

2. AMENDMENT/MODIFICATION NO. P00086	3. EFFECTIVE DATE 01-Oct-2001	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO.(If applicable)
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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)	CODE	
			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 "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: Diana S. Zeller
Email: diana.zeller@patrick.af.mil
321-494-5590

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. Zeller, Contract Manager</i>	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) ANDREA M. ADAMS Contracting Officer
15B. CONTRACTOR/OFFEROR <i>Judith A. Zeller</i> (Signature of person authorized to sign)	15C. DATE SIGNED <i>9/16/02</i>
	16B. UNITED STATES OF AMERICA BY <i>Judith A. Zeller</i> (Signature of Contracting Officer)
	16C. DATE SIGNED <i>9/16/02</i>

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

Standard Form 30 (Block 14 continued)

A. The purpose of this supplemental agreement is to

1. Realign funds from CLIN 0022 to CLIN 0021 and from CLIN 0025 to CLINs 0021 and subCLINs 0024AA through 0024AC (Award Fee). This realignment will support contract activities through 30 Sep 02 in response to the contractor's 75% Notification Letter No. 02-090C for CLINs 0021 and CLIN 0022 dated June 10, 2002.

2. Make appropriate SOW revisions to support the changes in definitions for Maintenance, Modifications and Upgrades, and Systems Operations and Maintenance.

There is 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"

<u>Page Ref</u>	<u>CLIN</u>	<u>Changed From</u>	<u>Changed To</u>	<u>Net Change</u>
11 of 65	0021	\$ 33,219,252	\$ 39,345,995	\$ 6,126,743
11 of 65	0022	\$ 2,932,461	\$ 2,625,586	\$ (306,875)
11 of 65	0024AA	\$ 1,437,676	\$ 1,670,470	\$ 232,794
11 of 65	0024AB	\$ 1,818,083	\$ 2,109,077	\$ 290,994
11 of 65	0024AC	\$ 299,511	\$ 348,010	\$ 48,499
11 of 65	Total Award Fee	\$ 3,555,270	\$ 4,127,557	\$ 572,287
12 of 65	0025	\$ 7,314,951	\$ 922,796	\$(6,392,155)
12 a of 65	Total CLIN 0021-0023	\$ 36,151,713	\$ 41,971,581	\$ 5,819,868
12a of 65	Total Award Fee CLIN 0024	\$ 3,555,270	\$ 4,127,557	\$ 572,287
12a of 65	Total CLIN 0025	\$ 7,314,951	\$ 922,796	\$(6,392,155)

Total Net Change to Section B: \$0.00

2. SECTION G - CONTRACT ADMINISTRATION DATA

Total Net Change in Section G: \$0.00

C. As a result of the above referenced changes, remove the contract pages listed under Column I and insert the revised pages listed under Column II. All changes are annotated by a vertical line in the right margin.

Column I (Remove)

Page 11 of 65
Page 12 of 65
Page 12a of 65
SOW, page 2
SOW, page 33
SOW, page 34

Column II (Insert)

Page 11 of 65
Page 12 of 65
Page 12a of 65
SOW, page 2 and 2a
SOW, page 33
SOW, page 34

D. All other terms and conditions remain the same.

E. RELEASE OF CLAIMS

In consideration of the modification agreed to herein as complete equitable adjustment for this change, the contractor hereby releases the government from any and all liability under this contract for further equitable adjustment attributable to such facts or circumstances giving rise to the above mentioned change and modification P00086. // END PAGE //

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>	\$ 39,345,995								
	<table> <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">\$ 33,219,252</td> <td align="right">\$ 6,126,743</td> <td align="right">\$ 39,345,995</td> </tr> </table>		<u>From</u>	<u>Change</u>	<u>To</u>	Est. Cost	\$ 33,219,252	\$ 6,126,743	\$ 39,345,995	
	<u>From</u>	<u>Change</u>	<u>To</u>							
Est. Cost	\$ 33,219,252	\$ 6,126,743	\$ 39,345,995							
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>	\$ 2,625,586								
	<table> <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">\$ (306,875)</td> <td align="right">\$ 2,625,586</td> </tr> </table>		<u>From</u>	<u>Change</u>	<u>To</u>	Est. Cost	\$ 2,932,461	\$ (306,875)	\$ 2,625,586	
	<u>From</u>	<u>Change</u>	<u>To</u>							
Est. Cost	\$ 2,932,461	\$ (306,875)	\$ 2,625,586							
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>	\$ 1,670,470								
	<table> <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">\$ 1,437,676</td> <td align="right">\$ 232,794</td> <td align="right">\$ 1,670,470</td> </tr> </table>		<u>From</u>	<u>Change</u>	<u>To</u>	Est. Cost	\$ 1,437,676	\$ 232,794	\$ 1,670,470	
	<u>From</u>	<u>Change</u>	<u>To</u>							
Est. Cost	\$ 1,437,676	\$ 232,794	\$ 1,670,470							
0024AB	<p>Award Fee Pool (1 Mar 02 through 31 Aug 02)</p>	\$ 2,109,077								
	<table> <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">\$ 1,818,083</td> <td align="right">\$ 290,994</td> <td align="right">\$ 2,109,077</td> </tr> </table>		<u>From</u>	<u>Change</u>	<u>To</u>	Est. Cost	\$ 1,818,083	\$ 290,994	\$ 2,109,077	
	<u>From</u>	<u>Change</u>	<u>To</u>							
Est. Cost	\$ 1,818,083	\$ 290,994	\$ 2,109,077							
0024AC	<p>Award Fee Pool (1 Sep 02 through 30 Sep 02)</p>	\$ 348,010								
	<table> <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">\$ 299,511</td> <td align="right">\$ 48,499</td> <td align="right">\$ 348,010</td> </tr> </table>		<u>From</u>	<u>Change</u>	<u>To</u>	Est. Cost	\$ 299,511	\$ 48,499	\$ 348,010	
	<u>From</u>	<u>Change</u>	<u>To</u>							
Est. Cost	\$ 299,511	\$ 48,499	\$ 348,010							
	TOTAL PROPOSED AWARD FEE	\$ 4,127,557								

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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)	\$ 922,796								
	<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">\$ 7,314,951</td> <td align="right">\$ (6,392,155)</td> <td align="right">\$ 922,796</td> </tr> </table>		<u>From</u>	<u>Change</u>	<u>To</u>	Est. Cost	\$ 7,314,951	\$ (6,392,155)	\$ 922,796	
	<u>From</u>	<u>Change</u>	<u>To</u>							
Est. Cost	\$ 7,314,951	\$ (6,392,155)	\$ 922,796							
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 SIRT 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
0025AT	#12219- Provide Structural, Power, & Cooling Support for SIRTf Mission GSE, Level 9B, MST, LC-17B (Build)	\$	38,378.00
0025AU	#12022- Provide Controlled Environment for UPS Power, Mechanical Room, SMAB (Design/Build)	\$	19,238.00
0025AV	#12224- Provide Safe Means of Accessing PLC Data, 220 & 500 Ton Cranes, SMARF (Build)	\$	19,241.00
0025AW	#12213- Provide Controls for Maintaining HVAC Parameters, Delta Ops Bldg (Implement)	\$	45,357.00
ESTIMATED COSTS (CLINS 0021 – 0023)			\$ 41,971,581
AWARD FEE (CLIN 0024)			\$ 4,127,557
ESTIMATED COST (CLIN 0025)			\$ 922,796
ESTIMATED TOTAL FOR ALLCLINS (FY02)			\$ 47,021,934

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1.3 Definitions

1.3.1 Configuration Management – A discipline applying technical and administrative direction and surveillance over the life cycle of configuration items (CI) to:

- (a) Identify and document the functional and physical characteristic of CIs
- (b) Control changes to CIs and their related baseline documentation
- (c) Record and report information needed to manage CIs effectively including the status of proposed changes and implementation status of approved changes
- (d) Audit CIs to verify conformance to specifications, drawings, interface control documents, and other contract requirements

1.3.2 Critical System – A system whose failure could cause the failure or premature loss of a space asset on the ground, during the ascent, or in orbit, or delay its processing or launch.

1.3.3 Launch Service System – A system that provides a specific, mission essential support function with the launch vehicle during launch processing.

1.3.4 Logistics – The supply of material necessary to sustain an operational system.

1.3.5 Maintenance – The sustainment of equipment, facilities, systems, and infrastructure in approved operational configuration. This includes all predictive, preventive, corrective, and reliability-centered maintenance, as well as, return to original functional/performance capability (even if not identical in kind). Replacement or modification of systems, assemblies/sub-systems, or components that meet existing requirements (requirements have not changed per a systems engineering requirements analysis) and are return-to-print shall be accomplished as a maintenance function, supported by systems engineering for updating drawings, baselines, and documentation, as required.

1.3.6 Reserved.

1.3.7 Modifications and Upgrades – Upgrades or modification changes to configuration controlled and maintained items or systems to either improve equipment/system capabilities or satisfy new functional/performance requirements. Replacement of systems, assemblies/sub-systems, or components by alternative solutions that meet changed, updated, or newly identified functional customer needs (top level systems requirements), as identified by a systems engineering requirements analysis, and are not intended as return-to-print shall be accomplished as a systems upgrade or modification.

1.3.8 Mission Control Network – The communication system required to exercise command and control for spacecraft and launch vehicle launch operations.

1.3.9 Mission Control Operations – The continuous verification of the operability of the mission control network.

1.3.10 Operations – The control of equipment, systems, and facilities in order to accomplish a specific purpose.

1.3.11 Spacecraft Service System – A system that provides a specific, mission essential support function to the spacecraft during flight processing.

1.3.12 Service System Management – The aggregation of systems engineering, configuration management, logistics and safety analyses, and modifications and upgrade activities to maintain reliable systems operation at best value to the users.

1.3.13 Systems Engineering – An interdisciplinary approach to evolve and verify an integrated and life cycle balanced set of system product and process solutions that satisfy customer needs.

3.3.1-2.4 The contractor shall conduct a “validation run” to rehearse any new procedure involving potential safety hazards. The validation run shall consist of a “talk through and walk through” of the procedure at the work site by the work team before its first use. Red-lined changes to the procedure shall be incorporated into the procedure before any subsequent use of the procedure.

3.3.1-3 Standards of Performance – The standards of performance are shown in Figure 3.3.1.

Figure 3.3.1 Standards of Performance – Operations and Maintenance Control		
Key Required Services	Performance Standard	Method of Surveillance
Identify and control discrepant conditions	CMMS provides timely and accurate tracking of all discrepant conditions and positive control of corrective actions.	Control Plan for Operations and Maintenance. Review of CMMS.
Overall schedule coordination	All operations and maintenance activities are planned, scheduled, coordinated, integrated, and tracked with minimal impact to mission support requirements. Automated work control system and CMMS function to maximize productivity and system readiness. The maintenance backlog is minimized.	Control Plan for Operations and Maintenance. Review of automated work control and CMMS database. Mission Readiness Reviews.

3.3.2 Systems Operations And Maintenance

3.3.2-1 Requirements – The contractor shall operate and maintain systems and equipment to meet requirements using approved procedures and pad safety plans.

3.3.2-2 Narrative Description

3.3.2-2.1 The contractor shall assign engineers to each O&M Systems Group. These deployed engineers shall be the on-site systems experts for day-to-day issues involved with O&M and the primary interface with the engineering staff in Systems Management to implement a methodological interdisciplinary approach to the maintenance and configuration of service systems.

3.3.2-2.2 The contractor shall train and certify operators and maintenance personnel.

3.3.2-2.3 The contractor shall provide planned and unplanned maintenance, perform preventive and corrective maintenance, and replace or modify components and assemblies as required. The replacement of components and assemblies due to a nonconformance, anticipated nonconformance, or end-of-life cycle may result in installation of hardware and/or software that is not identical to the original configuration item’s physical, functional, or performance characteristics (form, fit, function). The contractor shall implement Class 2 ECPs, as appropriate, for return-to-print corrective maintenance actions on component and assembly replacements, for which a suitable substitute is available, but are intended to meet the same baselined system requirements.

3.3.2-2.4 The contractor shall alert cognizant service system management of all hardware or procedural discrepancies for appropriate resolution.

3.3.2-2.5 Systems and equipment maintenance shall include all necessary corrosion control efforts.

3.3.2-3 Standards of Performance – The standards of performance are shown in Figure 3.3.2.

Figure 3.3.2 Standards of Performance – Systems Operations and Maintenance		
Key Required Services	Performance Standard	Method of Surveillance
O&M personnel training	O&M personnel training is defined in a Training Plan. Training courses are comprehensive and up-to-date. Training is complete and documented. Training leads to certification for critical areas such as crane operators, welders, ordnance handlers, clean room technicians, etc.	Review of Training Plan and Training Records Database.
Planned and unplanned maintenance	Planned and unplanned maintenance is performed to specified procedures and standards, and is completed in time to support mission requirements.	Random sampling and review of maintenance procedures. Observation through on-line access to CMMS database.
Preventative maintenance	Preventative maintenance is planned, scheduled, and performed using a CMMS. RCM methodologies and other predictive techniques are used to maximize system readiness.	Review of CMMS documentation and description. Observation through on-line access to CMMS database.
Corrective Maintenance	Corrective maintenance is scheduled and performed using a CMMS. Corrective maintenance is prioritized and executed to maximize system readiness and effectiveness.	Review of CMMS documentation and description. Review of corrective maintenance priorities and execution.
Resolution of hardware and procedural discrepancies	Hardware and procedural discrepancies are documented and controlled in the CMMS. Systems engineering and configuration management processes are used to resolve discrepancies.	Review of SEMP and Configuration Management Plan. Random sampling of documented maintenance procedures.
Customer Satisfaction	Support to LO&SC customers is responsive, meets defined mission requirements, and is of high quality.	Customer responses to LO&SC customer questionnaires.

3.3.3 Mission Support

3.3.3-1 Requirements – The contractor shall provide operational support on all service systems listed in Appendix A.

3.3.3-2 Narrative Description

3.3.3-2.1 The contractor shall provide a Flow Manager for launch vehicle systems and a Flow Manager for spacecraft systems for each mission. These Flow Managers shall serve as the single point of contact for LO&SC support to that flight article. They shall be the primary LO&SC interface with the 45 SW operational unit (1 SLS, and 3 SLS), the Field Program Manager, launch vehicle or spacecraft contractors, associate contractors, and other external organizations.

3.3.3-2.2 The contractor shall ensure that the LO&SC requirements of the MPICD and PRD are met.

3.3.3-2.3 The contractor shall provide support for the government, prime aerospace contractors (to include Titan 5-day second shift), and other contractors, for a variety of operations, including but not limited to – repair and maintenance on ground support equipment, MST movement, crane operations, and minor modifications to real property.

3.3.3-2.4 The contractor shall provide membership and participate in mission and facility meetings.