA BY <i>Judith M Adams</i> (Signature of Contracting Officer)	16C. DATE SIGNED 8/22/02

Standard Form 30 (Block 14 continued)**A. The purpose of this supplemental agreement is to:**

1. Descope FY 02 effort for Titan locomotive maintenance, facility management of E&L Facility, O&M of Complex 36 blockhouse blast door, O&M of LSF security system, Facility Management at CX-41 (29145/29147/29148), O&M of On-Line Lightning Monitoring System, and O&M of a portion of Titan rail system.
2. Incorporate FY 02 effort for O&M of Ordnance Facilities.
3. Make appropriate SOW changes to support descope and inclusion of O&M of Ordnance Facilities.
4. Realign \$623,177 from CLIN 0025 to support the equitable adjustment difference between the increase for Ordnance Maintenance and the decrease for descoped items.
5. This modification is under the authority of FAR 52.243-2, entitled "Changes-Cost Reimbursement (Aug 87)(Alt II)(Apr 84). Performance period is 01 Oct 01 thru 30 Sep 02.
6. Funding is provided under existing funds in CLIN 0025 with no change in contract value.

B. PART I – THE SCHEDULE**1. SECTION B – SUPPLIES OR SERVICES AND PRICES/COSTS****SUMMARY OF CHANGES -- "SUMMARY OF CHANGES FOR THE PAYMENT OFFICE"**

Page Ref	CLIN	Changed From	Changed To	Net Change
11 of 65	0021	\$ 32,651,868	\$ 33,219,252	\$ 567,384
11 of 65	0024AA	\$ 1,414,980	\$ 1,437,676	\$ 22,696
11 of 65	0024AB	\$ 1,789,714	\$ 1,818,083	\$ 28,369
11 of 65	0024AC	\$ 294,783	\$ 299,511	\$ 4,728
11 of 65	Total Award Fee	\$ 3,499,477	\$ 3,555,270	\$ 55,793
12 of 65	0025	\$ 7,938,128	\$ 7,314,951	(\$ 623,177)
12 a of 65	Total CLIN 0021-0023	\$ 35,584,329	\$ 36,151,713	\$ 567,384
12a of 65	Total Award Fee CLIN 0024	\$ 3,499,477	\$ 3,555,270	\$ 55,793
12a of 65	Total CLIN 0025	\$ 7,938,128	\$ 7,314,951	(\$ 623,177)

Total Net Change to Section B: \$ -0-

2. SECTION J – STATEMENT OF WORK:

Statement of Work pages revised to indicate changes:

- (1) SOW, page 45
- (2) Appendix A, page A-2
- (3) Appendix A, page A-4
- (4) Appendix A, page A-6
- (5) Appendix A, page A-22
- (6) Appendix A, page A-24
- (7) Appendix A, page A-29
- (8) Appendix A, page A-34

SECTION B - SUPPLIES OR SERVICES AND PRICES/COST (con't)
Launch Operations and Support Contract
Option Period 4 - FY 02 (1 Oct 01 - 30 Sep 02)

Item No.	Description	Est. Cost								
0021	<p>Operations and Maintenance, Operations and Support and Operations and Management</p> <p>The contractor shall furnish all necessary supplies and services required to perform program and business management, cost reporting and segregation, environmental, industrial security, technical data, safety, exercises, training and other related items as required by launch program in accordance with the Statement of Work for the LO&SC, dated April 1998, and the performance standards document.</p> <p><u>COST-PLUS-AWARD-FEE</u></p> <table border="0"> <tr> <td></td> <td align="center"><u>From</u></td> <td align="center"><u>Change</u></td> <td align="center"><u>To</u></td> </tr> <tr> <td>Est. Cost</td> <td align="right">\$ 32,651,868</td> <td align="right">\$ 567,384</td> <td align="right">\$ 33,219,252</td> </tr> </table>		<u>From</u>	<u>Change</u>	<u>To</u>	Est. Cost	\$ 32,651,868	\$ 567,384	\$ 33,219,252	\$ 33,219,252
	<u>From</u>	<u>Change</u>	<u>To</u>							
Est. Cost	\$ 32,651,868	\$ 567,384	\$ 33,219,252							
0022	<p>Systems Management</p> <p>The contractor shall furnish all necessary supplies and services required to perform systems engineering, safety engineering, logistics support analysis, configuration management, procedure development, and studies in accordance with the Statement of Work for the LO&SC, dated April 1998, and the performance standards document.</p> <p><u>COST-PLUS-AWARD-FEE</u></p> <table border="0"> <tr> <td></td> <td align="center"><u>From</u></td> <td align="center"><u>Change</u></td> <td align="center"><u>To</u></td> </tr> <tr> <td>Est. Cost</td> <td align="right">\$ 2,932,461</td> <td align="right">\$ -</td> <td align="right">\$ 2,932,461</td> </tr> </table>		<u>From</u>	<u>Change</u>	<u>To</u>	Est. Cost	\$ 2,932,461	\$ -	\$ 2,932,461	\$ 2,932,461
	<u>From</u>	<u>Change</u>	<u>To</u>							
Est. Cost	\$ 2,932,461	\$ -	\$ 2,932,461							
0023	<p>Data</p> <p>The contractor shall furnish all necessary supplies and services required to deliver data as set forth in the Accessible Data Products Lists, and Appendix K of the Statement of Work.</p> <p><u>COST-PLUS-AWARD-FEE</u></p>	NSP								
0024	<p>Award Fee Pool</p> <p>(In accordance with Award Fee Plan)</p>									
0024AA	<p>Award Fee Pool (1 Oct 01 through 28 Feb 02)</p> <table border="0"> <tr> <td></td> <td align="center"><u>From</u></td> <td align="center"><u>Change</u></td> <td align="center"><u>To</u></td> </tr> <tr> <td>Est. Cost</td> <td align="right">\$ 1,414,980</td> <td align="right">\$ 22,696</td> <td align="right">\$ 1,437,676</td> </tr> </table>		<u>From</u>	<u>Change</u>	<u>To</u>	Est. Cost	\$ 1,414,980	\$ 22,696	\$ 1,437,676	\$ 1,437,676
	<u>From</u>	<u>Change</u>	<u>To</u>							
Est. Cost	\$ 1,414,980	\$ 22,696	\$ 1,437,676							
0024AB	<p>Award Fee Pool (1 Mar 02 through 31 Aug 02)</p> <table border="0"> <tr> <td></td> <td align="center"><u>From</u></td> <td align="center"><u>Change</u></td> <td align="center"><u>To</u></td> </tr> <tr> <td>Est. Cost</td> <td align="right">\$ 1,789,714</td> <td align="right">\$ 28,369</td> <td align="right">\$ 1,818,083</td> </tr> </table>		<u>From</u>	<u>Change</u>	<u>To</u>	Est. Cost	\$ 1,789,714	\$ 28,369	\$ 1,818,083	\$ 1,818,083
	<u>From</u>	<u>Change</u>	<u>To</u>							
Est. Cost	\$ 1,789,714	\$ 28,369	\$ 1,818,083							
0024AC	<p>Award Fee Pool (1 Sep 02 through 30 Sep 02)</p> <table border="0"> <tr> <td></td> <td align="center"><u>From</u></td> <td align="center"><u>Change</u></td> <td align="center"><u>To</u></td> </tr> <tr> <td>Est. Cost</td> <td align="right">\$ 294,783</td> <td align="right">\$ 4,728</td> <td align="right">\$ 299,511</td> </tr> </table>		<u>From</u>	<u>Change</u>	<u>To</u>	Est. Cost	\$ 294,783	\$ 4,728	\$ 299,511	\$ 299,511
	<u>From</u>	<u>Change</u>	<u>To</u>							
Est. Cost	\$ 294,783	\$ 4,728	\$ 299,511							
	TOTAL PROPOSED AWARD FEE	\$ 3,555,270								

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SECTION B - SUPPLIES OR SERVICES AND PRICES/COST (con't)
Launch Operations and Support Contract
Option Period 4 - FY 02 (1 Oct 01 - 30 Sep 02)

Item No.	Description	Est. Cost								
0025	Service Systems Upgrades & Modifications Upon direction by the Contracting Officer, the contractor will prepare a cost and technical proposal to accomplish service systems upgrades and modifications. Contract type will be determined by individual request for proposal, and work will be added by individual subCLINs. See contract clause H-25. The government's estimated cost for this line item is \$5M. Each upgrade/modification requires a DD250 (See Section D)	\$ 7,314,951								
	<table border="0"> <tr> <td></td> <td align="center"><u>From</u></td> <td align="center"><u>Change</u></td> <td align="center"><u>To</u></td> </tr> <tr> <td>Est. Cost</td> <td align="right">\$ 7,938,128</td> <td align="right">\$ (623,177)</td> <td align="right">\$ 7,314,951</td> </tr> </table>		<u>From</u>	<u>Change</u>	<u>To</u>	Est. Cost	\$ 7,938,128	\$ (623,177)	\$ 7,314,951	
	<u>From</u>	<u>Change</u>	<u>To</u>							
Est. Cost	\$ 7,938,128	\$ (623,177)	\$ 7,314,951							
0025AA	#12163 - Provide Power to Ground Test Equipment Room A-10, LC-40 (Design Only)	\$ 4,742.00								
0025AB	#12170-Provide Fall Protection Tie-Offs for use during Grating Operations at LC-40 (Design Only)	\$ 10,257.00								
0025AC	#12041- Provide OSHA Compliant Platform Inserts between Vehicle and UES Platform, Level 17, MST, LC-40 (Design Only)	\$ 7,414.00								
0025AD	#12200 - Provide Power to Ground Test Equipment Room A-10, LC-40 (Build)	\$ 9,091.00								
0025AE	#12201-Provide Fall Protection Tie-Offs for use during Grating Operations at LC-40 (Build)	\$ 12,987.00								
0025AF	#12198- Provide OSHA Compliant Platform Inserts between Vehicle and UES Platform, Level 17, MST, LC-40 (Build)	\$ 8,121.00								
0025AG	#12010-Provide Potable Water (IAW Acceptable 45CES/CEV Standars) for SPIF Facility 70000 (Design Only) - Cancelled	\$ 8,745.00								
0025AH	#12153-Provide Structural, Power, & Cooling Support for SIRTF Mission GSE, Level 9B, MST, LC-17B	\$ 22,339.00								
0025AK	#12018 - Provide Capability to Remotely Start FECU after Power Outages, LC-17B	\$ 3,352.00								
0025AL	#12157 - Provide Capability to Limit Crane Bridge and Trolley Travel, NPF (Design Only)	\$ 13,647.00								
0025AM	#12053 - Prevent Contact Between Hoist Wire Rope and 220T SMARF Crane Structure (Design Only)	\$ 13,306.00								

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SECTION B - SUPPLIES OR SERVICES AND PRICES/COST (con't)
Launch Operations and Support Contract
Option Period 4 - FY 02 (1 Oct 01 - 30 Sep 02)

0025AN	#12142 - Provide Capability to Control Emergency Brakes, 220 & 500 Ton Cranes, SMARF (Design Only)	\$	11,565.00
0025AP	#12147 - Provide Safe Means of Accessing PLC Data, 220 & 500 Ton Cranes, SMARF (Design Only)	\$	11,015.00
0025AQ	#12214 - Switch Vapor Detection System From Facility Power to UPS Power, MST, LC-17A&B (Design/Implement)	\$	9,136.00
0025AR	#12215 - Provide Proper Environmental Conditions for UPS Room, Lvl 4 1/2, VIB (Design Only)	\$	10,241.00
0025AS	#12222- Provide Proper Environmental Conditions for UPS Room, Lvl 4 1/2, VIB (Implement Only)	\$	17,883.00
ESTIMATED COSTS (CLINS 0021 – 0023)			\$ 36,151,713
AWARD FEE (CLIN 0024)			\$ 3,555,270
ESTIMATED COST (CLIN 0025)			\$ 7,314,951
ESTIMATED TOTAL FOR ALLCLINS (FY02)			\$ 47,021,934

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3.3.22-2 Standards of Performance – The standards of performance are shown in Figure 3.3.22.

Figure 3.3.22 Standards of Performance – Fire Detection and Alarm Systems		
Key Required Services	Performance Standard	Method of Surveillance
Support of fire detection systems and associated equipment	Systems are maintained and certified to be in a state of readiness and availability that meets operational requirements. Periodic inspections and fire alarm tests result in few and minor discrepancies.	Review of Operations and Maintenance Procedures for Service Systems (ADPL 024) and Control Plan for Operations and Maintenance (ADPL 035). Periodic inspections and tests of fire alarm systems.

3.3.23 Railroad System

3.3.23-1 Requirements –The contractor shall operate and maintain, including performing corrosion control, all of the Titan ITL railroad system, as identified in Appendix A with the exception of the rail sections and associated hardware to non-Titan facilities (MIS, RIS, SRS, and SLC-41), the railroad sections between Switch #4(MIS area) to the SRS North Gate, and railroad sections north of S1 North (near UCS8). Operation of the railroad is not exclusive to the LO&SC.

3.3.23-2 Standards of Performance – The standards of performance are shown in Figure 3.3.23.

Figure 3.3.23 Standards of Performance – Railroad System		
Key Required Services	Performance Standard	Method of Surveillance
O&M of Titan ITL railroad system	Railroad system is operated and maintained safely to accomplish all mission requirements. System availability is maintained at a level of readiness that meets all operational requirements.	Monitoring of performance during tests, missions, and exercises. Periodic inspections and tests.

3.3.24 Access Control

3.3.24-1 Requirements – The contractor shall operate and maintain special access control systems at the SPIF and SLC 40/41 as needed. The contractor shall provide special access control for the SPIF, SLC 40/41, DPF, and NPF when required by PRD.

3.3.24-2 Standards of Performance – The standards of performance are shown in Figure 3.3.24.

Figure 3.3.24 Standards of Performance – Access Control		
Key Required Services	Performance Standard	Method of Surveillance
O&M of special access control systems at the SPIF and SLC 40 and 41, as needed	Systems are properly operated to maintain security requirements. System availability is maintained at a level of readiness that meets all operational requirements.	Monitoring of performance during tests, missions, and exercises. Periodic inspections and tests.
Provide special access control for SPIF, SLC 40/41, DPF, and NPF	Access control procedures are developed in accordance with DoD, USAF, and 45th SW directives. They are properly executed to eliminate unauthorized entry.	Review of access control procedures. Periodic inspections.

- **Low Voltage** – UPS, IPS, automatic or manual, back-up diesel generators, where dedicated, and all associated circuits including electrical/motor backup generator's and associated hook-up points. All components from, and including, the low voltage connector of the power transformer includes: the bus bar, all circuits, switch gears, and outlets supplying power throughout the facility, internal/external bulbs, fixtures, and ballast's emergency lighting. Interface point is first facility main disconnect which is 480V or lower (includes the disconnect).

Environmental

- **Cleanroom** – Monitoring, detection, and reporting systems for particulate matter and non-volatile residue; also includes: walls, floor, ceiling, air shower assemblies, all clean-room garments, shoe cleaners, floor vacuums, and floor.
- **Fire Protection** – Suppression and detection. Includes piping, interior alarm wiring, valves, nozzles, software controls, detectors, warning, and all associated hardware. Interface point for a wet system, is cut-off valve prior to the riser and includes the valve.
- **HVAC** – HVAC (Heating, Ventilating, and Air Conditioning) includes: software, air handlers, motors, drive assemblies, chillers, compressors, cooling towers, boilers, humidifier/dehumidifier, air exhaust, purge fans, associated pneumatic and electronic monitor and control components, and all associated support equipment.
- **Oxygen Hazard Monitoring** – Detection and reporting systems for Oxygen depletion.
- **Propellant Vapor Detection** – Detection and reporting systems for propellant vapors.

Equipment

- **Cold Soak** – Operation and maintenance of Cold-Soak equipment.
- **Facility Control Monitoring Systems** – Operation and maintenance of all facility control monitoring systems. Includes all cabling, consoles, and associated equipment.
- **Online Lightning Monitoring System** – Sensors, wiring, conduit, portable and installed monitoring devices (workstations).
- **Railroad** – All railroad tracks and subsurface below tracks, locomotives (Not required for period of 1 Apr 98-30 Sep 02), flat rail cars, rail ties, rail splices, track switches, etc. (Includes rails inside facilities, as well as outdoor.)
- **Security Alarm System** – Operation and maintenance of security alarm system and all associated equipment. (This is not the Advanced Technology Electronic Security System.)
- **X-Ray** – Operation and maintenance of all X-ray equipment.

Fluid and Gas

- **Breathing Air** – Breathing Air from, and including, the tube bank connector to, and including, the facility-installed breathing air connector.
- **Compressed System Air** – Compressed System Air from, and including, the compressor intake to, and including, the facility installed connectors.
- **Fuel** – Includes fuel fill, vent, drain, and scrubbers.
- **Gaseous CO2 System** – Includes dewar, piping, dry ice generation, etc.
- **Gaseous Helium System** – Gaseous Helium from, and including, the tube bank connector to, and including, the facility-installed interface.
- **Gaseous Nitrogen** – From and including installed pressure vessels, the tube bank connector or designated control valve to, and including, the facility-installed interface.

Water

- **Containment** – Industrial effluent and sediment, including disposal, pumps, piping, valves, etc.
- **Deluge/Overpressure Suppression** – Valves, pipes, nozzles, monitoring and control system, and associated hardware.
- **Potable Water** – All domestic water. Facility plumbing and associated hardware.
- **Pump Station Equipment** – Including all equipment and hardware associated with providing pressurized water, including but not limited to tanks, pipes, pumps, etc. Interface is the outlet side of cut-off valve supplying water to the pump station supply tank.
- **Sanitary Sewer** – Interface is downstream side of the potable water supply valve, includes toilets, sinks, storm drains, etc.

Appendix A-2 – Spacecraft Service Systems

1.0 Purpose and Scope

This appendix identifies the critical facilities, and some of the systems and equipment in those facilities, supporting spacecraft service systems at CCAS.

2.0 Responsibilities

Spacecraft Service Systems are composed of, but not limited to, the following components in Figure A-2-1, Spacecraft Critical Facilities Database, shown on pages A-5 through A-13. It identifies the systems and equipment in each of the critical spacecraft service facilities which the LO&SC shall operate and maintain.

3.0 Facilities

Spacecraft service facilities listed below require Facility Management. Facilities include, but are not limited to:

- | | |
|---------------------------|--|
| 3.1 ESA 60 Complex | 3.5 Spacecraft Processing Integration Facility (SPIF) area |
| 3.2 E & L, Facility 1704* | 3.6 Launch Support Facility area |
| 3.3 Area 59 | 3.7 ITL X-Ray area |
| 3.4 SAB Compound | |

*Not a requirement for Option Period 2 (FY 00), Option Period 3 (FY 01), and Option Period 4 (FY 02)

Figure A-2-1 Spacecraft Critical Facilities Database (continued)

Generator Building – Facility 34716- Deleted		
System	Sub-system	Notes
Communication	Public Address System	Deleted
Communication	TOPS/Digital Voice	Deleted
Communication	Telephone/LAN wiring	Deleted
Electrical	Low Voltage	Deleted
Electrical	Grounding	Deleted
Environmental	HVAC	Deleted
Environmental	Fire Protection	Deleted
Structure	Special Purpose Doors	Deleted
Structure	Basic Structure	Deleted
Water	Sanitary Sewer	Deleted
Water	Potable Water	Deleted
Interim Hardware Storage Facility – Facility 34715-Deleted		
System	Sub-system	Notes
Communication	TOPS/Digital Voice	Deleted
Communication	Telephone/LAN wiring	Deleted
Communication	Public Address System	Deleted
Electrical	Low Voltage	Deleted
Electrical	Grounding	Deleted
Environmental	HVAC	Deleted
Environmental	Fire Protection	Deleted
Structure	Special Purpose Doors	Deleted
Structure	Basic Structure	Deleted
Water	Sanitary Sewer	Deleted
Water	Potable Water	Deleted
Launch Support Facility – Facility 1777		
System	Sub-system	Notes
Communication	Public Address System	
Communication	Telephone/LAN wiring	
Communication	TOPS/Digital Voice	
Communication	Wide band Transmission	
Communication	RF Transmission	
Communication	Narrow band Transmission	
Electrical	Grounding	
Electrical	Low Voltage	
Environmental	Fire Protection	
Environmental	HVAC	
Equipment	Facility Control Monitoring Systems	
Equipment	Security Alarm System*	
Structure	Basic Structure	
Water	Potable Water	
Water	Sanitary Sewer	

* Not a requirement for Option Period 2 (FY 00), Option Period 3(FY 01), and Option Period 4 (FY 02)

Figure A-4-1 Atlas Critical Facilities Database		
Blockhouse – Facility 5501*		
System	Sub-system	Notes
Communication	Telephone/LAN wiring	
Communication	RF Transmission	RF for hand radios
Communication	Narrow band Transmission	All equipment associated with sequencer
Communication	Antennas	Antenna supports sequencer
Communication	TOPS/Digital Voice	
Communication	Public Address System	
Environmental	Fire Protection	
Environmental	HVAC	8 ton and 30 ton unit
Equipment	Facility Control Monitoring Systems	
Mechanical	Elevators	Material Lift
Mechanical	Misc. Support Equipment	Bunker Periscopes
Safety	Eye washes /Decontaminate showers	
Safety	Hazard Notification	Evacuation Horn
Structure	Special Purpose Doors	*Blast door is not a requirement for Option 4 (FY 02)
Structure	Basic Structure	
Water	Sanitary Sewer	
Water	Potable Water	
CX-36A – Facility 5500**		
System	Sub-system	Notes
Communication	Telephone/LAN wiring	
Communication	Wide band Transmission	
Communication	Narrow band Transmission	
Communication	TOPS/Digital Voice	
Communication	Public Address System	
Environmental	Propellant Vapor Detection	
Environmental	HVAC	All HVAC except ECS; include ramp pressure blower, instrumentation cubicle, explosion proof units
Environmental	Fire Protection	
Environmental	Oxygen Hazard Monitoring	Units on service tower
Equipment	Online Lightning Monitoring System*	*Not a requirement for Option Period's 1 (FY99), 2 (FY 00), 3 (FY 01), and 4 (FY 02).
Equipment	Facility Control Monitoring Systems	
Mechanical	Elevators	2 elevators
Safety	Eye washes/Decontaminate Showers	
Structure	Basic Structure	Identified critical structures: MST – FACILITY 5553, UT – FACILITY 5500, LSB – FACILITY 5510

** CX-36A – Facility 5500 in caretaker status 17 January-30 September 2002

2.0 Responsibilities

Titan Service Systems are composed of, but not limited to, the following components in Figure A-5-1, Critical Facilities Database, shown on pages A-25 through A-32. It identifies the systems and equipment in each of the critical Titan facilities which the LO&SC shall operate and maintain.

3.0 Facilities

Titan service facilities listed below require Facility Management. The Titan facilities include, but are not limited to:

- 3.1 Space Launch Complex 40
- 3.2 Deleted
- 3.3 Solid Motor Assembly and Readiness Facility (SMARF) area
- 3.4 Solid Motor Assembly Building (SMAB) (East & High Bays) area
- 3.5 Vertical Integration Building area
- 3.6 Payload Fairing Cleaning Building
- 3.7 Launch Operations Control Center area
- 3.8 Hangar AM area
- 3.9 Hangar E, Facility 1612
- 3.10 Pump Station #7 area
- 3.11 ITL Warehouse area
- 3.12 Missile Inert Storage (MIS) area
- 3.13 Receipt Inspection Shop (RIS) area
- 3.14 Segment Ready Storage (SRS) Building area
- 3.15 Titan Railroad System

Figure A-5-1 Titan Critical Facilities Database (continued)		
Payload Fairing Cleaning Building – Facility 70503 (concluded)		
System	Sub-system	Notes
Mechanical	Misc. Support Equipment	Equipment used in cleanrooms except robot
Mechanical	Cranes and Hoists	
Mechanical	Crane Support Equipment	
Safety	Eye washes /Decontaminate showers	
Safety	Fall Protection	
Structure	Special Purpose Flooring	
Structure	Basic Structure	
Structure	Special Purpose Doors	
Water	Potable Water	
Water	Sanitary Sewer	
Pump Station #7 – Facility 29150		
System	Sub-system	Notes
Communication	Narrow band Transmission	
Communication	Telephone/LAN wiring	
Communication	Public Address System	
Electrical	Low Voltage	
Electrical	Grounding	
Environmental	HVAC	
Environmental	Fire Protection	
Fluid and Gas	Compressed System Air	
Fluid and Gas	Fuel	Diesel
Safety	Eye washes /Decontaminate showers	
Structure	Basic Structure	
Water	Potable Water	
Water	Sanitary Sewer	
Water	Pump Station Equipment	
Railroad/Car System – Facility 20350*		
System	Sub-system	Notes
Equipment	Railroad (operation not exclusive to LO&SC)	tracks, subsurface below tracks, ties, splices, switches
Equipment	Railroad	Locomotives. Provide organizational level maintenance only.**
Equipment	Railroad	Ox ullage railcars – corrosion control only
Equipment	Railroad	Fuel ullage railcars – corrosion control only
Solid Motor Assembly And Readiness Facility – Facility 69800		
System	Sub-system	Notes
Communication	Wide band Transmission	
Communication	Narrow band Transmission	
Communication	Telephone/LAN wiring	
Communication	Public Address System	
Communication	CCTV	Currently being installed

* Railroad/car System – facility 20350 transfers to LO&SC responsibility on 1 October 1998

**Not a requirement for Option Period 2 (FY00), Option Period 3 (FY 01), and Option Period 4 (FY 02)

Appendix A-12 – Ordnance Service Systems

1.0 Purpose and Scope

This appendix identifies the critical facilities and some of the systems and equipment in those facilities, supporting ordnance services at CCAS.

2.0 Responsibilities

The LO&SC shall operate, maintain, and control the facilities and systems identified in Figure A-12-1. This responsibility includes the requirement to perform facility management of these facilities. O&M responsibilities required through 30 Sep 02.

Figure A-12-1 Ordnance Critical Facilities Database

Minuteman 1- Facility 72650		
System	Sub-system	Notes
Communication	Public Address System	Area and Facility
Communication	Telephone/LAN Wiring	
Communication	Grounding	
Communication	Low Voltage	
Environmental	HVAC	includes in-ground diesel fuel tank
Structure	Basic Structure	
Structure	Special Purpose Doors	
Minuteman 2- Facility 72665		
System	Sub-system	Notes
Communication	Public Address System	Area and Facility
Communication	Telephone/LAN Wiring	
Communication	Grounding	
Communication	Low Voltage	
Environmental	HVAC	includes above ground diesel tank
Structure	Basic Structure	
Structure	Special Purpose Doors	
Minuteman 3- Facility 72680		
System	Sub-system	Notes
Communication	Public Address System	Area and Facility
Communication	Telephone/LAN Wiring	
Communication	Grounding	
Communication	Low Voltage	
Structure	Basic Structure	
Structure	Special Purpose Doors	