

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

2. AMENDMENT/MODIFICATION NO. P00031		3. EFFECTIVE DATE 1 APR 00	4. REQUISITION/PURCHASE REQ. NO. F50LGP01400300	5. PROJECT NO. (If applicable) N/A
6. ISSUED BY 45 TH CONTRACTING SQUADRON 1201 EDWARD H. WHITE ST, BLDG 423 PATRICK AFB, FL 32926-3238		7. ADMINISTERED BY (If other than Item 6) CODE	CODE	

8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) SVERDRUP TECHNOLOGY, INC 600 Wm. Northern Blvd, PO Box 884 Tullahoma, TN 37388		(X)	9A. AMENDMENT OF SOLICITATION NO.
CODE			9B. DATED (SEE ITEM 11)
FACILITY CODE		X	10A. MODIFICATION OF CONTRACT/ORDER NO. F08650-98-C-0035
			10B. DATED (SEE ITEM 13) 23 Apr 98

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 offers is extended, is not extended.

Offers 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 1 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 ACKNOWLEDGEMENT 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)
See Schedule G **INC \$1,941,101**

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

<input checked="" type="checkbox"/>	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.
<input type="checkbox"/>	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 (APH 84)
<input type="checkbox"/>	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.)

POC: Linda Krager
 PHONE: 321-853-5033
 E-MAIL: Linda.Krager@patrick.af.mil

SEE PAGE TWO

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) Kenneth Webb, Contracts Manager		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) LINDA S. KRAGER Contracting Officer	
15B. CONTRACTOR/OFFEROR <i>Kenneth Webb</i>	15C. DATE SIGNED 14 June 00	16B. UNITED STATES OF AMERICA <i>Linda S. Krager</i> (Signature of Contracting Officer)	16C. DATE SIGNED 15 June 00

CONTINUATION OF SF-30

1. The purpose of this supplemental agreement is to increase the level of effort and fund equitable adjustment for communication taskings addressed in Sverdrup proposal (Rev 2), 11 May 00. These changes are authorized under FAR 52.243-2, entitled "Changes-Cost Reimbursement (Aug 87)(Alt II)(Apr 84). Effective date of change is 01 Apr 00 through 30 Sep 04. FY 00 funding is increased by \$1,941,101 (\$1,764,637 in costs and \$176,464 in award fee). Total increase in contract value is \$15,512,126.

2. SUMMARY OF CHANGES -- "SUMMARY OF CHANGES FOR THE PAYMENT OFFICE"

A. Part I, Section A, SF-33, Block 20, pen and ink change:

Change from \$86,835,885 to Read \$88,776,986

Net Change of \$1,941,101

B. Part I – Schedule, Section B:

Fiscal Year	Element	Changed From	Changed To	Net Change
FY00	CLIN 0011	\$26,768,033	\$28,532,670	\$1,764,637
	CLIN 0014AB	\$1,404,702	\$1,551,756	\$147,054
	CLIN 0014AC	\$235,655	\$265,065	\$29,410
	Total 0011-0013	\$27,724,586	\$29,489,223	\$1,764,637
	Total 0014	\$2,681,890	\$2,858,354	\$176,464
	Total FY00	\$35,225,345	\$37,166,446	\$1,941,101
FY01	CLIN 0016	\$23,747,891	\$26,739,179	\$2,991,288
	CLIN 0019AA	\$1,119,485	\$1,244,125	\$124,640
	CLIN 0019AB	\$1,343,382	\$1,492,944	\$149,562
	CLIN 0019AC	\$223,897	\$248,824	\$24,927
	Total 0016-0018	\$26,867,628	\$29,858,916	\$2,991,288
	Total 0019	\$2,686,764	\$2,985,893	\$299,129
	Total FY01	\$29,554,392	\$32,844,809	\$3,290,417
FY02	CLIN 0021	\$22,973,877	\$26,028,252	\$3,054,375
	CLIN 0024AA	\$1,079,430	\$1,206,695	\$127,265
	CLIN 0024AB	\$1,295,317	\$1,448,035	\$152,718
	CLIN 0024AC	\$215,887	\$241,341	\$25,454
	Total 0021-0023	\$25,906,338	\$28,960,713	\$3,054,375
	Total 0024	\$2,590,634	\$2,896,071	\$305,437
Total FY02	\$28,496,972	\$31,856,784	\$3,359,812	
FY03	CLIN 0026	\$23,004,669	\$26,119,179	\$3,114,510
	CLIN 0029AA	\$1,069,091	\$1,198,861	\$129,770

<u>Fiscal Year</u>	<u>Element</u>	<u>Changed From</u>	<u>Changed To</u>	<u>Net Change</u>
FY03	CLIN 0029AB	\$1,282,909	\$1,438,635	\$155,726
	CLIN 0029AC	\$213,817	\$239,772	\$25,955
	Total 0026-0028	\$25,658,174	\$28,772,684	\$3,114,510
	CLIN 0029	\$2,565,817	\$2,877,268	\$311,451
	Total FY03	\$28,223,991	\$31,649,952	\$3,425,961
FY04	CLIN 0031	\$23,259,245	\$26,436,368	\$3,177,123
	CLIN 0034AA	\$1,084,813	\$1,217,193	\$132,380
	CLIN 0034AB	\$1,301,775	\$1,460,631	\$158,856
	CLIN 0034AC	\$216,962	\$243,438	\$26,476
	Total 0031-0033	\$26,035,495	\$29,212,618	\$3,177,123
	Total 0034	\$2,603,550	\$2,921,262	\$317,712
	Total FY04	\$28,639,045	\$32,133,880	\$3,494,835
Summary	Opt 2 Total	\$35,225,345	\$37,166,446	\$1,941,101
	Opt 3 Total	\$29,554,392	\$32,844,809	\$3,290,417
	Opt 4 Total	\$28,496,972	\$31,856,784	\$3,359,812
	Opt 5 Total	\$28,223,991	\$31,649,952	\$3,425,961
	Opt 6 Total	\$28,639,045	\$32,133,880	\$3,494,835
	Total Contract Value	\$201,750,285	\$217,262,411	\$15,512,126

Total Net Change to Section B: \$15,512,126.

3. Section G – CONTRACT ADMINISTRATION DATA

A. Page 23a of 65, ACRN CA, 5703400 300 83LE 253099 255LO 01 35182F 662400 F62400:

(1) Add PR# - F50LGP01400300= \$1,941,101 (P00031)

(2) Change ACRN total from \$6,906,567 to \$8,847,668 for a net change of \$1,941,101

4. The statement of work is changed as indicated on change pages.

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

Column I (Remove)

Column II (Insert)

Page 7 thru 16
Page 23a
Page 39
Page 49-52
Page A-1 and A-2

Page 7 thru 16
Page 23a
Page 39
Page 49-52
Page A-1 and A-2

6. All other terms and conditions remain the same.

In consideration of this 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 adjustments attributable to this change.

////////////////////////////////////// END PAGE //

SECTION B - SUPPLIES OR SERVICES AND PRICES/COST (cont'd)

**Launch Operations and Support Contract
Option Period 2 - FY 00 (1 Oct 99 - 30 Sep 00)**

<u>Item No.</u>	<u>Description</u>	<u>Estimated Cost</u>								
0011	<p>Operations and Maintenance, Operations and Support and Operations and Management 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 <u>April 1998</u>, and the performance standards document. <u>COST-PLUS-AWARD-FEE</u></p> <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">\$ 26,768,033</td> <td align="right">\$ 1,764,637</td> <td align="right">\$ 28,532,670</td> </tr> </table>		<u>From</u>	<u>Change</u>	<u>To</u>	Est. Cost	\$ 26,768,033	\$ 1,764,637	\$ 28,532,670	\$ 28,532,670
	<u>From</u>	<u>Change</u>	<u>To</u>							
Est. Cost	\$ 26,768,033	\$ 1,764,637	\$ 28,532,670							
0012	<p>Systems Management 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 <u>April 1998</u>, and the performance standards document. <u>COST-PLUS-AWARD-FEE</u></p> <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">\$ 956,553</td> <td align="right">\$ -</td> <td align="right">\$ 956,553</td> </tr> </table>		<u>From</u>	<u>Change</u>	<u>To</u>	Est. Cost	\$ 956,553	\$ -	\$ 956,553	\$ 956,553
	<u>From</u>	<u>Change</u>	<u>To</u>							
Est. Cost	\$ 956,553	\$ -	\$ 956,553							
0013	<p>Data 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. <u>COST-PLUS-AWARD-FEE</u></p>	NSP								
0014	<p>Award Fee Pool (In accordance with Award Fee Plan)</p>									
0014AA	<p>Award Fee Pool (1 Oct 99 through 28 Feb 00)</p> <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">\$ 1,041,533</td> <td align="right">\$ -</td> <td align="right">\$ 1,041,533</td> </tr> </table>		<u>From</u>	<u>Change</u>	<u>To</u>	Est. Cost	\$ 1,041,533	\$ -	\$ 1,041,533	\$ 1,041,533
	<u>From</u>	<u>Change</u>	<u>To</u>							
Est. Cost	\$ 1,041,533	\$ -	\$ 1,041,533							
0014AB	<p>Award Fee Pool (1 Mar 00 through 31 Aug 00)</p> <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">\$ 1,404,702</td> <td align="right">\$ 147,054</td> <td align="right">\$ 1,551,756</td> </tr> </table>		<u>From</u>	<u>Change</u>	<u>To</u>	Est. Cost	\$ 1,404,702	\$ 147,054	\$ 1,551,756	\$ 1,551,756
	<u>From</u>	<u>Change</u>	<u>To</u>							
Est. Cost	\$ 1,404,702	\$ 147,054	\$ 1,551,756							
0014AC	<p>Award Fee Pool (1 Sep 00 through 30 Sep 00)</p> <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">\$ 235,655</td> <td align="right">\$ 29,410</td> <td align="right">\$ 265,065</td> </tr> </table>		<u>From</u>	<u>Change</u>	<u>To</u>	Est. Cost	\$ 235,655	\$ 29,410	\$ 265,065	\$ 265,065
	<u>From</u>	<u>Change</u>	<u>To</u>							
Est. Cost	\$ 235,655	\$ 29,410	\$ 265,065							
	TOTAL PROPOSED AWARD FEE	\$ 2,858,354								

SECTION B - SUPPLIES OR SERVICES AND PRICES/COST (cont'd)
Launch Operations and Support Contract
Option Period 2 - FY 00 (1 Oct 99 - 30 Sep 00)

<u>Item No.</u>	<u>Description</u>	<u>Estimated Cost</u>												
0015	<p>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)</p> <table border="0" style="width: 100%; margin-left: 40px;"> <tr> <td></td> <td align="center"><u>From</u></td> <td></td> <td align="center"><u>Change</u></td> <td></td> <td align="center"><u>To</u></td> </tr> <tr> <td>Est. Cost</td> <td align="right">\$ 4,818,869</td> <td></td> <td align="center">\$ -</td> <td></td> <td align="right">\$ 4,818,869</td> </tr> </table>		<u>From</u>		<u>Change</u>		<u>To</u>	Est. Cost	\$ 4,818,869		\$ -		\$ 4,818,869	\$ 4,818,869
	<u>From</u>		<u>Change</u>		<u>To</u>									
Est. Cost	\$ 4,818,869		\$ -		\$ 4,818,869									
0015AA	NPF Project	\$ 1,166,566												
	ESTIMATED COSTS (CLINS 0011 – 0013)	\$ 29,489,223												
	AWARD FEE (CLIN 0014)	\$ 2,858,354												
	ESTIMATED COST (CLIN 0015)	\$ 4,818,869												
	ESTIMATED TOTAL FOR ALLCLINS (FY00)	\$ 37,166,446												

SECTION B - SUPPLIES OR SERVICES AND PRICES/COST (cont'd)
Launch Operations and Support Contract
Option Period 3 - FY 01 (1 Oct 00 - 30 Sep 01)

<u>Item No.</u>	<u>Description</u>	<u>Estimated Cost</u>												
0016	<p>Operations and Maintenance, Operations and Support and Operations and Management 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 <u>April 1998</u>, and the performance standards document. <u>COST-PLUS-AWARD-FEE</u></p> <table> <tr> <td></td> <td align="center"><u>From</u></td> <td></td> <td align="center"><u>Change</u></td> <td></td> <td align="center"><u>To</u></td> </tr> <tr> <td>Est. Cost</td> <td align="right">\$ 23,747,891</td> <td>\$</td> <td align="right">2,991,288</td> <td>\$</td> <td align="right">26,739,179</td> </tr> </table>		<u>From</u>		<u>Change</u>		<u>To</u>	Est. Cost	\$ 23,747,891	\$	2,991,288	\$	26,739,179	\$ 26,739,179
	<u>From</u>		<u>Change</u>		<u>To</u>									
Est. Cost	\$ 23,747,891	\$	2,991,288	\$	26,739,179									
0017	<p>Systems Management 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 <u>April 1998</u>, and the performance standards document. <u>COST-PLUS-AWARD-FEE</u></p> <table> <tr> <td></td> <td align="center"><u>From</u></td> <td></td> <td align="center"><u>Change</u></td> <td></td> <td align="center"><u>To</u></td> </tr> <tr> <td>Est. Cost</td> <td align="right">\$ 3,119,737</td> <td>\$</td> <td align="center">-</td> <td>\$</td> <td align="right">3,119,737</td> </tr> </table>		<u>From</u>		<u>Change</u>		<u>To</u>	Est. Cost	\$ 3,119,737	\$	-	\$	3,119,737	\$ 3,119,737
	<u>From</u>		<u>Change</u>		<u>To</u>									
Est. Cost	\$ 3,119,737	\$	-	\$	3,119,737									
0018	<p>Data 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. <u>COST-PLUS-AWARD-FEE</u></p>	NSP												
0019	<p>Award Fee Pool (In accordance with Award Fee Plan)</p>													
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	<u>From</u>		<u>Change</u>		<u>To</u>									
Est. Cost	\$ 1,119,485	\$	124,640	\$	1,244,125									
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	<u>From</u>		<u>Change</u>		<u>To</u>									
Est. Cost	\$ 1,343,382	\$	149,562	\$	1,492,944									
0019AC	<p>Award Fee Pool (1 Sep 01 through 30 Sep 01)</p> <table> <tr> <td></td> <td align="center"><u>From</u></td> <td></td> <td align="center"><u>Change</u></td> <td></td> <td align="center"><u>To</u></td> </tr> <tr> <td>Est. Cost</td> <td align="right">\$ 223,897</td> <td>\$</td> <td align="right">24,927</td> <td>\$</td> <td align="right">248,824</td> </tr> </table>		<u>From</u>		<u>Change</u>		<u>To</u>	Est. Cost	\$ 223,897	\$	24,927	\$	248,824	\$ 248,824
	<u>From</u>		<u>Change</u>		<u>To</u>									
Est. Cost	\$ 223,897	\$	24,927	\$	248,824									
	TOTAL PROPOSED AWARD FEE	\$ 2,985,893												

SECTION B - SUPPLIES OR SERVICES AND PRICES/COST (cont'd)
Launch Operations and Support Contract
Option Period 3 - FY 01 (1 Oct 00 - 30 Sep 01)

<u>Item No.</u>	<u>Description</u>	<u>Estimated Cost</u>
0020	<p>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)</p> <p align="center"> <u>From</u> <u>Change</u> <u>To</u> Est. Cost \$ - \$ - \$ - </p>	<p>\$ - TBD</p>
	<p align="right">ESTIMATED COSTS (CLINS 0016 – 0018)</p> <p align="right">AWARD FEE (CLIN 0019)</p> <p align="right">ESTIMATED COST (CLIN 0020)</p> <p align="right">ESTIMATED TOTAL FOR ALLCLINS (FY01)</p>	<p align="right">\$ 29,858,916</p> <p align="right">\$ 2,985,893</p> <p align="right">\$ -</p> <p align="right">\$ 32,844,809</p>

SECTION B - SUPPLIES OR SERVICES AND PRICES/COST (cont'd)

**Launch Operations and Support Contract
Option Period 4 - FY 02 (1 Oct 01 - 30 Sep 02)**

<u>Item No.</u>	<u>Description</u>	<u>Estimated Cost</u>												
0021	<p>Operations and Maintenance, Operations and Support and Operations and Management 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 <u>April 1998</u>, and the performance standards document. <u>COST-PLUS-AWARD-FEE</u></p> <table border="0"> <tr> <td></td> <td align="center"><u>From</u></td> <td></td> <td align="center"><u>Change</u></td> <td></td> <td align="center"><u>To</u></td> </tr> <tr> <td>Est. Cost</td> <td align="right">\$ 22,973,877</td> <td>\$</td> <td align="right">3,054,375</td> <td>\$</td> <td align="right">26,028,252</td> </tr> </table>		<u>From</u>		<u>Change</u>		<u>To</u>	Est. Cost	\$ 22,973,877	\$	3,054,375	\$	26,028,252	\$ 26,028,252
	<u>From</u>		<u>Change</u>		<u>To</u>									
Est. Cost	\$ 22,973,877	\$	3,054,375	\$	26,028,252									
0022	<p>Systems Management 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 <u>April 1998</u>, and the performance standards document. <u>COST-PLUS-AWARD-FEE</u></p> <table border="0"> <tr> <td></td> <td align="center"><u>From</u></td> <td></td> <td align="center"><u>Change</u></td> <td></td> <td align="center"><u>To</u></td> </tr> <tr> <td>Est. Cost</td> <td align="right">\$ 2,932,461</td> <td>\$</td> <td align="center">-</td> <td>\$</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 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. <u>COST-PLUS-AWARD-FEE</u></p>	NSP												
0024	<p>Award Fee Pool (In accordance with Award Fee Plan)</p>													
0024AA	<p>Award Fee Pool (1 Oct 99 through 28 Feb 00)</p> <table border="0"> <tr> <td></td> <td align="center"><u>From</u></td> <td></td> <td align="center"><u>Change</u></td> <td></td> <td align="center"><u>To</u></td> </tr> <tr> <td>Est. Cost</td> <td align="right">\$ 1,079,430</td> <td>\$</td> <td align="right">127,265</td> <td>\$</td> <td align="right">1,206,695</td> </tr> </table>		<u>From</u>		<u>Change</u>		<u>To</u>	Est. Cost	\$ 1,079,430	\$	127,265	\$	1,206,695	\$ 1,206,695
	<u>From</u>		<u>Change</u>		<u>To</u>									
Est. Cost	\$ 1,079,430	\$	127,265	\$	1,206,695									
0024AB	<p>Award Fee Pool (1 Mar 01 through 31 Aug 01)</p> <table border="0"> <tr> <td></td> <td align="center"><u>From</u></td> <td></td> <td align="center"><u>Change</u></td> <td></td> <td align="center"><u>To</u></td> </tr> <tr> <td>Est. Cost</td> <td align="right">\$ 1,295,317</td> <td>\$</td> <td align="right">152,718</td> <td>\$</td> <td align="right">1,448,035</td> </tr> </table>		<u>From</u>		<u>Change</u>		<u>To</u>	Est. Cost	\$ 1,295,317	\$	152,718	\$	1,448,035	\$ 1,448,035
	<u>From</u>		<u>Change</u>		<u>To</u>									
Est. Cost	\$ 1,295,317	\$	152,718	\$	1,448,035									
0024AC	<p>Award Fee Pool (1 Sep 01 through 30 Sep 01)</p> <table border="0"> <tr> <td></td> <td align="center"><u>From</u></td> <td></td> <td align="center"><u>Change</u></td> <td></td> <td align="center"><u>To</u></td> </tr> <tr> <td>Est. Cost</td> <td align="right">\$ 215,887</td> <td>\$</td> <td align="right">25,454</td> <td>\$</td> <td align="right">241,341</td> </tr> </table>		<u>From</u>		<u>Change</u>		<u>To</u>	Est. Cost	\$ 215,887	\$	25,454	\$	241,341	\$ 241,341
	<u>From</u>		<u>Change</u>		<u>To</u>									
Est. Cost	\$ 215,887	\$	25,454	\$	241,341									
	TOTAL PROPOSED AWARD FEE	\$ 2,896,071												

SECTION B - SUPPLIES OR SERVICES AND PRICES/COST (cont'd)
Launch Operations and Support Contract
Option Period 4 - FY 02 (1 Oct 01 - 30 Sep 02)

<u>Item No.</u>	<u>Description</u>	<u>Estimated Cost</u>
0025	<p>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)</p> <p align="center"> <u>From</u> <u>Change</u> <u>To</u> Est. Cost \$ - \$ - \$ - </p>	<p>\$ - TBD</p>
<p>ESTIMATED COSTS (CLINS 0021 – 0023)</p>		<p>\$ 28,960,713</p>
<p>AWARD FEE (CLIN 0024)</p>		<p>\$ 2,896,071</p>
<p>ESTIMATED COST (CLIN 0025)</p>		<p>\$ -</p>
<p>ESTIMATED TOTAL FOR ALLCLINS (FY02)</p>		<p>\$ 31,856,784</p>

SECTION B - SUPPLIES OR SERVICES AND PRICES/COST (cont'd)

**Launch Operations and Support Contract
Option Period 5 - FY 03 (1 Oct 02 - 30 Sep 03)**

<u>Item No.</u>	<u>Description</u>	<u>Estimated Cost</u>
0026	<p>Operations and Maintenance, Operations and Support and Operations and Management 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 <u>April 1998</u>, and the performance standards document.</p> <p align="center"><u>From</u> <u>Change</u> <u>To</u></p> <p>Est. Cost \$ 23,004,669 \$ 3,114,510 \$ 26,119,179</p>	\$ 26,119,179
0027	<p>Systems Management 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 <u>April 1998</u>, and the performance standards document.</p> <p><u>COST-PLUS-AWARD-FEE</u></p> <p align="center"><u>From</u> <u>Change</u> <u>To</u></p> <p>Est. Cost \$ 2,653,505 \$ - \$ 2,653,505</p>	\$ 2,653,505
0028	<p>Data 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
0029	<p>Award Fee Pool (In accordance with Award Fee Plan)</p>	
0029AA	<p>Award Fee Pool (1 Oct 99 through 28 Feb 00)</p> <p align="center"><u>From</u> <u>Change</u> <u>To</u></p> <p>Est. Cost \$ 1,069,091 \$ 129,770 \$ 1,198,861</p>	\$ 1,198,861
0029AB	<p>Award Fee Pool (1 Mar 01 through 31 Aug 01)</p> <p align="center"><u>From</u> <u>Change</u> <u>To</u></p> <p>Est. Cost \$ 1,282,909 \$ 155,726 \$ 1,438,635</p>	\$ 1,438,635
0029AC	<p>Award Fee Pool (1 Sep 01 through 30 Sep 01)</p> <p align="center"><u>From</u> <u>Change</u> <u>To</u></p> <p>Est. Cost \$ 213,817 \$ 25,955 \$ 239,772</p>	\$ 239,772
	TOTAL PROPOSED AWARD FEE	\$ 2,877,268

SECTION B - SUPPLIES OR SERVICES AND PRICES/COST (cont'd)
Launch Operations and Support Contract
Option Period 5 - FY 03 (1 Oct 02 - 30 Sep 03)

<u>Item No.</u>	<u>Description</u>	<u>Estimated Cost</u>
0030	<p>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)</p> <p align="center"><u>From</u> <u>Change</u> <u>To</u></p> <p>Est. Cost \$ - \$ - \$ -</p>	<p>\$ -</p> <p align="center">TBD</p>
<p>ESTIMATED COSTS (CLINS 0026 – 0028)</p> <p>AWARD FEE (CLIN 0029)</p> <p>ESTIMATED COST (CLIN 0030)</p> <p>ESTIMATED TOTAL FOR ALLCLINS (FY03)</p>		<p>\$ 28,772,684</p> <p>\$ 2,877,268</p> <p>\$ -</p> <p>\$ 31,649,952</p>

SECTION B - SUPPLIES OR SERVICES AND PRICES/COST (cont'd)
Launch Operations and Support Contract
Option Period 6 - FY 04 (1 Oct 03 - 30 Sep 04)

<u>Item No.</u>	<u>Description</u>	<u>Estimated Cost</u>												
0031	<p>Operations and Maintenance, Operations and Support and Operations and Management 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 <u>April 1998</u>, and the performance standards document.</p> <p align="center"> <table> <tr> <td></td> <td align="center"><u>From</u></td> <td></td> <td align="center"><u>Change</u></td> <td></td> <td align="center"><u>To</u></td> </tr> <tr> <td>Est. Cost</td> <td align="right">\$ 23,259,245</td> <td>\$</td> <td align="right">3,177,123</td> <td>\$</td> <td align="right">26,436,368</td> </tr> </table> </p>		<u>From</u>		<u>Change</u>		<u>To</u>	Est. Cost	\$ 23,259,245	\$	3,177,123	\$	26,436,368	\$ 26,436,368
	<u>From</u>		<u>Change</u>		<u>To</u>									
Est. Cost	\$ 23,259,245	\$	3,177,123	\$	26,436,368									
0032	<p>Systems Management 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 <u>April 1998</u>, and the performance standards document.</p> <p><u>COST-PLUS-AWARD-FEE</u></p> <p align="center"> <table> <tr> <td></td> <td align="center"><u>From</u></td> <td></td> <td align="center"><u>Change</u></td> <td></td> <td align="center"><u>To</u></td> </tr> <tr> <td>Est. Cost</td> <td align="right">\$ 2,776,250</td> <td>\$</td> <td align="center">-</td> <td>\$</td> <td align="right">2,776,250</td> </tr> </table> </p>		<u>From</u>		<u>Change</u>		<u>To</u>	Est. Cost	\$ 2,776,250	\$	-	\$	2,776,250	\$ 2,776,250
	<u>From</u>		<u>Change</u>		<u>To</u>									
Est. Cost	\$ 2,776,250	\$	-	\$	2,776,250									
0033	<p>Data 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												
0034	<p>Award Fee Pool (In accordance with Award Fee Plan)</p>													
0034AA	<p>Award Fee Pool (1 Oct 99 through 28 Feb 00)</p> <p align="center"> <table> <tr> <td></td> <td align="center"><u>From</u></td> <td></td> <td align="center"><u>Change</u></td> <td></td> <td align="center"><u>To</u></td> </tr> <tr> <td>Est. Cost</td> <td align="right">\$ 1,084,813</td> <td>\$</td> <td align="right">132,380</td> <td>\$</td> <td align="right">1,217,193</td> </tr> </table> </p>		<u>From</u>		<u>Change</u>		<u>To</u>	Est. Cost	\$ 1,084,813	\$	132,380	\$	1,217,193	\$ 1,217,193
	<u>From</u>		<u>Change</u>		<u>To</u>									
Est. Cost	\$ 1,084,813	\$	132,380	\$	1,217,193									
0034AB	<p>Award Fee Pool (1 Mar 01 through 31 Aug 01)</p> <p align="center"> <table> <tr> <td></td> <td align="center"><u>From</u></td> <td></td> <td align="center"><u>Change</u></td> <td></td> <td align="center"><u>To</u></td> </tr> <tr> <td>Est. Cost</td> <td align="right">\$ 1,301,775</td> <td>\$</td> <td align="right">158,856</td> <td>\$</td> <td align="right">1,460,631</td> </tr> </table> </p>		<u>From</u>		<u>Change</u>		<u>To</u>	Est. Cost	\$ 1,301,775	\$	158,856	\$	1,460,631	\$ 1,460,631
	<u>From</u>		<u>Change</u>		<u>To</u>									
Est. Cost	\$ 1,301,775	\$	158,856	\$	1,460,631									
0034AC	<p>Award Fee Pool (1 Sep 01 through 30 Sep 01)</p> <p align="center"> <table> <tr> <td></td> <td align="center"><u>From</u></td> <td></td> <td align="center"><u>Change</u></td> <td></td> <td align="center"><u>To</u></td> </tr> <tr> <td>Est. Cost</td> <td align="right">\$ 216,962</td> <td>\$</td> <td align="right">26,476</td> <td>\$</td> <td align="right">243,438</td> </tr> </table> </p>		<u>From</u>		<u>Change</u>		<u>To</u>	Est. Cost	\$ 216,962	\$	26,476	\$	243,438	\$ 243,438
	<u>From</u>		<u>Change</u>		<u>To</u>									
Est. Cost	\$ 216,962	\$	26,476	\$	243,438									
	TOTAL PROPOSED AWARD FEE	\$ 2,921,262												

SECTION B - SUPPLIES OR SERVICES AND PRICES/COST (cont'd)
Launch Operations and Support Contract
Option Period 6 - FY 04 (1 Oct 03 - 30 Sep 04)

<u>Item No.</u>	<u>Description</u>	<u>Estimated Cost</u>
0035	<p>Service Systems Upgrades & Modifications</p> <p>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)</p> <p style="text-align: center;"><u>From</u> <u>Change</u> <u>To</u></p> <p>Est. Cost \$ - \$ - \$ -</p>	<p>\$ -</p> <p style="text-align: center;">TBD</p>
ESTIMATED COSTS (CLINS 0031 – 0033)		\$ 29,212,618
AWARD FEE (CLIN 0034)		\$ 2,921,262
ESTIMATED COST (CLIN 0035)		\$ -
ESTIMATED TOTAL FOR ALLCLINS (FY04)		\$ 32,133,880

SECTION B - SUPPLIES OR SERVICES AND PRICES/COST (cont'd)
Launch Operations and Support Contract

SUMMARY

1. Total Estimated Amount - FY 98 (Basic Period) (CLINs 0001 - 0005)	1 May 98 - 30 Sep 98	\$ 11,132,942
2. Total Estimated Amount - FY 99 (Option Period 1) (CLINs 0006-0010)	1 Oct 98 - 30 Sep 99	\$ 40,477,598
3. Total Estimated Amount - FY 00 (Option Period 2) (CLINs 0011-0015)	1 Oct 99 - 30 Sep 00	\$ 37,166,446
4. Total Estimated Amount - FY 01 (Option Period 3) (CLINs 0016-0020)	1 Oct 00 - 30 Sep 01	\$ 32,844,809
5. Total Estimated Amount - FY 02 (Option Period 4) (CLINs 0021-0025)	1 Oct 01 - 30 Sep 02	\$ 31,856,784
6. Total Estimated Amount - FY 03 (Option Period 5) (CLINs 0026-0030)	1 Oct 02 - 30 Sep 03	\$ 31,649,952
7. Total Estimated Amount - FY 04 (Option Period 6) (CLINs 0031-0035)	1 Oct 03 - 30 Sep 04	\$ 32,133,880
TOTAL ESTIMATED AMOUNT FY 00-06 (Items 1-7)		\$ 217,262,411

SECTION G - CONTRACT ADMINISTRATION DATA (cont'd)

ACRN	Acct Class Data	Appropriation/Lmt SubHead/CPN Recip DODAAD Supplement Accounting Classification Information	OBLIGATED AMOUNT
AN	5793400 309 83LE 25309S 555L0 01 33605F 662400 F62400		1,480,339
	PR# - F50LGZ82310200 = \$1,242,007 (P00007)		
	PR# - F50LGZ83430200 = \$ 252,000 (P00008)		
	PR# - F50LGZ82310200 = [\$10,839] (P00024)		
AP	5793400 309 83LE 25309T 555L0 01 35144F 662400 F62400		23,378,616
	PR# - F50LGZ 8231 0200 =+\$13,812,999 (P00007), +\$2,983,000 (P00008)		
	PR# - F50LGZ 8343 0200 =+\$1,368,000 (P00008), [P00010 = -(\$34,402AF)]		
	PR# - F55SLS 8294 0300 = \$400,000 (P00010)		
	PR# - F55SLS 9012 0300 = \$2,211,396 (P00010)		
	PR# - F55SLS 9075 0200 = \$248,994 (P00014)		
	PR# - F55SLS 9196 0500 = \$247,808 (P00015)		
	PR# - F55SLS 9104 1300 = \$2,297,979 (P00018)		
	PR# - F50LGZ 82310200 = [\$157,158] (P00024)		
AQ	5793400 309 83LE 25309U 555L0 01 35138F 662400 F62400		1,044,769
	PR# - F50LGZ 8231 0200 = \$531,998 (P00007)		
	PR# - F50LGZ 8343 0200 = \$118,000 (P00008)		
	[P00010 = (\$1,232 AF)]		
	PR# - F55SLS8301 0700 = \$100,000 (P00010)		
	PR# - F55SLS 9055 0500 = \$102,000 (P00010)		
	PR# - F55SLS 9104 1200 = \$199,422 (P00016)		
	PR# - F50LGZ82310200 = [\$5,419] (P00024)		
AR	5783020 158 3630 230770 43100 01 33110F 672300 F72300		\$ 92,000
	PR# - F50LGZ 9041 0100 = \$92,000 (P00010)		
CA	5703400 300 83LE 253099 555L0 01 35182F 662400 F62400		\$ 8,847,668
	PR# - F50LGZ91310100 = \$6,297,000 (P00025)		
	PR# - F50LGP01100400 = \$609,567 (P00030)		
	PR# - F50LGP01400300 = \$1,941,101 (P00031)		
CB	5703400 300 83LE 25309A 555L0 01 35119F 662400 F62400		\$ 1,904,000
	PR# - F50LGZ91310100 = \$1,904,000 (P00025)		
CC	5703400 300 83LE 25309D 555L0 01 35119F 662400 F62400		\$ 4,467,000
	PR# - F50LGZ91310100 = \$3,867,000 (P00025)		
	PR# - F51SLS01080200 = \$350,000 (P00029)		
	PR# - F51SLS00410100 = \$250,000 (P00029)		
CD	5703400 300 83LE 25309S 555L0 01 33605F 662400 F62400		\$ 1,494,000
	PR# - F50LGZ91310100 = \$1,494,000 (P00025)		

3.3.9 Communications

3.3.9-1 Requirements – The contractor shall survey, design, engineer, draft, install, maintain, and repair all communication cabling (includes fiber optics), circuits, wiring, conduits, and equipment/systems end-items (instruments) for facilities identified in Appendix A. Interfaces will be the nearest line demarcation point to the facility or launch complex fence line. The contractor is also responsible for the repair, or turn-in and replacement of Mission Console headsets and Explosion Proof headsets.

3.3.9-2 Standards of Performance – The standards of performance are shown in Figure 3.3.9.

Figure 3.3.9 Standards of Performance – Communications		
Key Required Services	Performance Standard	Method of Surveillance
Communications support	Communications systems are maintained in a state of readiness and availability that meets all operational requirements including emergency notification capability.	Mission Readiness Reviews. Communications support of test, pre-launch, and launch missions. Facility readiness inspections.

3.3.10 Space Launch Complex Refurbishment Activities

3.3.10-1 Requirements – The contractor shall plan, prepare, and execute maintenance activities for times when no vehicle is on the launch complex. This includes post-launch activities through next vehicle arrival. The contractor shall schedule and ensure modifications occur during refurbishment periods, if necessary. Activities that have vehicle constraints, like corrosion control efforts, must be completed to meet constraints.

3.3.10-2 Standards of Performance – The standards of performance are shown in Figure 3.3.10.

Figure 3.3.10 Standards of Performance – Space Launch Complex Refurbishment Activities		
Key Required Services	Performance Standard	Method of Surveillance
Refurbishment support	Refurbishment, modification, and corrosion control activities are successfully completed in time to support the next scheduled launch.	Review of Operations and Maintenance Procedures for Service Systems (ADPL 024) and Control Plan for Operations and Maintenance (ADPL 035).

3.3.11 Cleanrooms and Contamination Control

3.3.11-1 Requirements – The contractor shall provide janitorial support to the cleanrooms identified in Appendix A and Appendix I.

Figure 3.5 Standards of Performance – Quality Assurance Program		
Key Required Services	Performance Standard	Method of Surveillance
QA Program	QA Plan and programs meet the intent and requirements of ANSI/ASQC 9001. Mission and operational requirements are not adversely impacted by quality related performance.	Review and evaluation of implementing procedures. Annual review of work process and product conformance verifications. Periodic review of MRB documentation.
Inspection services	Required inspections that satisfy all quality requirements are scheduled and conducted in a timely manner. Reports of findings are accurately recorded and submitted.	Records review. Customer feedback.

3.6 Operations Support

3.6.1 Mission Control Operations – The contractor shall establish the configuration of a mission control network for core vehicle roll to pad, upper stage mate, facility verification, satellite vehicle mate, terminal countdown, demonstration, training simulation, network simulation, combined systems test, wet dress rehearsal, integrated crew exercise, and launch operations per 3.6.1.6. The mission control network consists of the communications links (secure and non secure voice, data, and fax circuits) within the Eastern Range and between inter-range facilities. The contractor shall coordinate mission documentation and test/launch operations with all participating agencies. The contractor shall develop a production schedule for the mission documentation that provides adequate time for coordination and review. The contractor shall also conduct periodic status reviews to surface items that require resolution or to highlight impediments to the document build process. The contractor shall provide mission control working group membership. The specific Mission Control Operations requirements in the area are defined in 3.6.1.1 through 3.6.1.6.

3.6.1.1 Communications Plan

3.6.1.1-1 Requirements – The contractor shall develop and maintain a communications plan for each mission event requiring multiple network node testing. Include communications network drawings, communications test plans and procedures, matrices, and other working documents for network setup and validation procedures for all voice and data lines. (ADPL 062)

3.6.1.1-2 Standards of Performance – The standards of performance are shown in Figure 3.6.1.1.

Figure 3.6.1.1 Standards of Performance – Communications Plan		
Key Required Services	Performance Standard	Method of Surveillance
Develop and maintain a communications plan	A comprehensive Communication Plan addresses all mission communications requirements and is submitted in a timely manner to support each mission event.	Review of Communications Plan (ADPL 062).

3.6.1.1-2.1 The contractor shall provide a “read only” copy of the draft Communications Plan, if unclassified, available on the SIIS for online review. The contractor shall also make available an e-mail screen for reviewers to submit comments.

3.6.1.2 Mission Scripts

3.6.1.2-1 Requirements – The contractor shall develop and maintain supporting mission scripts for payload operations to supplement the Final Countdown Document (OF/O2) or applicable MLV or STS mission documentation. Include specific items as identified in LO&SC Accessible Data Product Description in Appendix K. (ADPL 063)

3.6.1.2-2 Standards of Performance – The standards of performance are shown in Figure 3.6.1.2.

Figure 3.6.1.2 Standards of Performance – Mission Scripts		
Key Required Services	Performance Standard	Method of Surveillance
Develop and maintain Mission Scripts for payload operations	Mission scripts contain all required activities and mission events. Scripts are coordinated with all appropriate agencies and are submitted in time for review and preparation for launch.	Review of Mission Scripts (ADPL 063).

3.6.1.3 Launch Operations Handbook

3.6.1.3-1 Requirements – The contractor shall develop and maintain a launch operations handbook for launch team members. Develop or incorporate specific items as identified in LO&SC Accessible Data Products Description in Appendix K. (ADP 064)

3.6.1.3-2 Standards of Performance – The standards of performance are shown in Figure 3.6.1.3.

Figure 3.6.1.3 Standards of Performance – Launch Operations Handbook		
Key Required Services	Performance Standard	Method of Surveillance
Launch Operations Handbook	Prior to publication, the contents of Launch Operations Handbooks are coordinated with all appropriate agencies. Submittals are made on time and contain all required information in clearly presented formats.	Review of Launch Operations Handbook (ADPL 064).

3.6.1.4 Network Configuration

3.6.1.4-1 Requirements – The contractor shall coordinate changes to configuration for the mission control network. (ADPL 065 and 066)

3.6.1.4-2.1 The contractor shall prepare Console Level Voice Matrices (CLVM) for the facilities listed in Appendix B.

3.6.1.4-2.2 The contractor shall ensure all range users voice communication requirements are identified and their respective consoles are properly configured prior to needed tests and operations. Requirements will be identified through the review of UDS products, at the customer's direction, and by way of direct interface with range users. Consoles will be grouped based on functionality of the users and the configuration standardized where possible to allow relocation of personnel, without loss of communication capabilities, during outages and last minute changes.

3.6.1.4-2.3 The contractor shall establish a logical method for the placement of voice nets on the consoles to enhance the familiarization of consoles for users typically not operating consoles. The contractor shall ensure the methodology is as easy to change as possible.

3.6.1.4-2.4 The contractor shall review Program Requirements Document (PRDs), Operational Requirements (ORs), Operational Directives (ODs), and supporting instructional messages to ensure availability and adequacy of communication data and voice systems.

3.6.1.4-2.5 The contractor shall develop and coordinate, as required, OR expedites and UDS documentation modifications to account for mission changes.

3.6.1.4-2.6 The contractor shall develop a consolidated seating plan for the facilities listed in Appendix B.

3.6.1.4-3 Standards of Performance – The standards of performance are shown in Figure 3.6.1.4.

Figure 3.6.1.4 Standards of Performance – Network Configuration		
Key Required Services	Performance Standard	Method of Surveillance
Prepare CLVMs and Seating Plans	CLVMs are prepared with flexibility to support changes, while satisfying all communications requirements with user-friendly configurations.	Review of CLVMs and Seating Plans.
Identify Communication Requirements and Configure Consoles	Communication capabilities and console configurations meet mission requirements. Consoles are logically grouped to best meet mission requirements.	Review of Communication Plans (ADPL 065) and Mission Scripts (ADPL 066).
Review and Satisfy PRDs, ORs, ODs, and other UDS documents	CLVMs, communications support, and Seating Plans are properly coordinated and structured to support the requirements of PRDs, ORs, and ODs.	Review of Communication Plans (ADPL 065) and Mission Scripts (ADPL 066).

3.6.1.5 Scheduling

3.6.1.5-1 Requirements – The contractor shall schedule, with government approval, required range support for mission support operations.

3.6.1.5-2 Standards of Performance – The standards of performance are shown in Figure 3.6.1.5.

Figure 3.6.1.5 Standards of Performance – Scheduling		
Key Required Services	Performance Standard	Method of Surveillance
Range scheduling	Range schedules for mission support operations are prepared in a timely manner. Schedules are prepared through complete coordination with all involved agencies and organizations. Schedules are prepared in accordance with 45th SWR 55-10. Comprehensive consideration is given to PRDs, ORs, and ODs.	Review of range schedules.

3.6.1.6 Operation of Mission Control Network

3.6.1.6-1 Requirements – The contractor shall provide real-time support for the mission control network in support of NRO, DSP, DSCS, and Milstar missions.

3.6.1.6-2 Narrative Description

3.6.1.6-2.1 The contractor shall coordinate and troubleshoot with the ER, off-site support locations, and user contractors.

3.6.1.6-2.2 The contractor shall provide on-console network validation and network operations support before and/or during the mission event per Appendix B.

3.6.1.6-2.3 The contractor shall train users in the operation of designated communications equipment.

3.6.1.6-3 Standards of Performance – The standards of performance are shown in Figure 3.6.1.6.

Figure 3.6.1.6 Standards of Performance – Operation of Mission Control Network		
Key Required Services	Performance Standard	Method of Surveillance
Mission control network support	Coordination with all involved agencies ensures effective use of mission control network. Effective troubleshooting maximizes the availability of the network. Effective and timely training of network users supports mission success.	Monitoring of network performance and network availability. Review of network and communications training programs.

3.6.2 Ordnance Services

3.6.2-1 Requirements – The contractor shall perform all tasks related to management and control of Ordnance Services at the CCAS and other locations identified in Appendix A-12 and Appendix J. The Contractor shall receive ordnance materials; perform ordnance material condition inspections; store, maintain, modify, test, and check ordnance materials; issue ordnance materials and transport ordnance materials and items. The contractor shall perform off-site pickup and delivery services for Kennedy Space Center (KSC) and Eastern Range (ER) ordnance arriving at any of the following locations – Space Coast Executive Airport, Melbourne and Orlando, FL air terminals, and other points within 100 miles of the local area. Additionally,

Appendix A – Spacecraft/Launch Service Systems

1.0 Purpose and Scope

This appendix identifies the critical facilities, systems, and equipment comprising spacecraft/launch service systems at Cape Canaveral Air Station. Other facilities, systems, and/or equipment may be added as mission requirements develop or change. All systems identified are to be operated, maintained, certified, configuration controlled, and sustained by the contractor, unless otherwise noted.

Appendix A-1 – Systems/Equipment Definitions

Systems/Equipment Database Definitions

Communication

- **Antennas** – Antenna and all components, including rotator, rotator controller, cabling, and tubing.
- **CCTV** – Internal (Intra-Facility) cabling and equipment from Main Distribution Frame Panel connector to all distribution points, including conduit and end units.
- **Narrowband Transmission** – Internal (Intra-Facility) cabling and equipment from Filter Panel (downstream of MDF Panel) to all distribution points, including conduit.
- **Public Address System** – Internal (Intra-Facility) cabling, conduit, and all associated hardware, software, and end units.
- **RF Transmission** – Internal (Intra-Facility) cabling/tubing and equipment from antenna connection to all internal distribution points, including conduit.
- **LAN Wiring** – Internal (Intra-Facility) cabling only. Interface point at wire coming out of the communication panel to plug in to end-unit.
- **Telephone** - Internal (Intra-Facility) cabling, equipment and end-units from interface point.
- **Digital Voice** – Internal (Intra-Facility) racks, cabling, conduit, and associated hardware, software, and end-items. Does not include depot level (level 2) repair on end-units.
- **TOPS/Green Phones** – Internal (Intra-Facility) racks, cabling, conduit, and associated hardware, software, and end-units. Includes depot level (level 2) repair on end-units.
- **Wide Band Transmission** – Internal (Intra-Facility) cabling and equipment from Main Distribution Frame (MDF) Panel to all internal distribution points.
- **Timing & Sequencing Systems** – Internal (Intra-Facility) cabling and equipment from Main Distribution Frame (MDF) Panel to all internal distribution points.

Electrical

- **Grounding** – Technical, facility, and lightning grounding. Includes installed grids, receptacles, bus bars, down conductors, air terminal, and ground rods which make up equipment, technical, and static grounds; also includes conductive tile, conductive coatings, bonding, and grounding.
- **High Voltage** – All systems/components above 480V.

- **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). Start date is 1 Oct 98.
- **Railroad** – All railroad tracks and subsurface below tracks, locomotives, 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.